

NINTH BIENNIAL REPORT

OF THE

# Bureau of Labor Statistics

FOR THE

STATE OF IOWA

1899-1900

C. F. WENNERSTRUM  
COMMISSIONER



DES MOINES:  
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## LETTER OF TRANSMITTAL.

STATE OF IOWA, }  
BUREAU OF LABOR STATISTICS. }

DES MOINES, Oct. 1, 1901.

*To the Governor :*

SIR.—I have the honor to transmit herewith for your consideration the Ninth Biennial Report of the Bureau of Labor Statistics for the years 1899 and 1900.

The work of the bureau has been rather varied in character. Inspection of factories in the state has absorbed a great deal of the time and energy of the chief and his deputy. I personally investigated 276 factories and my deputy, Mr. Holder, 52. With the results of our investigations I will deal at length in a later connection. Another important undertaking was the investigation of the strikes that have occurred in Iowa in the past six years, beginning in July, 1894, up to and including 1900. In addition to the just mentioned undertakings, the bureau has compiled statistics relative to the wage-earners of Iowa, showing nativity, wages, nature of occupation, etc.; and also statistics of the organizations of labor unions. Besides this we have made an investigation of the movements for an eight-hour labor day as it affects labor generally, also the progress of manual training in Iowa schools, the development of co-operative undertakings in Iowa, and profit-sharing in adjacent states.

My original plans for this report included the results of another statistical inquiry relative to the effect on our manufacturing, commercial, and labor interests in Iowa of the employment of the convicts in our state penitentiaries. It is a subject that has been under much popular discussion and legislative consideration during the past three or four years; but lack of time and means with which to prosecute the inquiries prevented the bureau going into the matter as it most certainly should be gone into. The employment of convict labor has been the cause of much

complaint on the part of labor, and manufacturing and commercial interests, throughout the country, and there is marked opposition to the employment of the convicts in this state where their product comes in competition with free labor. For the most part the opposition to convict labor is, in my opinion, justified; but it is not possible, nor would it be proper for me prior to such an investigation as I had hoped to make, to say to just what extent and in what directions Iowa industry and labor are injuriously affected by the employment of the state's convicts at the penitentiaries.

I had also planned to investigate fully to what extent ordinary business pursuits are followed on the first day of the week, commonly called Sunday, and which is described in the Code, section 5040, as "Breach of Sabbath," but reasons given in the preceding paragraph prevented the inquiry in this case as well. The conducting of business on Sunday is an injustice to the employees who are thus compelled to forego one day's rest each week, and a wrong to the business man who faithfully observes the Sabbath, giving him one day less of business each week than the man who transacts business seven days in the week. The reasons for Sabbath observance are so obvious that I need hardly say more on the subject.

The bureau was fortunate in being able to secure the results of investigations into certain phases of industrial life undertaken by students of those questions. One of these is found in Part II. of this report and is a monograph entitled "Some of the Economic and Industrial Phases of the Amana Society, or Community of True Inspiration," by Mrs. Bertha Horack Shambaugh of Iowa City. The investigation was undertaken by Mrs. Shambaugh at my suggestion and urgent request. I had spent nearly three days at the Amanas, personally investigating the practical workings of this remarkably interesting communistic experiment, which has been in progress in that unique community for forty-six years. I found, however, that I was unable to secure all of the data that was desirable, and learning that Mrs. Shambaugh had an acquaintance with the community, having written a number of short studies showing the sociological and religious life of the members of the society, I asked her to prepare the monograph for this report. This deals almost entirely with the industrial phases of this interesting communistic society, which has achieved such notable success in Iowa county. Following Mrs. Shambaugh's study is a paper by another Iowa student of

social economics, Miss Kate B. Miller of Indianola, who has investigated the subject of free employment-offices in the United States. She began the investigation on her own initiative, but came to the Bureau for assistance, which has been given her as much as our time and means allowed, in return for which she has kindly consented to the publication of the results of her work in this report. Following Miss Miller's paper is a short sketch of the Icarian Colony (now extinct) in Adams county. Personal investigations were made, and the statements as we have them from the press were verified in every particular.

In Part II. will also be found four articles upon subjects of statistics, education, labor and trade, which I deem of sufficient importance to reprint in this report. The first is a monograph by the Hon. Carroll D. Wright, United States commissioner of labor at Washington, on "The Influence and Value of Labor Statistics." The second is an interesting and instructive paper upon "The Kindergarten as an Educational Force," delivered by Prof. Francis E. Cook, principal of the Wayman Crow school of St. Louis, before a convention of officials of bureau of labor statistics, which convened in St. Louis, May 23d, 1901. The author discusses this primary educational work entirely from an industrial point of view. The third paper is by Dr. Calvin Milton Woodward, of Washington University, of St. Louis, on "Manual Training vs. Trades Schools," delivered before the same convention. The writer lays great emphasis upon the thought that manual training is of vital importance to laboring men, and should be sought for as a means of increasing their industrial capacity. The fourth and last of these reprints is the paper by Hon. Carroll D. Wright, United States commissioner of labor, on "The Workings of the Department of Labor" at Washington, D. C.

The demands on the Bureau for statistical information have increased very materially since I entered upon the duties of the office, so much so as to trench very seriously upon the time of the office force. Such demand upon the part of the public is entirely legitimate and is no matter for complaint. On the contrary it is a cause for congratulation: as it indicates the interest taken in problems concerning which the bureau was especially created to furnish information.

The work of the bureau is fully indicated in the tabular statements included in this report. I deem it my duty, however, to indicate, in briefer form than is possible in the general report of

the office, the results of the various activities of the Bureau during the past two years, and the lessons which they teach, and to urge upon you to recommend certain changes in the law affecting the requirements and the statutes regulating the trades and industries of the state as they affect employers and employes.

## I.

## FACTORY INSPECTION.

The most important work of the Bureau during the past two years has been the inspection of factories and industrial establishments throughout the state with a view to ascertaining the sanitary conditions of such establishments, the means employed for protecting workmen from fires and dangerous machinery, and the employment of children. This investigation has been practically an innovation in the undertakings of the Bureau. My predecessor pointed out the serious needs of factory inspection, and urged legislation to this end.

The statute governing the work of the Bureau (sec. 3472 of the Code of 1897) provides that the Commissioner of the Bureau of Labor Statistics shall have the power, "upon the complaint of two or more persons, or upon his failure to otherwise obtain information in accordance with the provisions of this act," to enter any factory. Realizing that from the nature of the case it would be practically impossible to secure reliable and satisfactory information respecting conditions of labor within the factories of the state by correspondence and solicitation, I called upon the Attorney-General, in a letter under date of June 8, 1900, asking his official opinion as to the right and power of the Commissioner of Labor under the aforesaid section. Hon. Milton Remley, in an opinion rendered June 11th, declared that in his opinion the Commissioner of Labor was fully empowered under said section to enter any and all factories for the purpose of securing information relative to such matters as the escape of employes in case of fire, means of preventing accidents, ventilation of buildings, etc. The Attorney General's opinion is so important that I present his letter below:

"OFFICE OF ATTORNEY-GENERAL."

DES MOINES, IOWA, June 11, 1900.

C. F. WENNERSTRUM,

*Commissioner of Labor Statistics, Des Moines, Iowa.*

DEAR SIR:—Yours of the eighth duly to hand, in which you refer to sec-

tion 2472 of the Code and ask: "Must the Commissioner first obtain or secure the complaint of two or more persons before he can enter such factory, or does the law mean that he must make an examination of a factory on receiving such complaint, and does the law quoted authorize him to make an examination on his own initiative after having first asked permission in writing to inspect such factory, as the law prescribes?"

The language of the statute is: "The Commissioner of the Bureau of Labor Statistics shall have the power, upon the complaint of two or more persons, or upon his failure to otherwise obtain information in accordance with the provisions of this act, to enter any factory, mill, etc., when the same is open or in operation, upon a request being made in writing, for the purpose of gathering facts and statistics such as are contemplated by this act." Section 2474 of the Code provides, in general terms, the kind of information that may be required to be furnished by the owners or managers of such factories, mills, workshops, mines, etc. The information given may not prove satisfactory. Some matters about which information is to be asked, such as, what means are provided for the escape of employes in case of fire; what measures are taken to prevent accidents to employes from machinery; how are the buildings ventilated, etc.; could be obtained better by a personal inspection, which could be given. The purpose of the law, among other things, is unquestionably to secure the best possible protection for the life and the health of the employes. A power often implies a duty. Where complaint is made by employes or others, as to the insufficiency of the appliances to secure the life, health, and comfort of the employes, I think it is the duty of the Commissioner to make a personal inspection, exercising thereby the powers to enter the building, when it is open or in operation, after making a request therefor in writing. But, if for any cause, he deems the information which he has obtained not satisfactory, I do not think he is limited in his action until after complaint is filed. He may make request in writing, and if granted enter the building, and if refused permission he may proceed to enter the building without the consent of the owner.

Yours respectfully,

(Signed) MILTON REMLEY,

*Attorney General.*

Fortified with this opinion of the law officer of the state, I proceeded to investigate all factories in the state so far as my time and means would allow. The greater part of the latter five months of 1900 was spent in such inspection, and some inspections were made in January and February of this year. We confined our investigations to establishments in towns of 5,000 and over, as a rule. In several instances, however, we visited factories in the smaller towns and cities. The total number investigated aggregated three hundred and twenty-eight. It is but fair to state that I visited probably one hundred or more small institutions where one or two and sometimes three persons were employed, but I have not included them in table No. 1 of this

report, wherein the reports of my investigations are set out in detail.

The results of the labors of the Bureau in this new work of factory inspection have amply justified the new departure, and I shall indicate to you the conditions which I discovered to exist, and shall urge upon you to recommend such legislation as these conditions demand for the protection of Iowa's laboring population in the matter of health, comfort and morals.

#### IOWA AS A MANUFACTURING STATE.

It is a widely prevalent opinion that Iowa is an agricultural state; that our citizens devote themselves almost entirely to the industries of the farm and garden. The notion, however, is very far from being true. The urban population of Iowa, as shown by the census of 1900, is 975,641, nearly one-half of the population of the state. There are sixty-four towns in Iowa possessing 2,000 or more inhabitants, and six with populations exceeding 25,000. In these towns and cities are to be found factories and manufacturing establishments to the number of at least 14,819, according to the enumeration of 1900, wherein there were 58,553 persons employed. There is a large number of factories in which 500 people are congregated and the largest establishment had 1,100 persons on its pay roll. The amount of capital represented in these factories aggregated \$102,733,103. The amount of wages paid in 1900 footed up to \$23,931,680. The value of the products turned out by Iowa factories last year reached the sum of \$164,617,877.

It is nothing less than astonishing that, with such a very considerable population devoted to manufacturing, Iowa is among the very few states without statutory regulations and inspection of the employment of men, women, and children within the factories of the state. While it is but fair to say that on the whole the conditions of industrial employment in Iowa are fairly satisfactory, nevertheless many of the conditions found in large numbers of factories are dangerous, to say the least, and intolerable in numerous instances. Out of 290 factories with two or more stories, which were visited, there were only twenty with fire escapes. The sanitary conditions prevailing in large numbers of factories were exceedingly dangerous to the health of the employe and to the community in which the factory was located. The arrangements respecting closets and urinals were generally defective in the extreme. With the exception of some of the

larger establishments, which I take pleasure in saying are generally to be commended for more considerate treatment of their workmen than the smaller factories, there are few if any adequate measures taken for protecting employes from dangerous machinery. Many of these conditions of which complaint is justly made have come about through developments in our industries that were not easily foreseen by parties responsible therefor, and not always, by any means, to their discredit. For example, a good mechanic years ago began the making of some useful article and because of its great merit the business of making it grew until it required a large establishment to manufacture it, but the owner or manufacturer from time to time added building to building, and employed more men, with the result that unsanitary conditions were imperceptibly produced, due to no conscious negligence of the owner of the premises. Notwithstanding, with the change of times and circumstances such a factory should be subject to state inspection to secure healthful conditions and protection for employes. It would seem to be right and proper that I give the names of owners or managers of factories where the conditions are unsafe or intolerable as is done by the inspectors in many states of the Union, but under our law as it is now it is not proper for me to expose by name and specification the factories visited by me. The Attorney-General's opinion follows:

#### STATE OF IOWA, OFFICE OF ATTORNEY GENERAL.

TO C. F. WENNERSTRUM,  
*Commissioner Bureau of Labor Statistics.*

SIR—You ask our opinion as to whether the information, obtained through inspection provided for in section 2472 of the Code, is such information as is deemed confidential, and the publication of the names of individuals, firms, or corporations is prohibited by section 2475 of the Code.

Our answer to this inquiry must be in the negative. In order to answer this question intelligently, it is necessary that we consider the entire chapter 8, relative to the creation and duties of the commissioner of labor statistics.

Section 2470 defines the duties of the commissioner, and specifies the kind and class of information which it is his duty to collect, assort, systematize, and present in his report to the governor.

Section 2474 provides that such information shall be furnished upon request of the commissioner.

Section 2471 vests the commissioner with power to secure such information, when not otherwise furnished, by the issuance of subpoenas, administering oaths and taking testimony of witnesses.

Section 2472 also furnishes another means of obtaining such information,

where the commissioner is unable to procure the same under section 2474 or 2471.

Neither of the last above mentioned sections provides for any other class of information to be obtained by the commissioner than that specified in section 2470. This last mentioned section enumerates and specifies all of the information which the commissioner is required to collect, assort, systematize, and present in his report.

Sections 2471, 2472, and 2474 only provide the means, or vests the commissioner with certain powers, by which he may obtain such information.

Section 2475 clearly prohibits the use of the names of individuals, firms, or corporations, in supplying information called for by sections 2470 and 2471.

It certainly could not have been the intent of the legislature to permit the use of confidential information obtained by the means provided in section 2472, and prohibit its use when obtained either under section 2474 or 2471.

The real purpose and intention of the legislature in prohibiting the use of information is because the same is in its nature deemed confidential. Such information is as much confidential information, when obtained under the power vested in the commissioner by section 2472, as it would be if obtained by either of the other methods.

We, therefore, are clearly of the opinion that no use should be made of names of individuals, firms, or corporations supplying the information obtained under the authority vested in the commissioner by section 2472.

Respectfully submitted this 22nd day of July, 1901.

CHAS. A. VAN VLECK,  
*Ass't. Att'y. Gen.*

#### THE NEED OF FACTORY INSPECTION.

It is not necessary for me to explain or argue for the need of adequate regulation and inspection of the conditions of labor and employment in factories. The people of Iowa have long pursued such a policy with respect to the mining industry, where energetic measures are taken to guard the workers underneath the ground from fire damp, defective shafts and poor ventilation. In a word, we strive to secure safety to the worker and such protection from adverse conditions as is possible for the state to secure for him. We have instituted a Board of Health, a Pharmacy Commission, a Dairy Commission, whose duties consist in the protection of the people from unsanitary conditions, from dangerous articles of commerce and from the transmission of disease through the sale of impure products. The legislation providing for such investigation and regulation is simply the exercise of the police power of the state government, resorted to for the common benefit of the general public. And it is with this in view that I urge upon your consideration the necessity

for more complete supervision of industrial establishments, to the end that the conditions of labor may be improved and men, women and children be protected from unhealthful and dangerous surroundings and the community guarded against diseases which the unsanitary conditions now prevailing may easily promote. In order that you may realize fully the serious nature of the evils resulting from lack of proper inspection of factories by the state, I shall set out briefly some of the more striking results of our investigations, the details of which will be found in table No. 1.

#### I.—SANITARY CONDITIONS.

The preservation of health is almost the first law of society; and sound bodies, steady hands and clear minds are the fundamental necessities of successful industry. The successes of the American mechanic and of the American employer of labor have been due primarily to the fact that his employes have been men with strong bodies and clear minds, whose energies and faculties have not been sapped or undermined by unhealthy or degrading conditions. It needs no argument to demonstrate to you that employes render better services in healthful workrooms, where ventilation, drainage, heat and light are satisfactorily provided, than they can do in crowded quarters, where a foul and overheated atmosphere depresses and deadens their energies and stupefies their faculties. Regarded simply from an economic point of view it is eminently wise to enforce strict regulations respecting the drainage and ventilation of workrooms and insist upon suitable provisions for the general health of employes.

##### (a) WATER-CLOSETS.

One of the most urgent needs in Iowa factories at the present time is the provision for suitable facilities in the way of water-closets and urinals. The Commissioner found in his investigation that nearly thirty-seven per cent. of the establishments visited were without decent closets or even places wherein men could properly attend to their physical needs. In one city which I visited two establishments where both sexes were employed had only one closet in each establishment, and in neither case were they provided with locks. In one (see Inspection No. 93 of table No. 1) forty women and twenty-three men were employed at the time of the inspection. In the other, ten men and five women. The proprietor of one of the establishments, when I complained

of the fact of only one closet, attempted to palliate the matter by claiming that his forces were like the various members of a family, and that there was not any sense or reason in the demand for separate places for the sexes. I asked him to at least provide a lock and hang the key in a conspicuous place away from the door of the closet, so the employes would know when the closet was occupied and not subject each other to intolerable embarrassment. On my second visit I found he had partially complied with my request and the conditions were improved. In another place a proprietor employing one hundred and ten men had an old shack provided for the men, which was intensely filthy, and when I reproached him for the condition of the place he replied that he had not seen it for a year and was completely surprised when I pointed out its condition to him. He immediately promised to renovate the premises and provide better facilities for his men. Another proprietor, employing fifty men, had closets that were not used by his men on account of their filth. The men told me that they suffered all sorts of distress and inconvenience rather than frequent the place. When I notified the proprietor of this condition of affairs he expressed surprise and promptly stated that he would keep the closets clean, and furthermore personally inspect them himself, and he gave as a reason that he could not afford to have his men distressed, because in that condition they could not render him a satisfactory service. I urge this circumstance as of noteworthy importance. Men cannot do their best work if their physical condition is not in full vigor.

The Secretary of the Iowa State Board of Health, Dr. J. F. Kennedy, has favored me with his opinion upon the matter under consideration, and I give below his letter in full:

IOWA STATE BOARD OF HEALTH.

SECRETARY,  
J. F. KENNEDY, M. D.

OFFICE OF THE SECRETARY.

DES MOINES, June 28, 1901.

C. F. WENNERSTRUM, *Commissioner Labor Statistics:*

DEAR SIR:—Replying to your communication received this morning I have to say an habitual neglect to promptly attend to the demand of nature in the way of the evacuation of the bladder and bowels is always dangerous to the health of the individual practicing such neglect.

Not only in such cases do the bowels whose beneficent demands are thus spurned cease in time to sound, as it were, the warning, and constipation occur as a result, but the retention of this worthless and poisonous matter

in the system results in more or less absorption of it and blood-poisoning is a result. It is not necessary to go into details as to the diseases and discomforts occasioned thereby. The truth is well known to all physicians and physiologists.

One of the reasons that lead many of the laboring classes to neglect such demands is the lack of proper opportunities in the way of outhouses and water-closets. When these conveniences exist they are often in such a filthy and uninviting a condition that a person will long hesitate before resorting to them.

With every factory, workshop, and storeroom; with every place in fact where people are employed; facilities for a prompt response to the demands of nature should not only be provided but these resorts should be as comfortable and inviting as possible. I am, very respectfully,

J. F. KENNEDY.

I need not dwell more at length upon the great urgency of the need of adequate legislation to the end that proper facilities shall be supplied to workingmen and workingwomen in our factories that will render impossible the conditions I have outlined as existing in so many industrial establishments of Iowa. It is neither pleasant nor satisfactory to set forth such a state of affairs, but I should be derelict in my duty if I did not expose these conditions and insist strenuously upon their abolition. In the majority of instances the unhealthy state of affairs is due to negligence and lack of foresight and not to deliberate disregard of the laws of health, nor to mere stinginess. Notwithstanding, it is necessary to exercise the power of the state to bring about and maintain a better condition of industries and employment in this state.

(b) HEATING AND VENTILATION.

Another important matter that has received but little or no consideration either in practice or in our legislation, is the heating and ventilating of our industrial establishments, where two or more workmen are employed. It is not necessary to set forth the arguments for proper heating and ventilating of manufacturing establishments. In our schools there have been great expenditures of time and money made with a view to securing pure air and sufficient heat for the protection of the lives of our thousands of boys and girls. If it is necessary to protect our boys and girls from impure air and the diseases and ailments consequent upon improperly heated or illy ventilated school-rooms, how much more important is it to provide for the protection of working men and working women on whose health and strength the welfare of whole families depends. In some lines of industry in Iowa, for instance in the overall and shirt manufactories, and

also in the shoe factories visited by me, I was pleased to find that considerable attention had been given to the matter of heating and ventilating the work-rooms, but notwithstanding in many of them there was decided need for improvement in these respects. In the wood-working establishment, on the other hand, such a favorable report cannot be made, so far as heating is concerned. The means for heating are usually very inadequate. Men suffer severely from cold, which could for the main part be prevented. It is but just to say that with respect to the wood-working establishments the dangers from fire are much greater, and in a number of those visited the cost of a proper heating plant would be a very serious matter for the owners. Nevertheless I am strongly of the opinion that measures should be taken to do away with the ordinary stove method of heating such establishments, as it affords but little heat to men working at any distance, and it is also a constant source of danger. In dozens of shops where the men devoted themselves to iron work I found no provision whatever for heating, the men depending entirely upon heat that came from forges or furnaces. To any one that is familiar with the discomforts that are present in a large room in the winter time from lack of heat, I need say nothing more. Such buildings can be heated without inconvenience or material cost, and there should be a law compelling the factory owners to provide sufficient heat to prevent discomfort to their workmen. Our code contains peremptory statutes requiring street-car companies to provide stoves and fires in their street-cars to insure not only their patrons but their employes from the discomforts of cold weather; and we also require street-car companies to guard their motormen against bitter cold winds by means of vestibule platforms. The reasons for such legislation are just as urgent in the case of workmen in our factories.

The shoe, cigar, pant and shirt factories, as a rule, are much better ventilated than any other classes of establishments. The better ventilation in cigar factories is probably due to the organized unions that have paid particular attention to this matter on account of the danger from inhaling the fumes of tobacco in crowded quarters. I found the worst samples of ventilation in iron factories and in parts of establishments where there is work in iron under way. In these establishments the evil is very marked on account of the smoke nuisance. If the factories are not provided with ample facilities for carrying off the large volume of smoke from the furnaces, the suffering or annoyances of

the men are very pronounced. There should be specific requirements providing for cupolas for the removal of smoke in all factories where forges are employed or where iron moulding is done. In one city I found a very bad state of affairs in a foundry where the smoke settled about the shop and caused constant discomfort. I called the attention of the proprietor to the bad state of things, and he promptly complied with my request and built several cupolas, which remedied the conditions very materially.

With respect to ventilation in general, it should be made compulsory that all industrial establishments provide for their employes the minimum allowance of fresh air in order to insure health. Most of the older eastern states require a certain number of cubic feet per person: New York and Wisconsin require that each person employed must be allowed 250 cubic feet between the hours of 6 A. M. and 6 P. M., and in the latter state, that between 6 P. M. and 6 A. M. 400 cubic feet be allowed to each person.

It should also be the aim of any legislation enacted to guarantee better conditions of ventilation to secure sufficient currents of pure air in working establishments without subjecting the workpeople to drafts from windows or doors. Fans and window-guards, and other modern devices, can be provided with comparatively little cost, that will insure such results, and the benefits will be incalculable.

## 2—FIRE-ESCAPES.

The various investigations made by the Bureau develop another fact of great importance with respect to the facilities provided for workmen in case of fire to escape from their work-rooms and factories. Out of the number of factories inspected 290 had two or more stories, and in this number I found but twenty that pretended to afford fire-escapes. Our Code, in Secs. 712 and 876, gives cities authority and power to regulate the provisions for escape from fires, but the experience and observation of the Bureau has been that cities do not exercise this authority as fully and effectually as a due regard for the lives and safety of our working population requires. Speaking of the entire state the conditions in this respect are very unsatisfactory. Local authorities have been almost criminally negligent with respect to factories. Hotels and wholesale houses are, as a rule very well provided with fire-escapes, but the factories, as indicated above, have no provisions whatever. Should fire break out in stairways or other exits, men and women

would be compelled to jump from second, third, and fourth stories at the imminent risk of life and limb. Many a factory has its doors opening in, which would prevent exit on a sudden alarm in case there should be a jam at the door. In some instances I found gates at the exits; one at the end of a stairway, opening in at the head of the stairs. In some cases where workmen would be compelled to jump from windows they would encounter a network of telephone wires in the alley.

This condition of affairs all must admit is wholly indefensible, and it is high time that stringent legislation was enacted giving authority to a state official to insist upon better facilities for the escape of working people from factories. We ought not to delay in this matter until a holocaust horrifies the state. The city authorities, as I have intimated, do not exercise the authority which they have as thoroughly as they should, nor have they gone to an extent that it seems to me they should go in requiring fire-escapes in public buildings, or in buildings where large numbers of people congregate as in factories. For instance, the city of Des Moines, by its ordinance No. 1056, requires construction of fire-escapes and standpipes for buildings exceeding two stories only. It seems to me that fire-escapes should be provided for buildings of two or more stories, particularly where women are employed. No woman and few men can jump from a second story ten or twelve feet without great risk of breaking limbs.

### 3—DANGEROUS MACHINERY.

Of no less consequence to human life and the well being of the employes in our factories is the safe guarding of men and women from dangerous machinery. Aside from the statutory provisions governing the inspection of mines, Iowa has never enacted any legislation covering this subject, and without any exaggeration there is urgent need of such legislation.

#### (a). Elevator Guards.

In the last two years there have occurred numerous fatal accidents in elevator-shafts that have come to our knowledge, and it would seem that there is an imperative need for regular and systematic inspection of elevators for the safety not only of the traveling public but of those employed thereon and in connection therewith. In most of our large factories having two or more stories, elevators are used for carrying freight and for the transportation of employes. In one instance in a large estab-

lishment the elevator was on the outside of the building; there were no guards placed about it. The lift was made for three stories, and the proprietor was wholly indifferent about keeping the doors leading to the elevator shut; and when I spoke to him about the dangerous condition of the elevator he simply laughed, and refused to take any precautions. This sort of thing should be prohibited, and the only effective way to bring about the desired reform in this matter is legislation that will give authority to the inspector to compel employers of labor to put automatic gates upon the elevator and provide other necessary safety appliances.

#### (b). Set screws, Gearing, and Drive belts.

In one of the largest cities in the state within the past two years there have occurred two deaths in one establishment due to protruding set screws on revolving shafts. I have learned of numerous instances where men's clothes have been torn from their bodies, and while they were not seriously injured the danger was very great. In another case a man was very seriously injured. The persons who were killed were mangled in a horrible manner. This danger is legislated against in a number of our states, and I strongly urge that you recommend some such legislation in Iowa. It should be made compulsory for manufacturers to countersink all set screws or to use flange collars on shafts.

What has just been said about set screws is equally applicable to unboxed drive belts and gearing. The dangers that are present constantly to those working about machinery where the belts and gearing are unguarded are simply dreadful in their possibilities. The gearing, regardless of location, should be provided with hoods, and every belt should be boxed wherever there is any danger probable. The dangers resulting from disregard of such protective measures are too well known for me to dwell more at length upon them. Not only should legislation provide for such safeguards as have been just outlined, but there should also be required loose pulleys and detaching appliances for throwing out of gear and stopping any machine in an establishment, so that in case of an accident and a workman is involved it would not be necessary to stop an engine and the entire machinery of the establishment before the man that is caught could be extricated.

#### (c). Emery wheels and Grind stones.

In the investigations of the past two years we have learned

of numbers of serious accidents resulting from the use of emery wheels, and the number of victims from this class of machinery is constantly increasing. We heard of numbers of accidents which caused the loss of eyes, and resulted in the inability of the men to carry on their work. As is well known, emery wheels are among the most dangerous, if not the most dangerous, of all machinery. It is very difficult to make them sufficiently strong and correct as to adjustment, and if they are not both strong and running true, the liability to accident is very great. It seems to me that there can be no question about the desirability of compelling manufacturers to equip all emery wheels with the latest safety appliances in order to obviate the dangers to workmen employed in or about them. Every wheel should be thoroughly tested by a competent inspector as to its character and as to the manner in which it has been set up.

In addition to such inspection the manufacturer should be required to provide dust collectors for all emery wheels. When ever used there comes from emery wheels a strong stream of sparks that produce a gaseous dust that is very injurious to the lungs. Furthermore, very frequently splinters and particles fly from the wheels that injure eyes and faces. There are appliances in the way of hoods that will protect workmen almost completely from the annoyance of dust and the dangers from splinters, and these appliances are not costly. There is another consideration that should not be forgotten: the hoods that should be placed over emery wheels act as safeguards against fire and the general contamination of the atmosphere of the workroom.

What has been said in the preceeding applies with equal force to factory grind stones.

(d) Boilers.

Connected immediately with the matter of protection of workmen from dangerous machinery with which they come in daily contact in the course of work is need for the inspection of boilers. The only protection which now exists in this state for the protection of employes is the occasional insurance of boilers by provident manufacturers. An effort was made to ascertain the number of boilers insured, but many difficulties were thrown in the way of successful investigation of this subject. It is my impression, however, that fully one-half of the boilers in our factories are insured. At least this is true of the factories which the Bureau inspected. A considerable number however,

at least one-fourth if not more, do not take any particular precautions in the way of insurance to provide against explosions. The need for thorough and systematic inspection of boilers is so obvious that it is strange indeed that there has been no legislation regarding this matter. I do not urge you to recommend the enactment of a law providing for a state inspector of boilers, for the reason that I believe adequate protection can be afforded in the passage of a law, requiring all manufacturers to insure their boilers against explosion. The mere fact of insurance will of itself secure thoroughgoing inspection by the representatives of insuring companies.

Supplementing the foregoing, I suggest the propriety of requiring a thorough examination of engineers in charge of all stationary engines. There has been little regard paid to such matters by employers of labor, for the reason that it is generally assumed it is of little or no importance. But the state should compel a more careful preparation on the part of those who expect to run stationary engines, just as our railroad companies do with their prospective engineers, and which the state has for some years required of engineers in charge of hoisting engines at our mines. The same elements of danger exist in and about stationary engines that are so apparent in the case of hoisting engines.

PROTECTION OF RAILWAY EMPLOYES.

While not exactly a part of the work of factory inspection, nevertheless in a measure connected with the general protection of employes is the matter of protecting railway employes from the dangers of running light engines backward without rear light at night or rear pilot at all times. Various complaints have come to the Bureau during the past two years protesting against this practice. Other complaints were made against the practice of running trains with double headers, viz: with two engines. I have been unable to make an extensive investigation of these matters, but I feel that there is some justice in the complaints, and that there should be serious consideration given them. No engine should be run at night, especially in urban districts, without headlights, rear lights, and proper guards. The practice of running double headers, it is claimed by railroad men, is very dangerous for the reason that the crew in charge of the second engine has no control whatever over the conduct of the train.

## FACTORY INSPECTION LESSENS DAMAGE SUITS.

Objection will be made, doubtless, to legislation such as has been suggested on the ground of cost and interference with private rights and investments. While the objection is not, in my opinion, valid—nor would it be sustained in our courts, it may be well to suggest that there is a sufficient pecuniary inducement for such legislation as is here urged. Every accident in a factory involves probable damage suits, which mean, even if unsuccessful, considerable outlays in attorneys' fees and time wasted, and if successful serious loss in the payment of jury awards. Statutes that enforce the protection of workmen from dangerous machinery are obviously a protection to employers as well as to employees. The freedom from accident which they insure reduces the liability of employers. The state of Iowa has placed no statutory limits as is the case in New York and Illinois upon the amount of damages that may be recovered for the loss of life.

Another fact worthy of our consideration is the loss which the state and society sustain in the death of a workman or in his inability to continue work, due to serious accident through the employer's failure to protect him. Society should not hesitate to enact suitable legislation to prevent injuries or loss of life to men whose existence is the source of our wealth and industrial strength.

Both of the foregoing are substantial economic reasons for enacting the legislation which I have advocated.

## 4—CHILD LABOR.

Another matter which forced itself upon my attention in the course of the investigation of factories was the employment of children in a large number of our industrial establishments. It seems strange that a progressive state like Iowa should not be among the more advanced commonwealths of the Union in the matter of protecting children from too early employment in the industrial pursuits. There were voluntarily reported to me by employers 403 employees that were under 14 years of age, and subsequent inquiry developed the fact that there were 604 children employed. This number I am sure is very much below the actual number, for the reason that when I made my inquiries I found that employers were averse to affording me much information, and the children themselves whom I asked seemed to be fearful of consequences in giving me the information I

sought, even when I assured them that there was no law at present prohibiting their employment. In one instance an employer, aware before my arrival of my purpose to inquire concerning the employment of children in his city, sent home all in his factory under 14 years of age. I learned of this fact through one of the children that had been dismissed for the day.

The United States Census in 1890 reported 1644 children under sixteen years of age as employed in factories in Iowa and the enumeration of last year returned the number at 1888. These figures confirm my own investigations. For the reasons given above I am strongly of the opinion that the returns are very much below the actual number so employed.

Many of these children were as young as 10 years. In many cases the children were employed at tasks that involved hard and laborious work. They were employed for the same number of hours as mature men, and were given no privileges or special exemptions from work. I took special pains to observe the physical condition of the children that I found working in the factories, and they impressed me by their wan and over-worked condition. In many instances they were in a run-down condition and seriously weakened. In almost every instance the employers of these children, when I first approached them with my inquiries, indicated very markedly their own sense of wrong done the children by such early employment in the fact that they were under the impression that they were violating a state law.

The results of the negligence of the state in permitting young boys and young girls to enter industrial pursuits at an immature age, when they should be at school or on the playground, are very serious. Early employment stunts the physical growth, prevents mental growth and tends to hamper the moral development which proper schooling is calculated to promote. I found in a number of cases that the children had never attended school; that some had attended but a short time and had but little knowledge of books or ability to use books.

In urging you to recommend legislation against the employment of children I am not advocating a measure that is unknown to our statutes. For some years the state of Iowa has prohibited the employment of boys under 12 years in our mines, and there are equally strong reasons for the prohibition of the employment of children under that age in factories. I urge that you recommend that the age-limit in this state be 14 years instead of 12 for

both mines and factories. I believe that this age-limit is required on account of obvious physical reasons. Thirteen states of the Union have fixed upon 14 years as a limit. They are Colorado, Kentucky, Illinois, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, Ohio, Tennessee, and Wisconsin. The province of Ontario has done the same thing. Four states place the limit at 12, as in the case with children in mines in Iowa, viz: California, Maine, Maryland, and West Virginia. New Hampshire has the lowest limit of all—10 years. Rhode Island has a variable limit of from 12 to 15 years. The average work age of these twenty states is 13.45.

It seems to me that Iowa should not be backward longer in this important matter of prohibiting the employment of children under 14 years of age in factories as well as in mines. We cannot afford to allow such employment to continue for humanitarian reasons if for no other. I do not advocate a sweeping and absolute law that would deny the right to work to a stout boy of 12 or 13 years of age in case he is the sole support of a widowed mother or orphaned brothers or sisters of young age. Wisconsin and other states exempt children from the provisions of the child-labor law in such cases, but aside from this exemption we owe it to ourselves as a state to remedy this deficiency in our laws as soon as possible.

## II.

### STATISTICS OF STRIKES.

One of the most important undertakings of the Bureau in the past two years was the investigation of strikes that have taken place in Iowa in the past six years. Previous reports of this Bureau have given some information on this subject, but it is rather meager. The National Department of Labor at Washington, in its tenth annual report, gave an exhaustive report of strikes and lockouts that had occurred in Iowa prior to June 30, 1894. The Bureau undertook to secure and compile the statistics from June 30, 1894, up to and including December 31, 1900. Our work was very materially aided by the presence during the greater part of the investigation of the special agent of the United States Bureau of Labor, Mr. Adelbert M. Dewey, who was making a similar investigation at the same time. The Bureau availed itself of his

information and helpful suggestions, and our work was conducted and the results tabulated upon the same lines and with the use of the same schedules as employed by the department at Washington. In fact in many instances we were favored with information respecting certain strikes and lockouts that was acquired by the department at Washington prior to our undertaking the work. Indeed this was simply one of the many acts of kindly assistance which the Bureau has received from Commissioner Carroll D. Wright and his assistants at Washington. All of the data in our investigation of strikes was carefully scrutinized. Where the reports of employers and employes agreed no subsequent investigation was made as to the reliability of the reports. In cases however where the reports differed as to important facts we verified our findings in every particular.

The results of our investigation show that in the six years and a half covered in our reports there occurred 831 strikes. By a strike is meant the cessation of work even for one day by one man in an establishment, but the term strike includes all the establishments affected by a strike order; for example a strike is ordered in the mining districts, and fifty mines are involved. In this investigation we consider the stoppage of work of the mines only as one strike and not fifty different strikes.

The strikes reported occurred in thirty-four counties of the state. The names of the counties, and the number of strikes in each county, were as follows:

Allamakee.....	2	Lucas.....	2
Appanoose.....	181	Mahaska.....	19
Blackhawk.....	3	Marion.....	4
Boone.....	8	Marshall.....	1
Cedar.....	1	Monroe.....	19
Chickasaw.....	1	Montgomery.....	2
Clayton.....	1	Muscatine.....	13
Clinton.....	1	Palo Alto.....	1
Crawford.....	1	Polk.....	131
Des Moines.....	7	Pottawattamie.....	6
Dubuque.....	14	Poweshiek.....	1
Emmett.....	1	Scott.....	44
Fayette.....	1	Taylor.....	3
Jasper.....	2	Wapello.....	32
Keokuk.....	8	Wayne.....	1
Lee.....	1	Webster.....	25
Linn.....	13	Woodbury.....	17

The number of employes going out on strikes aggregated 32,930. The total number of days establishments were closed

amounted to 4006. The loss in wages aggregated \$1,440,679; the loss to employers in the same period amounted to \$548,185; the number of establishments involved in strikes for the period under consideration aggregated 831; the number closed amounted to 669. Out of the 381 strikes undertaken, there were successful those in 211 establishments, and partly successful those in 82 establishments; and they failed entirely in 315 establishments; showing 608 separate settlements or conclusions.

The returns show that out of 296 strikes involving 694 establishments ordered by labor organizations, they were successful in 237, were partly successful in 87, and failed in 370 establishments. It is also shown that out of 85 strikes that were undertaken without being ordered by labor organizations involving 137 establishments, they were successful in 76 and failed in 61 establishments. I give below:

AN EXHIBIT SHOWING THE RESULTS OF THE UNION AND NON-UNION STRIKE.

YEAR	Number ordered by labor unions.	Number establishments affected.	Successful.	Partly successful.	Failed	Number not ordered by labor unions.	Number establishments affected.	Successful.	Failed
1894	43	43	30	.....	13	2	2	1	1
1895	14	248	24	60	164	16	17	4	13
1896	47	47	29	.....	18	6	6	.....	6
1897	114	114	51	14	49	4	4	3	1
1898	28	28	17	1	10	7	7	3	4
1899	26	70	30	9	25	23	23	52	21
1900	24	144	50	3	91	27	28	13	15
Total	296	694	237	87	370	85	137	76	61

The apparent discrepancy between the number of strikes ordered and the number of strikes which were disposed of, either by settlement or failure, arises from the fact that the 381 strikes involved 831 establishments, in which the strikes might be settled by separate negotiations for each one or for a group of establishments; hence the number of strikes disposed of aggregates nearly double the number of strikes ordered, viz.: 608.

The summary of strikes by industries is of special interest. The large majority, or 633 out of 831 strikes, took place in the coal-mining districts. The next largest number, viz., 39, took place in the building trades. Thirty-four strikes occurred among cigarmakers. Thirty-two were resorted to in the plumbing and heating trades.

Taking the six years, more strikes occurred in 1895 than in any other year—265 as against 172 in 1900, the year of the next

largest number of strikes. The smallest number of strikes occurred in 1898, only thirty-five being ordered. The next smallest number took place in 1896, viz.: 53. The strikes in the mining industries occurred as follows: In 1895, 251; in 1896, 45; in 1897, 112; in 1898, 25; in 1899, 84; in 1900, 74. The year 1900 seems to have been the critical time in building trades. The reports show that thirty-seven strikes took place last year, as against two strikes in the preceding three years and a half. No strikes took place in the building and plumbing trades from July, 1894, until 1899, when nineteen occurred, and in 1900 thirteen strikes took place.

In general, it may be said that Iowa has not been disturbed by industrial warfare to such a serious degree as many of our sister states, owing in the main to the conciliatory attitude taken by both employes and employers, and to the fact that we do not have such a large urban population and extensive manufacturing interests as we find in some eastern states.

### III.

#### STATISTICS OF LABOR ORGANIZATIONS.

The Bureau has made an investigation of the development of Trades Unions in the state of Iowa, which is shown in detail in the tables. The reports show, besides the locality and name of the unions, the year of organization, the number of members, the maximum of working hours per day of the membership, the minimum rate of wages, the time unit for payment, and the daily wages of the most skilled in each union. There is also shown whether the union demand the employment of union men only in the localities and industries in which they are organized. Finally there is shown the total number in the locality working at the trade in which the union is organized.

It appears from the record that the first organization of labor took place in Dubuque in 1858 when a typographical union was formed. The locomotive engineers established their order first in 1869, the locomotive firemen in 1875. The cigarmakers did not organize until 1881. In 1890 there were 173 unions in the state. We have been unable, however, to obtain the number of their membership. Between 1890 and 1897 only thirty-nine new unions were added, but since the later date the increase in labor unions has been very marked. During the four years since 1897,

184 unions have been organized. The Bureau learned of 396 unions. Eleven of this number refused to report their membership or give us any information concerning their history and work. The tables do not include forty-two Threshermen's unions, as to which we could secure no information whatever. However, I believe they are not legitimate labor unions. The total membership of the 385 unions reporting their membership aggregated 26,068 in 1900. These various unions report forty-eight different crafts or lines of industries, and are found in eighty-eight different localities.

The summaries by counties show some interesting figures, as to the strength of labor unions in various localities. Polk county leads all others in the number of unions and in total membership, there being fifty-eight unions and 4,855 members in 1900. Woodbury county comes next in the number of unions, with twenty-nine, but with only a membership of 1,372; whereas Appanoose county, with but twenty unions, shows union membership to the number of 2,285. The following counties have fifteen or more labor unions, viz: Boone, seventeen; Clinton, fifteen; Des Moines, eighteen; Dubuque, nineteen; Lee, eighteen; Linn, twenty-seven; Mahaska, nineteen; Wapello, twenty-eight. The union labor population of these counties, however, varies very markedly. Boone has 1,568, Clinton, 1,015; Des Moines, 825, Dubuque, 579; Lee, 497; Linn, 1,143; Mahaska, 1,688; Wapello, 1,793.

One important result of the investigation is shown in the table, in the column under wages, where the minimum rate of wages and the wages of those more highly skilled are given. The returns show that the wages of the most proficient workmen in organized trades exceed the minimum wage rate on an average of about 33 per cent.

#### IV.

##### STATISTICS OF MANUFACTURERS.

The Bureau undertook to compile the statistics of the manufacturing industries of Iowa for the year 1900, but in the course of our investigations I learned that we were paralleling a similar investigation, then under way, under the direction of the United States Census Office, covering the same year 1900. As our means and facilities for prosecuting such an investigation were, compared

with those at the command of the Washington authorities very limited, and as Colonel S. N. D. North, Chief of the Division of Manufacturers of the National Census, very courteously granted this Bureau permission to utilize the results of the investigations, I have therefore, incorporated their compilations in the accompanying report. The extent of my obligations to Colonel North may be appreciated when I state that he took up the statistics of Iowa Manufacturers ahead of their regular order in order to get them ready for use in this report and he sent the original tables on to me for use here.

The census shows that in 1899, there were in Iowa 14,819 establishments with a total capital of \$102,733,103, which took the form of land, \$11,701,330; of buildings, \$18,554,185; of machinery, tools and implements, \$26,150,011; of cash and sundries, \$46,327,557. The number of proprietors and firm members owning or operating these establishments aggregated 16,619 persons. The number of salaried officials, clerks and the like, amounted to 5,654, whose aggregate salaries reached the sum of \$4,486,117. The total number of persons employed and receiving wages amounted to 58,553. The total wages paid these work people reached the sum of \$23,931,680. Of these wage earners, 48,417 were men of sixteen years of age and over, whose wages amounted to \$21,893,983; 8,248 were women of sixteen years and over, who received wages to the amount of \$1,766,586; and 1,888 were children under sixteen years of age, who were paid \$271,111. The returns show that the operating expenses of these establishments, not including the cost of materials used in manufactures, were \$1,166,867, in rent for works; \$547,634, for taxes; \$5,592,216, for rent of offices, interest, etc.; \$682,037 for contract work, all of which totals \$7,988,767. The cost of materials used aggregated \$101,170,357, of which, \$2,258,923 was expended for fuel and rent of power and heat, and \$98,911,434 was expended for principal materials, including mill supplies and freight.

The total value of the products turned out by Iowa factories in 1899, as a result of the foregoing outlays of capital and labor, amounted to \$164,617,877.

The past ten years have been marked by a very decided increase in the number of manufacturing establishments in Iowa, increasing from 7,440 in 1890 to 14,819, an increase of 99.2 per cent. The capital invested has increased from \$77,513,997 to \$102,733,103, an increase of 32.5 per cent. The wage earners have increased from 51,037 to 58,552 in the ten years, or 14 per cent.

Of this number the men have increased from 44,210 to 48,417 or 9.5 per cent; the women have increased from 5,183 to 8,248, or 59.1 per cent, and the children under sixteen years of age increased from 1,644 to 1,888, or 14.8 per cent.

The ten leading industries in which Iowa capital is employed shown in the tables, are carriage and wagon factories, cheese, butter and milk concerns, brick, tile and pottery plants, flouring mills, food factories, foundries and machine shops, lumber and planing mill establishments, and printing and publishing, slaughtering and packing houses. The capital employed, the wages paid and the number of people employed, the operating expenses, the cost of materials, and the value of the products turned out by these several establishments are shown in detail in the summaries.

The industry in which the most capital is invested comprises the lumber and planing mill factories; the amount employed in the manufacture of lumber and timber products aggregated \$8,762,219, and in the planing mills, wherein sashes, doors and blinds are produced, there are \$3,576,305 additional capital invested. The industry coming next to the lumber industry in the amount of capital employed, is the milling industry, for the production of flour, total capital amounting to \$6,421,078. Printing and publishing come next, with an aggregate capitalization of \$5,679,390. The industry which employs the next largest amount of capital is that devoted to the manufacture of carriages and wagons, in which there was \$4,087,400 employed. The brick, tile and pottery industry absorbed \$3,437,613, and the capital employed in the manufacture of cheese, butter and condensed milk, required 3,459,017. The capital invested in foundries and machine shops totaled \$3,732,774. The industry devoted to the preparation of foods represented a capital of \$2,501,521.

In nearly all of the industries there have been increases in the amount of capital employed and in the value of the manufactured products. There has been one notable exception, however, the capital employed in the factories devoted to lumber and timber decreased from \$17,530,355 in 1890 to \$8,762,219 in 1900, the value of the product decreasing from \$12,056,312 in 1890 to \$8,677,058 in 1900.

The most marked increase in any of the industries took place in the establishments devoted to the manufacture of food preparations. While the number only increased from eight to sixteen in the last decade the capital employed increased nearly five

times from \$579,866 to \$2,501,521; the wage-earners employed, from 147 to 609; the wages paid, \$56,364 to \$209,031; and the value of the product manufactured, from \$900,811 to 3,604,031.

Those interested in the manufacturing in the various localities in the state will find table No. 2 of great interest, wherein are shown all of the above information for each of the ninety-nine counties of the state. Following the exhibits for the counties will be found the same information for the leading industrial towns of the state, numbering forty in all; the concluding tables show the comparative growth of manufactures in the eight largest cities in Iowa, from 1890 to 1900, viz.: For Burlington, Cedar Rapids, Clinton, Council Bluffs, Davenport, Des Moines, Dubuque and Sioux City.

## V.

### LOCATION OF NEW INDUSTRIES.

One of the duties of the Bureau of Labor Statistics is the collection of information relative to localities "offering natural or acquired advantages for the profitable location and operation of different branches of industries," and the Commissioner is also required "by correspondence with interested parties in other parts of the United States impart to them such information as may tend to induce location of mechanical and producing plants within the state, together with such other information as shall tend to increase the productions and consequent employment of producers." (Sec. 2470 of the Code). In pursuance of the directions of the Code I had prepared two thousand circular letters and sent them to representative men in the state including members of the legislature, mayors of cities, and all newspapers, and the results of our correspondence are given in detail in the report.

The replies received indicate a large and active demand for new industries in nearly all of our Iowa towns, and cities and they evince a disposition on the part of the citizens to co-operate in securing additions to their local industries. The experience of the Bureau, however, convinces me that there is a great need for an appropriation that will enable the Commissioner to place advertisements in the trade journals in various sections of the country. We were unable to hit upon a practicable plan for entering into correspondence with parties in other states that were on the look out for profitable investments in manufacturing lines.

It is useless to attempt to reach investors unless we do so through trade journals. The department might be able to do something if it had funds to subscribe for Eastern trade journals, but I am convinced that the only feasible plan is to place advertisements in leading trade and industrial journals, and I therefore urge that you recommend to the legislature an appropriation to be expended by the Commissioner of Labor, as suggested, by and with the consent of the Executive Council. I am certain that with such action on the part of the legislature the provisions of the Code can be rendered effective. If there is no such provision made it is useless to attempt to carry out that requirement of the statute.

### SPECIAL INDUSTRIES.

I investigated three special industries, viz: Sugar beet culture, the gypsum industry and the preparation of flax for upholstering purposes. In the first of these industries I had to obtain my information from outside the state. In case of the second I used the report of the geological survey and verified same by personal investigations. The third industry is comparatively new, and I use as much of the information as can be done without divulging the private affairs of those engaged in the business, which disclosure would be contrary to law, and would defeat further statistical inquiries.

#### SUGAR BEET CULTURE.

The growing of sugar beets in Iowa has assumed considerable proportions in later years. In 1900 there was grown and shipped from Iowa to Nebraska and Minnesota sugar factories 5687 tons of beets, whose total value is given as \$20,068.00, distributed as follows: Buena Vista county 325 tons; Cerro Gordo county 1,098 tons; Hamilton county 1,393 tons; Hardin county 485 tons; Marion county 675 tons; Webster county 597 tons; Jasper and Franklin counties together 225 tons, at an average price of \$3.50 per ton at shipping station; total value of which is given as \$17,143.00. Harrison county with a contract acreage of 76 acres shipped 783.35 tons (10.31 tons to the acre) at an average price of \$3.67 per ton, valued at \$2,875.00. I will not undertake here to express an opinion on the desirability of sugar beets as a farm crop, either as to its effect on land or its furnishing a greater or less return on the investment.

This information comes directly from the Standard Beet Sugar Company of Leavitt, Nebraska, and from the Minnesota Sugar Company of St. Louis Park, Minnesota, and is correct as taken from their books, and is vouched for by these concerns. The Minnesota Sugar Company was unable to give us the total acreage, because the acreage contracted for was not fully delivered. But enough has been given to show that beet culture is on the increase to say nothing of the beets grown for feeding purposes, of which we have no record.

#### THE GYPSUM INDUSTRY.

Concerning this important industry we quote from IOWA GEOLOGICAL SURVEY for 1901, Vol. XI, pp. 39, 40, 42, 51 and 52. The report says:

"1899 value of production (estimated) \$600,000.00 (with 6 producers). 1900 value of production \$393,750.00 (with 7 producers)." A decrease in production of \$206,250.00 and an increase of one producer during year.

Report says of 1900:

"The Gypsum market was not quite so brisk as during the preceding year. Most of the mills were able to fill their orders by running a single shift, while during 1899 double shifts were quite the rule."

Under head of "miscellaneous" we find credited to "Webster county \$393,750.00" which is known to be the gypsum output for the year 1900.

Again, "The gypsum trade continued brisk during 1900 but double shifts at the mills were not found to be necessary to fill orders as during the preceding year. Early in the season, owing to the installation of new plants, stucco sold as low as \$5.00 per ton on board the cars at Ft. Dodge and Carbon Station. The average price for the year would be considerable higher, perhaps \$5.25 per ton would be a conservative figure. The output for 1900 would exceed 75,000 tons."

Which latter statement we have verified by personal inquiries.

#### UPHOLSTERING TOW.

There are five mills preparing flax for the market, viz: At McIntire, Elma, Cresco, New Hampton and Meltonville.

The five mills employ altogether forty-six men, and the value of the product of four of them is given as \$47,750 for 1900.

They paid in wages during that period \$10,536, but were

unable to give the average wages for each person, owing to the fact that but two of them are reported as employing help during the whole year.

Two of the mills whose collective output is given as \$14,850, used the product from 995 acres of land and shipped ninety car loads of tow. From the other three mills we were unable to obtain similar information.

Value of raw material used by four of these mills is given as \$17,200.

Capital invested in four of them is reported as \$25,000.

This industry is comparatively new in Iowa, the tow being generally considered a by product, and the seed the real product, which, now added to the tow product, makes a good return, and were it not that flax is reported hard on the soil its growing would become more general.

The tow product alone for two mills average in value \$5.43 per acre at the mills.

#### ABOLITION OF STATUTORY BLANK URGED.

Our experience during the past two years leads us strongly to urge the abolition of the statutory blank provided for in section 2474 of the Code, for reporting statistics. There is a number of objections to the blank: First, it applies only to persons or corporations employing five or more people. The returns under the blank consequently afford us only partial information as to manufacturing establishments of the state. The second objection is, it includes many establishments not factories and industrial establishments proper; as, for example, hotels and restaurants, that may employ five or more people; third, there is a general objection to limiting the Bureau by a prescribed and unchangeable blank. No other departments of labor, so far as our knowledge goes, are so restricted. The heads of such bureaus are given general directions in the statutes as to the kind of information desired, and are allowed a wide discretion in the preparation of the blank forms for acquiring information, and such discretion should be given the one in charge of the Bureau in this state. I deem it very important, and ask that you urge this matter upon the legislature.

#### NEED OF INCREASED APPROPRIATION FOR BUREAU.

The great amount of work that properly comes within the duties of the Bureau justifies me in asking you to recommend an allowance for clerical assistance. The work of the office, if properly done, demands the entire time of the chief and his deputy, and we have been hampered not a little during the past period by the lack of a stenographer who could have relieved us of a vast amount of mere clerical work that we have been compelled to do, as I believe, to the detriment of our regular and proper work. The other departments are given an allowance for stenographers, and a similar privilege should be extended to this Bureau. Another embarrassment to which this Bureau has been subjected has been the operation of the code provision relating to the appropriation for traveling expenses. By the ruling of the Attorney-general, the annual appropriation began October 1st, dating from the time the code took effect in 1897, and if all our appropriation is not used within the year the unexpended balance is covered back into the state treasury. Now, it frequently happens that the work of the Bureau is such that it is not desirable or economical, in the first year of the commissioner's term, to use the entire appropriation within the annual period. Under the practice of the Auditor's office the unexpended balance is cut off from the Bureau. This is not as it should be, and I hope you will urge upon the legislature an amendment of the existing provision so as to give the department entire control of the fund for traveling expenses during the entire biennial period, subject, of course, to the consent of the Executive Council, as is the case at present. With the law amended as suggested the Bureau can make its investigations at more convenient times and under conditions that are more satisfactory.

It is not improper for me to direct your attention to the need of increasing the scope and effectiveness of the work of this Bureau. Iowa has not, up to the present time, granted generous appropriations for the carrying on of statistical inquiries and compilations of industrial statistics. The result is that this Bureau has not been able to do the work on as extensive a scale as desired. Many states of the Union appropriate considerable sums for the maintenance of the bureaus of labor statistics, and

these bureaus have done splendid work in many directions in securing for the public extensive and accurate information classified and summarized for general dissemination. It is not agreeable to record the fact that Iowa is practically at the bottom of the list in proportionate expenditures for bureaus of labor. Upon the basis of *per capita* outlay, Iowa spends the smallest amount of all the states.

Below is given a table in which is presented the amount *per capita* expense per thousand of population for 1900. This table is not only interesting but instructive, and it seems to me it affords a stronger argument for increased appropriations for enlarging the work of the Bureau than anything I can say on the subject. A table is also given in the Report showing the scope and the appropriations in each state where there are Bureaus of Labor Statistics.

ANNUAL EXPENSE FOR BUREAU'S OF LABOR STATISTICS  
PER THOUSAND OF POPULATION.

STATES. (Having bureaus.)	POPULATION (Census of 1900)	Annual ex- pense per thousand of population.
a California.....	1,485,653	\$ 5.74
b Colorado.....	539,700	4.07
c Connecticut.....	908,480	33.11
d Illinois.....	4,821,550	0.46
e Indiana.....	2,516,462	3.08
f Iowa.....	2,231,853	1.68
g Kansas.....	1,470,495	4.42
h Kentucky.....	2,147,174	0.52
i Louisiana.....	1,381,625	2.53
j Maine.....	694,466	5.00
k Maryland.....	1,100,050	4.20
l Massachusetts.....	2,805,346	9.44
m Michigan.....	2,420,982	12.18
n Minnesota.....	1,751,794	6.06
o Missouri.....	3,106,665	8.69
p Montana.....	243,380	26.75
q Nebraska.....	1,086,530	4.39
r New Hampshire.....	411,588	8.00
s New Jersey.....	1,885,369	3.10
t New York.....	7,268,012	17.14
u North Dakota.....	319,146	12.54
v North Carolina.....	1,893,810	1.85
w Ohio.....	4,157,545	10.65
x Pennsylvania.....	6,392,115	6.20
y Rhode Island.....	488,555	10.65
z Tennessee.....	2,020,616	1.98
aa Washington (State).....	518,103	11.98
ab West Virginia.....	958,800	3.65
ac Wisconsin.....	2,009,042	15.46

a Includes factory inspection. b Includes factory inspection and free employment offices. c Includes factory inspection and free employment bureaus. d Includes factory inspection. e Includes factory inspection. f Includes factory inspection. g Includes factory inspection and census work. h Includes factory inspection and uninspection. i Includes factory inspection. j Includes factory inspection. k Includes factory inspection. l Does not include factory inspection. m Includes factory inspection. n Includes factory inspection. o Includes factory inspection. p Includes factory inspection. q Includes factory inspection. r Includes factory inspection. s Includes factory inspection. t Includes factory inspection. u Includes factory inspection. v Includes factory inspection. w Includes factory inspection.

## ACKNOWLEDGMENTS.

I cannot conclude this report without making due and proper acknowledgment of my great obligations to various persons and organizations that have assisted me individually and afforded the Bureau much information in the preparation of this report. Secretaries and other officers of labor organizations, the proprietors of manufacturing establishments, statisticians, and commissioners of labor of various states have been uniformly courteous and prompt in their replies to inquiries. To his excellency, the Governor, I am under special obligations for much encouragement and many courtesies in the course of my work. To the Hon. Carroll D. Wright, Commissioner of National Department of Labor at Washington, and to Chas. E. Baldwin, one of his expert assistants, I desire to express my deep sense of gratitude for numerous instances of assistance and kindly suggestions.

Special acknowledgments are due to my deputy, Mr. Arthur E. Holder. He has been not only exceptionally faithful in his work during the entire term of service in the Bureau, but an enthusiastic worker in the prosecution of the inquiries of the Bureau and in the preparation of this report.

Respectfully,

C. F. WENNERSTRUM,  
Commissioner.

To Hon. L. M. Shaw, Governor of Iowa.

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FACTORY INSPECTION.

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## FACTORY

## TABLE

*Height of factory, employees, hours worked, motive power*

Establishment number.	Numb'r of stories in factory.	Are fire escapes provided.	NUMBER OF EMPLOYEES.			Number of children under 14 years.	Hours worked per day.
			M.	F.	Total.		
1	2	No	148		148	3	10
2	4	No	100	50	150	None	10
3	5	No	30	12	42	None	(n)
4	2	No	5	30	35	None	10
5	2	No	30		30	None	10
6	2	No	13		13	None	10
7	2	No	13		13	None	10
8	3	No	150	125	275	10 (q)	10
9	2	No (5)	10	22	32	None	10
10	2	No (6)	40		40	None	10
11	2	No	19		19	None	10
12	2	No	(n)	9	9	None	10
13	2	No	7		7	None	10
14	3	Yes	125	15	140	None (n)	10
15	2	No	20		20	None (r)	10
16	2	No	30		30	None	10
17	2	No	68		68	None	10
18	1	No	6		6	None	10
19	3	No	100	200	300	None (c)	10
20	2	No	100	100	200	None (c)	10
21	5	No					10
22	1	No	45	55	100	None (c)	10
23	2	No	120	3	123	None (c)	10
24	3	No	12	18	30	None (c)	10
25	3	No	44		44	None	10
26	3	No	40		40	None	10
27	5	Yes	125	25	150	(b) 6	10
28	1	No	350		350	None	10
29	1	No	12	20	32	(c) 6	10
30	4	Yes	100		100	None (c)	10
31	2	No	125		125	None (c)	10
32	4	Yes	35	7	42	None (c)	10
33	2	No	45		45	None (c)	10
34	4	No	50		50	None	10
35	1	No	5	2	7	None	10
36	3	No	225	125	350	(c) 4	10
37	3	No	6		6	None	10
38	3	No	60		66	1 (c)	10
39	3	No	30		30	None (w)	10
40	2	No	30		30	None	10
41	3	No	15	4	19	None (c)	10
42	3	Yes	10		10	1	8
43	1	No	5		5	None	9
44	3	No	3	7	10	None	8
45	3	No	40		47	None	9
46	3	No	40	40	80	None	10
47	2	No				None	10
48	3	No	15		15	None	8 (p)
49	1	No	10		10	None	10
50	4	No	250		250	10 (c)	10
51	4	Yes	700	50	750	13 (c)	10
52	3	No	40		40	None (c)	10
53	3	No	12		12	1 (c)	10
54	7	No	35		35	3 (c)	10
55	2	No	10		10	None	12

## INSPECTION.

No. 1.

*used, accidents to employees, and boiler inspection.*

Establishment number.	Motive power used.	Accidents to employees, number wounded.	BOILER INSPECTION.		
			By boiler-maker.	By engineer.	How often.
1	Electric	2	Yes		Monthly.
2	Steam	None	Yes		Monthly.
3	Steam	None	Yes		Monthly.
4	Steam	1 (h)		Yes	Quarterly.
5	Steam	None	Yes		(n)
6	Steam	None	No	Yes	Monthly.
7	Steam	None	No	Yes	Quarterly.
8	Steam	None	No	Yes	Once (o)
9	Steam	None	No	Yes	4 Annually.
10	Steam	None	No	Yes	Monthly.
11	Steam	None	Yes		Monthly.
12	Steam	None	No	No	(i)
13	Steam	None	No	No	
14	Steam	None	No	Yes	Bi-monthly.
15	Steam	None	No	Yes	Regularly.
16	Steam	None	No	Yes	Semi-annually.
17	Steam	None	Yes		Semi-annually.
18	Steam	None	Yes		Semi-annually.
19	Steam	None	Yes		Annually.
20	Steam	None	Yes		Annually.
21		None	No (g)		
22	Gasoline	None	Yes		Weekly.
23	Steam	None	Yes		
24	Water (w)	None	No		
25	Steam	None	Yes		Annually.
26	Steam	(f)	Yes		Quarterly.
27	(M)	None	No		
28	Steam	None	Yes	No	Monthly.
29	Steam	None	No	No	Monthly.
30	Steam	None	Yes	No	Quarterly.
31	Steam	None	Yes	No	Quarterly.
32	Steam	None	Yes	No	Quarterly.
33	Steam	None	Yes	No	Regularly.
34	Gas	None	No	No	(l)
35	Steam	None	Yes		Regularly.
36	Steam	None	Yes		Regularly.
37	Steam	None	Yes		Semi-annually.
38	Electricity	None			
39	Electricity	None			
40	Steam	None	No	Yes	Monthly.
41	Steam	None	Yes		Quarterly.
42		None			
43		None			
44					
45	Water & electricity	None	Yes		Quarterly.
46	Steam	None	(r)		Regularly.
47	Steam	None			
48		None			
49	Electricity	None			
50	Steam	None	Yes		Bi-monthly.
51	Steam & electricity	None	Yes		Bi-monthly.
52	Steam	None	Yes		Quarterly.
53	Steam	None	Yes		Quarterly.
54	Steam	None	Yes		Quarterly.
55	Steam	1 (h)	No	Yes	Semi-monthly.

TABLE No. 1

Establishment number.	Number of stories in factory.	Are fire escapes provided.	NUMBER OF EMPLOYEES.			Number of children under 14 years.	Hours worked per day.
			M.	F.	Total.		
56	2	No	3	1	4	None	10
57	1	No	2		2	None	10
58	4	No	15		15	None	12
59	3	No	7		7	None	10
60	5	Yes	41	9	50	None	10
61	1	No	5	3	8	None	10
62	3	No	58	80	138	None	10
63	3	No	14	2	16	None (c)	10
64	4	No	15		15	None	10
65	2	No	6		6	None	10
66	2	No	14		14	None	10
67	3	No (f)	50		50	None	10
68	2	No	15		15	None (c)	10
69	2	No	2	2	4	None (c)	10
70	2	No (f)	18		18	None	10
71	2	No	11		11	None	10
72	1	No	5		5	None (c)	10
73	4	Yes	100	30	130	None	10
74	4	No	25	40	65	None	10
75	2	No	6		6	None	10
76	2	No	6		6	None	10
77	6	No	60		60	1 (c)	12
78	1	No	18		18	None	8
79	1	No	(n)			None	10
80	4	No	30	18	48	None	10
81	2	No	5		5	None	10
82	2	No	30		30	None	10
83	6	No	1100		1100	None (c)	10
84	2	Yes	125		125	None	10
85	2	No	20	3	23	None	9
86	1	No	20		20	None (c)	9
87	2	None	40		40	None	10
88	2	No	150		150	1 (c)	10
89	1	No	90		90	None (c)	10
90	1	No	6		6	None	10
91	2	No	40		40	None (c)	10
92	1	No	40		40	None (c)	10
93	4	No	23	40	63	None (c)	10
94	3	No	10	20	30	None (c)	10
95	3	No	5		5	None	10
96	2	None	7	30	37	None	10
97	1	No	18		18	None (c)	9½
98	2	No	9		9	None	10
99	4	Yes (p)	20	90	110	8	10
100	4	No	175	50	225	None (c)	10
101	3	No	18		18	None (c)	10
102	2	No	5		5	None	10
103	2	No	5		5	None	10
104	1	No	58		58	None	10
105	1	No	25		25	None	10
106	1	No	7	16	23	None	10
107	1	No	9		9	None	10
108	1	No	7		7	None	10
109	3	No (f)	18		18	None	10
110	1	None	7		7	None	10
111	2	No	12		12	None	10
112	1	No	5	3	8	None (c)	10
113	1	No	2		2	None	10
114	1	No	5		5	None	10
115	2	No	15	35	50	14	10
116	3	No	6	16	22	None	10
117	6	No				None	10
118	2	No				None	10
119	2	No				None	10
120	1	No				None	10
121	4	No	90		90	None	10
122	2	No	50		50	None	10
123	2	No	11		11	None	10
124	1	No	4		4	None	10
125	4	Yes	300		300	None	10
126	4	No	5		5	None	10
127	4	No	10	140	150	5 (c)	8

—CONTINUED.

Establishment number.	Motive power used.	Accidents to employees, number wounded.	BOILER INSPECTION.		
			By boiler-maker.	By engineer.	How often.
56	Steam (i)	None			
57	Steam	None			
58	Steam	None	Yes		Quarterly.
59	Gasoline	None			
60	Steam	None	Yes		Yes, Quarterly.
61	Steam	None			
62	Steam	None			
63	Electricity	None			
64	Electricity	None			
65	Steam	None	Yes		Regularly.
66	Steam	None	Yes		Semi-monthly.
67	Electricity	None			
68	Electricity	None			
69	Electricity	None			
70	Electricity	None			
71	Steam	None	Yes		Quarterly.
72	Steam	None			
73	Steam	None	Yes		Regularly.
74	Steam	None	Yes		Quarterly.
75	Steam	None	No	No	
76	(L)	None			
77	Steam	None	Yes		Regularly.
78	Steam	None	Yes		Regularly.
79	Steam	None	Yes		Regularly.
80	Electricity	None			
81	Steam	None	Yes		Regularly.
82	Steam	None	Yes		Quarterly.
83	Steam	None	Yes		Quarterly.
84	Steam & Electricity	None	Yes		Quarterly.
85	Electricity	None			
86	Steam	None		Yes	Monthly.
87	Steam	None	Yes		Semi-annually.
88	Steam	None	Yes		Quarterly.
89	Steam	None	Yes		Monthly.
90	Steam	None	Yes		(S) Quarterly.
91	Steam	None	Yes		Quarterly.
92	Steam	None	Yes		Semi-annually.
93	Steam	None	Yes		
94					
95					
96					
97					
98					
99	Steam	None	No	Yes	Monthly.
100	Steam	None	Yes		Regularly.
101	Steam	None	No	Yes	Monthly.
102	Leased	None		No	
103	Steam	None	Yes		Monthly.
104	Steam	None	Yes		Quarterly.
105	Steam	None	Yes		Quarterly.
106	Steam	None	Yes		Quarterly.
107	Steam	None	No	Yes	Regularly.
108	Steam	None	No	No	
109	Steam	None	Yes		Regularly.
110	Steam	None	Yes		Regularly.
111	Electricity & Steam	None	Yes		
112	Steam	None	No		
113					
114	Steam	None			
115	Steam	None			
116	Steam	None			
117	Steam	1 (h)	Yes		Regularly.
118	Steam	None	Yes		Regularly.
119	Steam	None	Yes		Regularly.
120	Steam	None	Yes		Monthly.
121	Steam	1 (a)	Yes (I)		Regularly.
122	Steam	None	Yes		Monthly.
123	Steam	None	Yes		Regularly.
124	Steam	None	Yes (I)		Regularly.
125	Steam	None	Yes		Quarterly.
126	Steam	None	Yes		Quarterly.
127	Steam	None	Yes		Quarterly.

TABLE No. 1

Establishment number.	Number of stories in factory.	Are fire escapes provided.	NUMBER OF EMPLOYEES.			Number of children under 14 years.	Hours worked per day.
			M.	F.	Total.		
128	5	No	14	150	164	10 (c)	10.
129	5	No (b)	325		325	None	10.
130	4	Yes	100	50	150	None	10.
131	2	No	6	40	46	None	10.
132	4	No	30	30	60	6 (c)	10.
133	3	No	2		2	None	10.
134	3	No	5	5	10	None	10.
135	3	No (f)	2		2	None	10.
136	1	Yes	110		110	None	10.
137	4	Yes	16	30	46	None	10.
138	5	Yes	250		250	None	10.
139	4	No (s)	150		150	None	10.
140	4	No	250		250	None	10.
141	5	No	30	4	34	None	10.
142	5	No	50		50	None	10.
143	5	Yes	3	90	93	None	10.
144	5	No	20		20	None	10.
145	3	No	200		200	None	10.
146	4	No	40		40	None	10.
147	3	No	50		50	None	10.
148	4	No	90	17	107	None	10.
149	3	No	53		53	None	10.
150	4	No	37	6	43	None	10.
151	4	No (f)	13	4	17	None	10.
152	2	No	101		101	None	10.
153	5	No	20		20	None	10.
154	4	No	4	30	34	2	10.
155	3	No	14		14	2	10.
156	2	No	6	4	10	None	10.
157	3	Yes	175		175	None	10.
158	3	Yes	15	15	30	None	10.
159	4	Yes (f)	12	20	32	None	10.
160	3	Yes	35	85	120	None	10.
161	1	No	10		10	None	10.
162	5	Yes	35	8	43	None	10.
163	2	No	30		30	None	10.
164	3	Yes	35	80	115	None	10.
165	5	Yes	25	75	100	None	10.
166	5	No	350		350	None	10.
167	4	No	13	39	52	1	9.
168	2	No	2		2	None	9.
169	4	Yes	31		31	None	10.
170	3	No	(N)			None	10.
171	3	No	13	17	30	None	9.
172	3	No	110		110	2	10.
173	2	No	50		50	None	11.
174	3	No	100	135	235	10	10.
175	3	No	80	45	125	6	10.
176	4	No	50		50	None	10.
177	1	No	85		85	None	10.
178	4	No	35		35	6	10.
179	4	No	7	25	32	None	10.
180	2	No	75	75	150	None	10.
181	4	No	175	175	350	None	10.
182	3	No	8		8	None	10.
183	3	No	40	12	52	None	10.
184	4	Yes	45		45	None	10.
185	1	No	15		15	None	10.
186	(S)	No	15		15	1	10.
187	6	Yes	350		350	None	10.
188	3	No	5		5	None	10.
189	4	No	150		150	None	10.
190	2	No	40		40	None	10.
191	2	No	20		20	6	10.
192	3	No	16	3	19	1	10.
193	4	Yes	205	150	355	20	10.
194	3	No	8		8	None	10.
195	2	No	12	5	17	None	10.
196	2	No (f)	30		30	None	10.
197	2	No	6		6	None	9.
198	2	No	15		15	None	10.
199	2	No	50		50	None	10.

—CONTINUED.

Establishment number.	Motive power used.	Accidents to employes, number wounded.	BOILER INSPECTION.		
			By boiler-maker.	By engineer.	How often.
128	Electric	None			
129	Steam	None (h)	Yes		Quarterly.
130	Steam	None	Yes		Quarterly.
131	Steam	None	Yes		Quarterly.
132	Steam	None	Yes		Quarterly.
133	Gasoline	None	Yes		Quarterly.
134	Electric	None			
135	Steam	None	Yes		Quarterly.
136	Steam	None	Yes		Quarterly.
137	Steam	None	Yes		Quarterly.
138	Steam	None	Yes		Quarterly.
139	Steam	None (a)	Yes		Quarterly.
140	Steam	1 (h)	Yes		Quarterly.
141	None	None			
142	None	None			
143	None	None			
144	Steam	None	Yes		Regularly.
145	Steam	None	Yes		Regularly.
146	Steam	None	Yes		Regularly.
147	Steam	None	Yes		Regularly.
148	Steam	None	Yes (i)		Regularly.
149	Steam	None	Yes		Regularly.
150	Steam	None	Yes		Regularly.
151	Steam	None	Yes		Regularly.
152	Steam	None	Yes		Regularly.
153	Steam	None	Yes		Regularly.
154	Electric	None	Yes		Regularly.
155	Steam	None	Yes		Regularly.
156	Electric	None	Yes		Regularly.
157	Steam	None	Yes		Regularly.
158	Steam	None	Yes		Regularly.
159	Electric	None			
160	Electric	None			
161	Electric	None	Yes		Regular.
162	Steam	None	Yes		Regular.
163	Steam	None	Yes		Regular.
164	Steam	None	Yes		Regular.
165	Steam	None	Yes		Regular.
166	Steam	None			
167	None	None			
168	Electric	None			
169	Steam	None		Yes (e)	Regular.
170	None	None			
171	None	None	Yes		
172	Hydraulic	None	Yes		Regular.
173	Steam	None	Yes		Regular.
174	Steam	None	Yes		Regular.
175	Steam	None	Yes		Regular.
176	Steam	None	Yes		Regular.
177	Steam	None	Yes		Regular.
178	Steam	None	Yes		Regular.
179	Electric	None			
180	Steam	None	Yes		Regular.
181	Steam	None	No	No	
182	Steam	None	No	No	
183	Steam	None	Yes		Regular.
184	Steam	None	Yes		Regular.
185	Steam	None	Yes		Regular.
186	Steam	None	Yes		Regular.
187	Steam	None	Yes		Regular.
188	Gasoline	None	Yes		Regular.
189	Steam	None	Yes		Regular.
190	Steam	None	(i)		
191	Steam	None			
192	None	None	Yes		Regular.
193	Steam	None	Yes		Regular.
194	Steam	None	Yes		Regular.
195	Electric	None	Yes		Regular.
196	Steam	None	Yes		Regular.
197	Steam	None	Yes		Regular.
198	Steam	None	No		
199	Steam	None	No		

TABLE No. 1

Establishment number.	Numb'r of stories in factory.	Are fire escapes provided.	NUMBER OF EMPLOYEES.			Number of children under 14 years.	Hours worked per day.
			M.	F.	Total.		
200	3	No	18		18	None	10
201	3	No		135	142	None	10
202	2	No	25		25	None	10 (P)
203	3	No	9	20	29	1	9
204	1	No	10	5	15	None	10
205	3	No	10		10	None	10
206	1	No	7		7	None	8
207	1	No	2		2	None	10
208	1	No	5	7	12	None	10
209	1	No	200		200	None	10
210	1	No	4	4	8	None	10
211	3	No	60	20	80	None	10
212	1	No	4		4	None	10
213	3	No	3		3	None	10
214	6	No (1)	70	15	85	None	10
215	2	No	35	55	90	None	10
216	4	No	14	4	18	None	10
217	1	No	6		6	None	10
218	1	No	13	12	25	None	10
219	2	No			80	None (c)	10
220	1	No	40		40	None (c)	10
221	2	No	2		2	None	10
222	2	No	2	35	37	None	8
223	2	No	5	3	8	1	8
224	1	No	15		15	1	10
225	1	No	20		20	1	10
226	1	No	6		6	None	12
227	1	No	5		5	None (c)	9
228	2	No	0		0	1	10
229	1	No	12		12	1	10
230	1	No	4		4		10
231	1	No	8	1	9		10
232	1	No	16		16		10
233	1	No	6		6	1	10
234	2	No	2	12	14	None	10
235	1	No	3		3	None	10
236	1	No	3		3	None	10
237	2	No	3		3	None	9
238	2	No	18		18	None	9
239	2	No	11		11	None	9
240	2	No	10		10	None	10
241	1	No	17		17	None	10
242	6	Yes	600	200	800	35 (c)	10
243	1	No	15		15	None	10
244	5	No	12		12	None	10
245	3	No	690	10	700	70	10
246	4	Yes	30	35	65	10	10
247	3	Yes	30	20	50	None	10
248	2	No	3		3	None	10
249	2	No	2		2	None	10
250	3	No	100		100	0	10
251	4	No	15		15	None	10
252	2	No	8	40	48	None	10
253	1	No	8		8	2	10
254	1	No	60		60	None	9
255	3	No	25	30	55	None	10
256	2	No	19		19	None	10
257	2	No	15		15	None	10
258	3	No	50		50	2	10
259	2	No	15		15	None	10
260	2	No	18		18	2	10
261	3	No	60		60	None	10
262	2	No	350		350	None	8
263	3	No	3		3	None	10
264	1	Yes	52	8	60	8	10
265	2	No	100	40	140	30 (c)	10
266	2	No	265	35	300	8	10
267	2	No	34	4	38	None	10
268	1	No			(N)	None	10
269	4	No	478		478	None	10
270	4	No	100		100	None	10
271	1	No	4		4	None	10

—CONTINUED.

Establishment number.	Motive power used.	Accidents to employees, number wounded.	BOILER INSPECTION.		
			By boiler-maker.	By engineer.	How often
200	Steam	None	No		
201	Steam	None	No		
202	Electric	None			
203	Electric	None			
204	Steam	None	No		
205		None			
206		None			
207	Steam	None			
208	Steam	None	Yes		Regular.
209	Steam	None			Regular.
210	Gasoline	None			
211		None			
212		None			
213		None			
214	Steam	None	Yes		Regular.
215	Steam	None	Yes		Regular.
216	Steam	None			
217	Steam	None	Yes		Regular.
218	Steam	None	Yes		Regular.
219	Steam	None	Yes		Regular.
220	Steam	None	Yes		Regular.
221	Steam	None	No		
222	Gasoline	None			
223	Steam	None			
224	Electric	None			
225	Electric	None			
226	Steam	None			
227	Steam (e)	None			
228	Steam	None	No		
229	Steam	None	No		
230					
231					
232					
233					
234	Steam	None			
235	Steam	None			
236	Steam	None			
237	Steam	None			
238	Steam	None	No		Regular.
239	Steam	None	Yes		
240	Water	None			
241	Water	None			
242	Steam	None	Yes		Regularly.
243	Steam	None	Yes		Regularly.
244	Steam	None	Yes		Regularly.
245	Steam	None	Yes		Regularly.
246	Steam	1 (w)	Yes		Regularly.
247	Steam	None	Yes		Regularly.
248	Steam	None	No	No	
249	Steam	None	Yes		Regularly.
250	Steam	None	Yes		Regularly.
251	Steam	None	Yes		Regularly.
252	Steam	None			
253	Gasoline	None			
254	Steam	None	(s)		
255	Electricity	None			
256	Steam	None	No		
257	Gasoline	None	Yes		Regularly.
258	Steam	None			
259					
260	Steam	None	Yes		Regularly.
261	Steam	None	Yes		Regularly.
262	Steam	None	Yes		Regularly.
263	Electricity	None			
264	Steam	1 (h)	No	No	Regularly.
265	Steam	None	Yes		Regularly.
266	Steam	1 (h)	Yes		Regularly.
267	Steam	None	Yes		Regularly.
268	Steam	None	Yes		Regularly.
269	Steam	None	Yes		Regularly.
270	Steam	None			
271					

TABLE No. 1

Establishment number.	Numb'r of stories in factory.	Are fire escapes provided.	NUMBER OF EMPLOYEES.			Number of children under 14 years.	Hours worked per day.
			M.	F.	Total.		
272	1	No	15		15	None	10
273	1	No	4	4	8	None	10
274	(N)	No	3		3	None	10
275	2	No	15		15	None	10
276	1	No	2		2	None	10
277	2	No	13	5	18	2	10
278	3	Yes	360	1	361	20	10
279	1	No	13	5	18	3	9
280	3	Yes	700		702	20	10
281	1	No	400		400	10	10
282	3	No	35		35	None	10
283	3	No	16	6	22	None	9
284	3	No	50	25	75	None	10
285	2	No	4		4	None	8
286	1	No	12		12	None	10
287	2	No	18	2	20	5	9
288	2	No	18	4	22	6	10
289	1	No	100		100	None	10
290	3	No	60	2	62	None	9
291	2	No	11	2	13	None	9
292	2	No	25	100	125	2	10
293	1	No	2		2	None	10
294	3	No	248		248	10	10
295	2	No	4		4	None	10
296	2	No	50		50	None	10
297	1	No	12		12	None	10
298	2	No	15	25	40	None	10
299	2	No	272		272	None	10
300	1	No	12		12	2	10
301	1	No	24		24	None	10
302	4	No	60	63	123	6	10
303	2	No	30	95	125	None	10
304	3	No	30	2	32	None	9
305	2	No	12	2	14	None	10
306	1	No	5		5	None	10
307	3	No	35	1	36	1	10
308	1	No	(n)				
309	2	No	30		30	2	10
310	2	No	8		8	1	10
311	4	(i)	25		25	None	10
312	2	No	4		4	1	10
313	1	No	(n)			8	10
314	1	No	30		30	None	10
315	2	No	30		30	2	10
316	3	No	8		8	None	10
317	3	No	15		15	10	10
318	3	No	6		6	None	10
319	2	No	3		3	None	10
320	2	No	6		6	2	10
321	1	No	11		11	2	10
322	1	No	40		40	4	10
323	2	No	25		25	10	10
324	1	No	69		69	2	10
325	2	No	35		35	None	10
326	2	No	38		38	4	10
327	2	No	7		7	None	10
328	2	No	250		250	None	10

The number killed are omitted from the tabulation. The fact that we have only 8 deaths emphasizes the necessity of some county official in each county being required by law to report

—CONTINUED.

Establishment number.	Motive power used.	Accidents to employes, number wounded.	BOILER INSPECTION.		
			By boiler-maker.	By engineer.	How often.
272	Steam	None	Yes		Regularly.
273	Steam	None	Yes		Regularly.
274	Steam	None	Yes		Regularly.
275	Steam	None	No	Yes	Regularly.
276					
277	Electricity	None	No	No	
278	Steam	15 (h)	Yes		Quarterly.
279	Electricity	None			
280	Steam	12 (h)	Yes		Quarterly.
281	Steam	Yes (n)	Yes		Weekly.
282	Electricity	None			
283	Steam	None	Yes		Bi-monthly.
284	Steam	Yes (h)	Yes		Weekly.
285					
286	Steam	3 (h)	Yes		Monthly.
287	Steam	10 (h)	Yes		Monthly.
288	Electricity	None			
289	Steam	None			Monthly.
290	Steam	None		Yes	Occasionally.
291	Steam and Electr	None	No	No	(1)
292	Electricity	None			
293	Steam and Electr.	None	Yes		Quarterly.
294	Steam	10 (h)		Yes	Monthly.
295	Steam	None	Yes		Bi-monthly.
296	Gasoline	None			
297	Steam and Electr.	None			
298	Steam	None		Yes	Monthly.
299	Steam	5 (h)		Yes	Bi-monthly.
300	Steam	None		Yes	(1)
301	Steam	None		Yes	Monthly.
302	Steam	None		Yes	Bi-monthly.
303	Steam	None		Yes	Bi-monthly.
304	Gasoline	None			
305	Steam	None		Yes	Monthly.
306	Steam	None			
307	Steam	None	Yes		Monthly.
308					
309	Steam	6 (h)	Yes		Regularly.
310					
311	Electricity	None			
312					
313	Steam	(n)	Yes	Yes	Bi-monthly.
314	Steam	4 (h)	Yes		Occasionally.
315	Steam	(n)	Yes		
316	Turbine	None			
317	Steam	Yes (h)			
318	Turbine and Steam	None			
319	Steam	None	Yes		
320	Steam (s)	None			Monthly.
321	Gasoline	3 (h)	Yes	Yes	
322	Steam	5 (h)			Monthly.
323	Gas and Steam	21			
324	Gas	4 (h)			
325	Gas and Steam	3 (h)	Yes		After using.
326	Steam		Yes		After using.
327	Steam	None	Yes		Regularly.
328	Steam	None	Yes		Bi-monthly.

by accident recorded, viz: 5 from boiler explosion, 2 from set screws and 1 from a circular saw, all deaths by accident to this bureau.

# FACTORY TABLE

*Precautions against accident,*

Establishment number.	STAIRWAYS.			ELEVATORS.		Are belt shifters used?
	Number inside.	Number outside.	Hand rails provided.	Number.	Openings protected.	
1	1	None	No	None		Yes
2	1	None	Yes	1	Yes	Yes
3	2	None	Yes	1	Yes	Yes
4	2	None	Yes	None		Yes
5	2	None	Yes	None		Yes
6	None	1	1	None		Yes
7	1	None	Yes	None		Yes
8	1	None	Yes	None		Yes
9	1	1	Yes	None		Yes
10	1	None	No	1	No	Yes
11	1	None	Yes	None		Yes
12	1	None	Yes	None	Yes	Yes
13	1	None	Yes	None		Yes
14	3	None	Yes	2	No	Yes
15	1	None	Yes	None		Yes
16	1	None	Yes	None	Yes	Yes
17	2	None	Yes	None		Yes
18	None	None	Yes	None		Yes
19	2	None	Yes	None		Yes
20	1	None	Yes	None		Yes
21	(s)			1	Yes	Yes
22	1	Yes	Yes	1	Yes	Yes
23	4	2	Yes	None		Yes
24	1	None	Yes	2	Yes	
25	3	None	No	1	No	Yes
26	1	None	Yes	1	No	Yes
27	4	None	Yes	4	Yes	
28	None	None		None		Yes
29	1	None	Yes	None		No
30	3	None	No	1	Yes	Yes
31	4	None	Yes	1(*)	No	Yes
32	2	None	Yes	1	Yes	Yes
33	2	None	Yes	1	Yes	Yes
34	1	None	Yes	1	Yes	Yes
35	None	None	No	None		Yes
36	2	None	Yes	None		Yes
37	None	None		None		Yes
38	2	None	Yes	1	Yes	Yes
39	1	None	Yes	None		Yes
40	2	None	No	None		Yes
41	2	2	Yes	1	Yes (e)	Yes
42	1	None	Yes	1	Yes	Yes
43	None	None		None		
44	None	None		None		
45		Yes		None		Yes
46	2	None	Yes	2	Yes	Yes
47	1	None	Yes	None		Yes
48	1	None	Yes	None		
49	None	None		None		Yes
50	(s) 2	None	Yes	5	Yes	Yes
51	5	None	Yes	8	No	Yes
52	1	None	Yes	1	No	Yes
53	1	None	Yes	1	No	Yes
54	2	None	Yes	1	Yes	Yes

# INSPECTION.

No. 2.

*and sanitary equipment.*

Establishment number.	Are saws, gearing, wheels, etc. guarded?	Are dust blowers provided?	Ventilation of factory.	Are water closets provided?	Are separate water closets provided for females?	Are closets cleanly?
1	Yes	No	Fair	Yes		No.
2	Yes	Yes	Good	Yes		Yes.
3	Yes	Yes	Good (v)	Yes	Yes	Yes.
4	Yes (v)	No	Poor	Yes (f)		No.
5	Yes	No	Fair	No		
6	Yes	No	Fair	No		
7	Yes	No	Fair	No		
8	No (d)	No	Fair	Yes	Yes	Yes.
9	Yes	No	Good (f)	Yes	Yes	No (c).
10	Yes	No	Good	Yes		Yes.
11	Yes	No	Good	Yes		Yes.
12	Yes	No	Good	Yes		No.
13	Yes	No	Fair	Yes	Yes	Yes.
14	Yes	No	Fair	Yes	Yes	Yes.
15	Yes	No	Good	Yes	Yes	Yes.
16	Yes	No	Good	Yes		Yes.
17	Yes	No	Good	Yes		
18	Yes	No	Good	Yes		
19	Yes	No	Good	Yes	Yes	Yes.
20	Yes	No	Good	Yes	Yes	No.
21	(s)			Yes		Yes.
22	Yes	No	Good	Yes	Yes	Yes.
23	Yes	No	Good	Yes	Yes	Yes.
24		No	Fair	Yes		No.
25	Yes	Yes	Yes	Yes		No.
26	Yes	Yes	Yes	Yes	Yes	Yes.
27	Yes	Yes	Yes	Yes		No.
28	Yes	No	Fair	No		No.
29	Yes	No	Fair	Yes	Yes	Yes.
30	Yes	Yes	Good	Yes		Yes.
31	Yes	Yes	Good	Yes	Yes	Yes.
32	Yes	Yes	Good	Yes		No (w).
33	Yes	Yes	Good	No		Yes.
34	Yes	No	Good	Yes	No	Yes.
35	Yes	No	Bad	Yes		No (w).
36	No	No	Good	No	Yes	No.
37	Yes	No	Good	Yes		No.
38	Yes	No	Good	Yes	Yes	Yes.
39	Yes	No	Fair	Yes		No.
40	No	No	Good	No		No.
41	Yes	No	Good	Yes	Yes	Yes.
42	Yes	No	Fair	Yes		Yes.
43		No	Fair	Yes		Yes.
44	Yes	No	Good	Yes	No	Yes.
45	Yes	No	Good	Yes	Yes	Yes.
46	Yes	No	Good	Yes		No.
47	Yes	No	Good	Yes		No.
48			Good	Yes		No.
49	Yes	No	Good	Yes		No.
50	No	No	Fair	Yes	Yes	No.
51	Yes	No	Fair	Yes		No.
52	No	No	Poor	Yes		No.
53	Yes	No	Poor	Yes	Yes	No.
54	Yes	No	Good	Yes		Yes.

TABLE No. 2

Establishment number.	STAIRWAYS.			ELEVATORS.		Are belt shifters used.
	Number inside.	Number outside.	Hand rails provided.	Number.	Openings protected.	
55	1	None	Yes	None		Yes
56	None	1	Yes	None		Yes
57	None	None	None	None		Yes
58	1	None	Yes	None		Yes
59	2	None	Yes	1	Yes	Yes
60	1	None	Yes	2		Yes
61	None	None	None	None	Yes	Yes
62	(g) 1	None	Yes	2	Yes	Yes
63	2	None	None	1	Yes	Yes
64	None	None	None	None		Yes
65	1	None	No	None		Yes
66	1	None	Yes	1	Yes	Yes
67	1	1	Yes	1	Yes	Yes
68	1	None	No	None (e)		Yes
69	1	1	Yes	None		Yes
70	1	1	Yes	None		Yes
71	1	None	Yes	None		Yes
72	None	None	None	None		Yes
73	1	None	Yes	2	Yes	Yes
74	1	None	Yes	None		Yes
75	1	None	No	None		Yes
76	2	None	Yes	1	Yes	Yes
77	1	None	None	None		Yes
78	None	None	None	None	Yes	Yes
79	None	None	None	None		Yes
80	1	None	Yes	None		Yes
81	1	None	Yes	None		Yes
82	1	None	Yes	5	Yes	Yes
83	2	None	Yes	1	Yes	Yes
84	1	None	Yes	None		Yes
85	1	None	Yes	None		Yes
86	None	None	None	None		Yes
87	None	None	None	None		Yes
88	None	None	Yes	None		Yes
89	None	None	None	None		Yes
90	None	None	None	None		Yes
91	None	None	None	None		Yes
92	None	None	No	1	Yes	Yes
93	1	None	No	1	Yes	Yes
94	1	None	Yes	None		Yes
95	1	None	Yes	None		Yes
96	1	None	Yes	None		Yes
97	1	None	Yes	None		Yes
98	1	None	Yes	1	Yes	Yes
99	2	None	Yes	3	No	Yes
100	(s)	None	Yes	None		Yes
101	1	None	None	None		Yes
102	2	None	Yes	None		Yes
103	1	None	None	None		Yes
104	None	None	None	None		Yes
105	None	None	None	None		Yes
106	None	None	None	None		Yes
107	None	None	None	None		Yes
108	None	None	No	0	No	Yes
109	2	None	None	None		Yes
110	None	None	Yes	None		Yes
111	1	None	Yes	None		Yes
112	None	1	Yes	None		Yes
113	1	None	Yes	None		Yes
114	1	None	Yes	None		Yes
115	1	None	Yes	None	Yes	Yes
116	2	None	Yes	None		Yes
117	2	None	Yes	(E)	Yes	Yes
118	1	None	Yes	None		Yes
119	1	None	None	None		Yes
120	None	None	None	None		Yes
121	1	None	Yes	2	Yes	Yes
122	1	None	Yes	None		Yes
123	1	None	Yes	None		Yes
124	None	None	None	None		Yes
125	2	None	None	2	Yes	Yes

—CONTINUED.

Establishment number.	Are saws, gearing, wheels, etc. guarded?	Are dust blowers provided?	Ventilation of factory.	Are water closets provided?	Are separate water closets provided for females?	Are closets cleanly?
55	Yes	No	Fair	No		
56	Yes	No	Good	Yes	Yes	Yes.
57	No	No	Poor	No		No.
58	Yes	Yes	Fair (v)	Yes		No.
59	Yes	No	Good	Yes		No.
60	Yes	No	Good	Yes		Yes.
61	Yes	No	Good	Yes	Yes	Yes.
62	Yes	No	Fair	Yes	Yes	Yes.
63	Yes	No	Good	Yes	Yes	No.
64	Yes	No	Fair	Yes		No.
65	No	No	Fair	Yes		No.
66	No	No	Good	Yes		Yes.
67	Yes	Yes	Good	Yes		Yes.
68	No	No	Good	Yes		No.
69	No	No	Poor	No	No	
70	Yes	No	Good	Yes		No.
71	Yes	No	Fair	Yes		Yes.
72	No	No	Fair	No		No.
73	Yes	No	Good	Yes	Yes	Yes.
74	Yes	No	Fair	No	Yes	Yes.
75	No	No	Fair	No		
76	No	No	Fair	Yes		No.
77	Yes	No	Poor	Yes		No.
78	No	No	Good	Yes		Yes.
79	Yes	Yes	Good	Yes		Yes.
80	Yes	No	Good	Yes	Yes	Yes.
81	Yes	No	Good	No		
82	No	No	Good	Yes		Yes.
83	Yes	No	Good	Yes		No.
84	Yes	Yes	Good	Yes		Yes.
85	No	No	Good	Yes	Yes	No.
86	No	No	Fair	Yes		No.
87	No	No	Fair	Yes		No.
88	Yes	Yes	Good	Yes		Yes.
89	No	No	Good	Yes		Yes.
90	No	No	Good	No (x)		
91	No	No	Good	Yes	Yes	No.
92	No	No	Fair	Yes		No.
93	Yes	No	Fair	No (w)		No.
94			Good	Yes	Yes	No.
95			Fair	Yes	No (w)	Yes.
96			Good	Yes	Yes	Yes.
97			Good	Yes	Yes	Yes.
98			Fair	Yes	No	No.
99	Yes	No	Fair	Yes	Yes	No.
100	No	No	Poor	Yes	Yes	No.
101	No	No	Good	Yes		No.
102	No	No	Fair	No		No.
103	Yes	No	Fair	No		
104	No	No	Fair	Yes		Yes.
105	No	No	Good	Yes		No.
106	No	No	Good	Yes		No.
107	Yes	No	Fair	No	No	No.
108	No	No	Fair	No		No.
109	No	No	Fair	No		No.
110	No	No	Fair	No		
111	Yes	No	Fair	No		
112	No	No	Poor	No		
113			Fair	Yes	No	No.
114	Yes	No	Fair	Yes	No	No.
115	No	No	Good	Yes		No.
116	No	No	Fair	Yes	Yes	Yes.
117	No	No	Fair	Yes	No	Yes.
118	No	No	Bad	Yes	Yes	No.
119	Yes	No	Good	Yes	No	No.
120	Yes	No	Good	Yes	No	No.
121	Yes	Yes	Good	Yes		No.
122	Yes	No	Good	Yes		Yes.
123	Yes	No	Good	Yes		No.
124	No	No	Good	Yes		Yes.
125	Yes	No	Good	Yes	Yes	Yes.

TABLE No.

Establishment number.	STAIRWAYS			ELEVATORS.		Are belt shifters used?
	Number inside.	Number outside.	Hand rails provided.	Number.	Openings protected?	
126	None	None			Yes	Yes
127	1	None	Yes	2	Yes	Yes
128	1	None	Yes	2	Yes	Yes
129	1	None	Yes	2	Yes	Yes
130	1	None	Yes	1	Yes	Yes
131	1	None	Yes	1	Yes	Yes
132	2	None	Yes	1	Yes	Yes
133	1	None	Yes	1	Yes	Yes
134	2	None	Yes	1	No	Yes
135	1	None	Yes	(f) 1	No	Yes
136	None	None	Yes	1	Yes	Yes
137	3	None	Yes	3	Yes	Yes
138	1	None	Yes	1	Yes	Yes
139	1	None	Yes	3	Yes	Yes
140	3	None	Yes	3	Yes	Yes
141	2	None	Yes	1	Yes	Yes
142	1	None	Yes	1	Yes	Yes
143	1	None	Yes	1	Yes	Yes
144	1	None	Yes	2	Yes	Yes
145	1	None	Yes	1	Yes	Yes
146	1	None	Yes	1	Yes	Yes
147	1	None	Yes	1	Yes	Yes
148	2	None	Yes	1	No	Yes
149	1	None	Yes	1	Yes	Yes
150	1	None	Yes	1	Yes	Yes
151	2	None	Yes	(w) 1	No	Yes
152	1	None	None	1	Yes	Yes
153	1	None	Yes	1	Yes	Yes
154	1	None	Yes	1	Yes	Yes
155	1	None	Yes	None	Yes	Yes
156	(g)	None	Yes	(e)	Yes	Yes
157	1	None	Yes	1	Yes	Yes
158	1	None	Yes	3	(e)	Yes
159	1	None	Yes	1	Yes	Yes
160	1	None	Yes	None	Yes	Yes
161	None	None		1	Yes	Yes
162	1	None	No	None	Yes	Yes
163	2	None	Yes	1	Yes	Yes
164	1	None	Yes	(f) 1	Yes	Yes
165	1	None	Yes	(f) 6	Yes	Yes
166	12	None	Yes	1	Yes	Yes
167	1	None	Yes	None	Yes	Yes
168	1	None	Yes	1	Yes	Yes
169	1	None	Yes	1	Yes	Yes
170	1	None	Yes	1 (h)	Yes	Yes
171	2	None	Yes	4	Yes	Yes
172	6	None	Yes	None	Yes	Yes
173	1	None	Yes	1 (h)	Yes	Yes
174	1	None	Yes	None	Yes	Yes
175	2	None	Yes	1	Yes	Yes
176	(g)	None		None	Yes	Yes
177	None	None		None	Yes	Yes
178	None	None		None	Yes	Yes
179	2	None	Yes	1	Yes	Yes
180	1	None	Yes	None	Yes	Yes
181	3	None	Yes	1	Yes	Yes
182	1	None	No	1	No	Yes
183	1	None	Yes	1	No	Yes
184	2	None	Yes	1	Yes	Yes
185	None	None		None	Yes	Yes
186	None	None		None	Yes	Yes
187	(d)	None	Yes	None	Yes	Yes
188	1	None	Yes	None	Yes	Yes
189	2	None	Yes	1	Yes	Yes
190	2	None	Yes	1	Yes	Yes
191	1	None	Yes	1	Yes	Yes
192	1	None	No			
193	2	None	Yes	1	Yes	Yes
194	1	None	Yes	1	No	Yes
195	1	None	Yes	1	No	Yes
196	1	None	Yes	2	Yes	Yes

2—CONTINUED.

Establishment number.	Are saws, gearing, wheels, etc. guarded?	Are dust blowers provided?	Ventilation of factory.	Are water closets provided?	Are separate water closets provided for females?	Are closets cleanly?
126	No	No	Good	Yes	No	No.
127	Yes	No	Good	Yes	No	Yes.
128	Yes	No	Good	Yes	Yes	Yes.
129	Yes	No	Good	Yes	Yes	No.
130	Yes	No	Good	Yes	Yes	No.
131	Yes	No	Good	Yes	Yes	Yes.
132	Yes	No	Good	Yes	Yes	Yes.
133	No	No	Fair	Yes	Yes	No.
134	Yes	No	Fair	Yes	Yes	No. (w)
135	Yes	No	Good	Yes	Yes	No.
136	No	No	Good	Yes	Yes	No.
137	No	No	Good	Yes	Yes	Yes.
138	Yes	No	Good	Yes	Yes	No.
139	No	No	Fair	Yes	Yes	No.
140	Yes	Yes	Good	Yes	Yes	Yes.
141	Yes	No	Good	Yes	No	Yes.
142			Good	Yes		No.
143	Yes	No	Fair	Yes		No.
144	Yes	No	Fair	Yes		No.
145	Yes	No	Fair	Yes		No.
146	Yes	No	Good	Yes		No.
147	No	No	Good	Yes		No.
148	Yes	No	Good	Yes	Yes	Yes.
149	Yes	No	Good	Yes	Yes	Yes.
150	Yes	No	Good	Yes	Yes	Yes.
151	Yes	No	Good	Yes	Yes	Yes.
152	Yes	No	Good	Yes	Yes	No.
153	No	No	Good	Yes	Yes	No.
154	No	No	Good	Yes	Yes	Yes.
155	No	No	Good	Yes	Yes	Yes.
156	Yes	No	Good	Yes	Yes	Yes.
157	Yes	No	Good	Yes	Yes	Yes.
158	No	No	Good	Yes	Yes	Yes.
159	No	No	Good	Yes	Yes	Yes.
160	Yes	No	Good	Yes	Yes	Yes.
161	Yes	No	Good	Yes	Yes	Yes.
162	No	No	Good	Yes	Yes	Yes.
163	No	No	Good	Yes	Yes	Yes.
164	Yes	No	Good	Yes	Yes	Yes.
165	No	No	Good	Yes	Yes	Yes.
166	Yes	No	Good	Yes	Yes	Yes.
167			Good	Yes	Yes	Yes.
168	Yes	No	Good	Yes	Yes	Yes.
169	Yes	No	Good	Yes	Yes	Yes.
170	No	Yes	Good	Yes	Yes	Yes.
171			Good	Yes	Yes	Yes.
172	Yes	No	Good	Yes	Yes	Yes.
173	No	No	Good	Yes	Yes	No.
174	No	No	Good	Yes	Yes	Yes.
175	Yes	No	Good	Yes	Yes	Yes.
176	No	No	Good	Yes	Yes	Yes.
177	No	No	Good	Yes	Yes	No.
178	No	No	Good	Yes	Yes	Yes.
179	Yes	No	Good	Yes	Yes	Yes.
180	Yes	No	Good	Yes	Yes	Yes.
181	Yes	No	Good	Yes	Yes	Yes.
182	Yes	No	Good	Yes	Yes	No.
183	No	No	Good	Yes	Yes	Yes.
184	Yes	No	Good	Yes	Yes	Yes.
185	Yes	No	Good	Yes	Yes	No.
186	No	No	Good	Yes	Yes	No.
187	Yes	No	Fair	Yes	Yes	Yes.
188	No	No	Good	Yes	Yes	Yes.
189	Yes	No	Good	Yes	Yes	Yes.
190	Yes	No	Good	Yes	Yes	Yes.
191	Yes	No	Good	Yes	Yes	Yes.
192			Bad	Yes	Yes	No.
193	Yes	Yes	Good	Yes	Yes	Yes.
194	No	Yes	Good	Yes	Yes	Yes.
195	Yes	No	Good	Yes	Yes	Yes.
196	Yes	No	Good	Yes	Yes	No.

TABLE No.

Establishment number.	STAIRWAYS			ELEVATORS.		Are belt shifters used.
	Number inside.	Number outside.	Hand rails provided.	Number.	Openings protected.	
197	1	None	Yes	None		Yes
198	1	None	Yes	None		Yes
199	1	None	Yes	1 (h)		Yes
200	1	None	Yes	1	Yes	Yes
201	1	None	Yes	1	Yes	Yes
202	1	None	No	None		Yes
203	1	None	Yes	1 (F)	Yes	Yes
204	None	None		None		Yes
205	1	None	No	None		Yes
206	None	None		None		Yes
207	None	None		None		Yes
208	None	None		None		Yes
209	None	None		None		Yes
210	None	None		None		Yes
211	None	None		1	No	Yes
212	None	None		None		Yes
213	None	None		None		Yes
214	1	None	Yes	None		Yes
215	2	None	Yes	None		Yes
216	1	None	Yes	None		Yes
217	None	None		None		Yes
218	None	None		None		Yes
219	1	None	Yes	1	Yes	Yes
220	None	None		None	Yes	Yes
221	None	None		None		Yes
222	1	None		1	Yes	Yes
223	1	None	Yes	None		Yes
224				Yes		Yes
225	None	None		None		Yes
226	None	None		None		Yes
227	None	None		None		Yes
228	1	None	Yes	None		Yes
229	None	None		None		Yes
230	None	None		None		Yes
231	None	None		None		Yes
232	None	None		None		Yes
233	None	None		None		Yes
234	1	None	Yes	1 (H)	Yes	Yes
235	None	None		None		Yes
236	None	None		None		Yes
237	1	None	None	None		Yes
238	1	None	Yes	None		Yes
239	1	None	Yes	None		Yes
240	1	None	Yes	1	Yes	Yes
241	None	None	Yes	None		Yes
242	5	None	Yes	3	Yes	Yes
243	None	None		None		Yes
244	4	None	Yes	1	Yes	Yes
245	1 (H)	None		1	Yes	Yes
246	2	None	Yes	1	Yes	Yes
247	1	None	Yes	1	Yes	Yes
248	1	None	Yes	None		Yes
249	None	None		None		Yes
250	1	None	Yes	1 (F)	Yes	Yes
251	1	None	Yes	1 (F)	Yes	Yes
252	1	None	Yes	1 (F)	Yes	Yes
253	None	None		None		Yes
254	None	None		None		Yes
255	None	None		1	Yes	Yes
256	1	None	Yes	None		Yes
257	1	None	Yes	1	Yes	Yes
258	1	None	Yes	1	Yes	Yes
259	1	None	Yes	None		Yes
260	1	None	Yes	1	Yes	Yes
261	1	None	Yes	1 (F)	Yes	Yes
262	1	None	Yes	None		Yes
263	(s) 1	None		None		Yes
264	1	None	Yes	1	Yes	Yes
265	1	None	No	1	Yes	Yes
266	1	None	Yes	None		Yes
267	1	None	No	None		Yes

2—CONTINUED.

Establishment number.	Are saws, gearing, wheels, etc., guarded?	Are dust blowers provided?	Ventilation of factory.	Are water closets provided?	Are separate water closets provided for females?	Are closets cleanly?
197	Yes	No	Good	Yes		Yes
198	No	No	Fair	Yes		No
199	No	No	Good	Yes	Yes	Yes
200	Yes	No	Good	Yes		No
201	Yes	No	Fair	Yes		No
202	Yes	No	Fair	Yes		No
203	Yes	No	Good	Yes	Yes	Yes
204	Yes	No	Bad	Yes		No
205	Yes	No	Poor	Yes		No
206			Good	Yes		Yes
207	Yes	No	Good	Yes		Yes
208	Yes	No	Good	Yes		Yes
209	No	No	Good	Yes		No
210	No	No	Fair	Yes	No	No
211	Yes	No	Poor	Yes	Yes	No
212			Fair	Yes		No
213			Good	Yes		Yes
214	Yes	No	Fair	Yes	Yes	Yes
215			Good	Yes	Yes	Yes
216	No	No	Fair	Yes		No
217	No	No	Fair	Yes	Yes	No
218	No	No	Fair	Yes		Yes
219	No	No	Good	Yes		Yes
220	No	No	Fair	Yes		Yes
221	No	No	Fair	Yes		No
222	Yes	No	Good	Yes	Yes	Yes
223			Fair	Yes	No	No
224	Yes	No	Good	Yes (p)		
225	No	No	Good	No		
226	No	No	Good	No		
227	No	No	Fair	No		
228	No	No	Good	Yes		Yes
229	No	No	Fair	Yes		No
230			Fair	Yes		No
231			Good	Yes	Yes	Yes
232			Good	Yes		Yes
233			Good	No		
234	No	No	Fair	Yes	Yes	Yes
235	No	No	Fair	No		
236	No	No	Fair	No		
237	No	No	Good	Yes		Yes
238	No	No	Good	Yes		Yes
239	No	No	Fair	Yes		Yes
240	No	No	Fair	Yes		No
241	Yes	No	Poor	Yes		No
242	No	No	Fair	Yes	Yes	Yes
243	No	No	Fair	Yes		No
244	Yes	No	Fair	Yes		Yes
245	No	No	Fair	Yes	No	Yes
246	No	No	Fair	Yes	Yes	Yes
247	No	No	Good	Yes	Yes	Yes
248	No	No	Fair	No		
249	No	No	Good	No		
250	No	No	Good	Yes		No
251	Yes	No	Good	Yes		Yes
252	Yes	No	Good	Yes	Yes	Yes
253	Yes	No	Good	Yes		Yes
254	Yes	No	Fair	Yes		No
255	Yes	No	Good	Yes	Yes	Yes
256	Yes	No	Fair	Yes		No
257	No	No	Fair	Yes		No
258	No	No	Good	Yes		Yes
259	No	No	Good	Yes		Yes
260	No	No	Fair	No		
261	No	No	Good	Yes		No
262	Yes	No	Good	Yes		No
263	Yes	No	Good	Yes		No
264			Good	Yes	Yes	Yes
265			Poor	Yes	Yes	No
266	No	No	Good	Yes		Yes
267	No	No	Fair	Yes	Yes	No

TABLE No.

Establishment number.	STAIRWAYS.			ELEVATORS.		Are belt shifters used.
	Number inside.	Number outside.	Hand rails provided.	Number.	Openings protected.	
268	None	None		None		Yes
269	Yes	Yes	(N)	None		Yes
270	1	None	Yes	1	Yes	Yes
271	None	None		None		Yes
272	None	None		None		Yes
273	None	None		None		Yes
274	None	None	No	None		Yes
275	None	None		None		
276	None	None		None		
277	1	None	Yes	None		Yes
278	8	4	Yes	5	Yes	Yes
279	1	None	Yes	12	Yes	Yes
280	None	None		None		Yes
281	None	None		1	Yes	Yes
282	2	None		None		Yes
283	3	None	Yes	None		Yes
284	3	None	Yes	1	Yes	Yes
285	1	None	Yes	None		
286	None			None	No	Yes
287	(n)	None	Yes	None		Yes
288	2	None		None		Yes
289	None	None		None		Yes
290	8	No		4	Yes	Yes
291	2	None	Yes	None		Yes
292	2	None	Yes	None		Yes
293	None	None		None		Yes
294	3	None	Yes	1	Yes	Yes
295	2	None	Yes	None		Yes
296	1	None	Yes	None		Yes
297	None	None		None		Yes
298	1	1		None		Yes
299	6	None	Yes	2	Yes	Yes
300	None	None		None		Yes
301	None	None		None		Yes
302	6	None		1	Yes	Yes
303	2	None	Yes	None		Yes
304	1	None	Yes	None		Yes
305	1	None	Yes	1	No	Yes
306	None	None		None		Yes
307	2	None		1	No	Yes
308	None	None		None		Yes
309	2	None		1	Yes	Yes
310	1	None	Yes	1	Yes	Yes
311	2	None	Yes	1	Yes	Yes
312	1	None	Yes	None		Yes
313	None	None		None		Yes
314	None	None		None		Yes
315	1	None		1	Yes	Yes
316	(s)	None		None		Yes
317	None	None		None		Yes
318	(n)	None		None		Yes
319	1	None	Yes	1	Yes	Yes
320	1	None		1	Yes	Yes
321	None	None		None		Yes
322	None	None		None		Yes
323	1	None	Yes	1	Yes	Yes
324	None	None		None		Yes
325	3	None	Yes	1	Yes	Yes
326	3	None	Yes	1	Yes	Yes
327	1	None	Yes	1	Yes	Yes
328	1	None	Yes	1	Yes	Yes

--CONTINUED.

Establishment number.	Are saws, gearing, wheels, etc., guarded?	Are dust blowers provided?	Ventilation of factory.	Are water closets provided?	Are separate water closets provided for females?	Are closets cleanly?
268	No	No	Fair	Yes		Yes.
269	Yes	No	Fair	Yes		Yes.
270	Yes	No	Fair	Yes		No.
271			Good	Yes		Yes.
272	Yes	No	Good	Yes		
273	No	No	Good	Yes	No.	Yes.
274	No	No	Fair	No		
275	No	No	Fair	Yes		Yes.
276			Fair			
277	No	No	Good	Yes	No.	Yes.
278	Yes	No	Fair	Yes		No.
279	Yes	No	Good	Yes	Yes	Yes.
280	Yes	No	Good	Yes		Yes.
281	Yes	No	Good	Yes		Yes.
282	Yes	No	Fair	Yes		No.
283	Yes	No	Good	Yes	Yes	Yes.
284	Yes	No	Good	Yes	Yes	Yes.
285			Good	Yes		Yes.
286	Yes	No	Fair	Yes		No.
287	No	No	Good	Yes		No.
288	Yes	No	Good	Yes	Yes	No.
289	Yes	No	Fair	Yes		No.
290	Yes (s)	No	Fair	Yes		No.
291	Yes	No	Good	Yes	No	Yes.
292	Yes	No	Good	Yes	Yes	Yes.
293	Yes	No	Fair	Yes		Yes.
294	Yes	No	Fair	Yes	No	Yes.
295	Yes	No	Fair	Yes		Yes.
296	Yes	No	Good	Yes		Yes.
297	Yes	No	Good	Yes	Yes	Yes.
298	No	No	Good	Yes		Yes.
299	Yes	No	Good	Yes		
300	Yes	No	Good	No (n)		
301	Yes	No	Fair	Yes		Yes.
302	Yes	No	Good	Yes	Yes	Yes.
303	Yes	No	Good	Yes	Yes	Yes.
304	Yes	No	Good	Yes	No	Yes.
305	Yes	No	Good	No		(O).
306	Yes (s)	No	Fair	No		(O).
307	Yes	No	Fair	No		
308	Yes	No	Fair	No		
309	No	No	Good	Yes		No.
310	Yes	No	Fair	No		(O).
311	Yes	No	Fair	Yes		Yes.
312	Yes	No	Good	Yes		Yes.
313	Yes	No	Good	Yes		Yes.
314	Yes	No	Good	Yes		Yes.
315	Yes	No	Good	No		No.
316	Yes	No	Good	Yes		No.
317	Yes	No	Fair			
318	Yes	No	Good	No		
319	Yes	No	Good	N (w)		
320	Yes	No	Good	Yes		Yes.
321	Yes	No	Good			
322	Yes	No	Good	Yes		Yes.
323	No (s)	No	Good	Yes		Yes.
324	Yes	No	Good	Yes		Yes.
325	Yes	No	Good	Yes		Yes (x).
326	Yes	No	Good	Yes		Yes.
327	Yes	No	Good	Yes		Yes.
328	Yes	No	Good	Yes		Yes.

## REMARKS AND RECOMMENDATIONS.

1. (a) Outside fire escape and gate to open out.
2. (m) None.
3. None.
4. Guard near ironing machine.
5. More room provided for passing of operators.
6. (r) None.
7. Requested water closet for employes.
8. Requested removal of set screws and guard near engine.
9. None.
10. Guards for elevators and decent closets.
11. None.
12. None.
13. Asked for clean closets.
14. Guards for elevators.
15. None.
16. None.
17. None.
18. None.
19. None.
20. Decent and cleanly closets.
21. None.
22. Fire escapes.
23. Fans for ventilators.
24. Fire escapes.
25. Fire escapes. Clean closets.
26. Fire escapes. Clean closets. Elevator guards.
27. None.
28. Water closets at once.
29. Clean water closets.
30. None.
31. Guard for outside elevator.
32. None.
33. Decent water closets.
34. Fire escape.
35. Better ventilation.
36. Removal of dangerous set screws. Belt boxed.
37. Decent water closets. Belts boxed.
38. None.
39. Belt covered and closets kept clean.
40. Belt covered. Decent water closets.
41. As modern closets are being built, no recommendation.
42. None.
43. None.
44. None.
45. Separate water closets for females.
46. Fire escapes.
47. Decent water closets.
48. Water closets to be ventilated.
49. Water closets to be ventilated.
50. Clean closets. Boxing for large fly wheel.
51. Closets cleaned daily. Automatic elevator gates.

52. Clean closets. Fly wheel guarded. Elevator guards.
53. Elevator guards. Decent closets.
54. Fire escapes. Railing near fly wheel. Water closets ventilated.
55. Water closets. Guard for fly wheel.
56. None.
57. Decent closet arrangements.
58. Fire escapes. Ventilation of closet and engine room. Exit for engine room.
59. Fire escapes or fire ladders.
61. None.
62. Fire escapes.
63. Clean closets.
64. Clean closets.
65. Clean closets with better access to same.
66. Drive belt properly guarded.
68. Decent water closets.
69. Enclosure for belt and dynamo. Decent water closets.
70. Regular cleaning of water closet.
71. Fire escapes should be erected.
72. Guard placed around engine.
73. None.
74. Belts guarded. Removal of set screws.
75. Guard for fly wheels and decent water closets.
76. Decent closets. Stair guard and bar shipping door cog-wheel guard.
77. Fire escapes. Belts and shafts to be guarded.
78. Foot guard main engine. Hand rail generator.
79. None.
80. None.
81. None.
82. Better boxing of drive belts.
83. Better care of water closets and urinals.
84. None.
85. Clean closets, correcting stereotyping fixture.
86. (w) Guard for fly wheel. Decent water closet.
87. Guard for belts every where. Clean closets.
88. None.
89. Removal set screw at rattler and guard at engine.
90. Guard for pending machines.
91. Guard for engine. Clean closets.
92. Clean water closet. Guard for shears and punch.
93. Separate water closet. Fire escapes.
94. Ventilation for closets.
95. Fire escapes.
96. None.
97. Guard for shipping door.
98. Cover on closet, closet locked and kept clean.
99. Clean closets.
100. Keeping closets decent and removal set screws.
101. Better water closets. Guard for elevator.
102. Regular boiler inspection. Boxed belts. Water closets.
103. Water closets.
104. Guards for belts every where and for large clutch.
105. Guards for belt and shafting. Decent closets.
106. Guards for shafts and clean closets.
107. Water closet.
108. Decent water closets. Guards needed every where.
109. Water closet. Belt boxed. Elevator guards. Removal of set screws.
110. Water closet, belt and shafting guarded.
111. Water closets should be provided.
112. Water closet and removal of set screws.
113. Clean and separate closets.
114. Clean and separate closets.
115. Clean closet. Wheel guarded.
116. Guarding belts and set screws.

117. Guard for fly wheel. Closet screened and locked.
118. Not operated. No recommendation.
119. Clean water closets.
120. Water closets clean and door provided.
121. None.
122. Clean water closets.
123. Clean closets
124. All dangerous machinery be guarded.
125. None.
126. Guard for all belts. Closet fixed and kept clean.
127. Separate water closets. Fire escapes.
128. None.
129. Clean closets.
130. Clean water closets.
131. Fire escapes.
132. Demanded fire escapes.
133. Fire escapes. Clean closets. Fly-wheel guard.
134. Clean closet.
135. Lock and keep closets clean.
136. Rattler guarded. Clean and disinfected closets.
137. Guard for fly-wheel in basement.
138. Clean closets.
139. Guard for engine. Clean closets.
140. None.
141. Ladder for fire escape.
142. Fire escapes. Clean closets.
143. None.
144. New floor. Water closet. Guard cone pulleys.
145. Clean closet.
146. Better water closet.
147. Clean closets. Band saw uncovered. Set-screw removed
148. Guard for fly-wheel
149. None.
150. None.
151. Guard at dry kiln.
152. Clean and disinfect closet
153. Clean closets.
154. Fire escapes.
155. Guard for fly-wheel.
156. Fire escape.
157. None.
158. Guard for cog-wheel.
159. Removal of set-screws.
160. None.
161. Clean closets.
162. Set screws removed.
163. None.
164. None.
165. Guard for cogwheel.
166. None.
167. None.
168. Belts and set screws removed.
169. None.
170. Set screws removed.
171. None.
172. None.
173. Clean closets. Machinery guarded.
174. Removal of set screws.
175. That workmen have more room.
177. Clean closet. Lathe covered.
178. Governor wheel protected.
179. None.
180. None.

181. (n).
182. Elevator guards and clean closet.
184. Clean closet.
185. Clean closets.
186. Clean closets. Removal set screws.
187. None.
188. Remove set screws. Clean closet.
189. None.
190. None.
191. None.
192. Clean closet. Fire escape.
193. Clean closets. Set screws guarded.
194. Wheels and elevator guarded.
195. None.
196. Clean closets.
197. None.
198. Cover shaft from engine. Remove set screws. Clean closets
199. Removal of set screws
200. None.
202. Clean closets.
203. None.
204. Clean closets. Removal of set screws.
205. Clean up generally.
206. None.
207. None.
208. Keep closets locked.
209. Clean closets. Belts covered. Set screws removed.
210. Separate or locked closets, clean closets.
211. General cleaning up.
212. Clean closets.
213. None.
214. Clean closets. Remove set screws.
215. Clean closets. Removal set screws.
216. None.
217. Clean closets. Better condition machinery.
218. Clean closets. Machinery guarded.
219. Removal of dangerous set screws.
220. Removal of set screws.
221. Removal of set screws.
222. None.
223. None.
224. None.
225. Water closets. Guard for set screws.
226. Water closet. Belts guarded.
227. Remove set screws. Fix water closets.
228. Box drive belt.
229. Closet clean. Guard for belt.
230. Clean closets.
231. None.
232. None.
233. Clean closets.
234. Removal of set screws.
235. Water closets. Belts guarded.
236. Removal of set screws.
237. Removal of set screws.
238. Removal of set screws.
239. Remove set screws. Box belts.
240. Removal of set screws.
241. Better water closets.
242. Removal of set-screws.
243. Clean closets. Belts covered.
244. Clean closets.
245. Removal of set-screws.

246. Removal of set-screws. Belts boxed.
247. Removal of set-screws.
248. Removal of set-screws.
249. Removal of set-screws.
250. Removal of set-screws. Clean closets.
251. Clean closets.
252. None. Good.
253. None.
254. Clean closets. Engine guard.
255. None.
256. Clean closets.
257. Decent water closets. Belts and screws covered.
258. Remove set-screw. Cover cog-wheel.
259. None.
260. Clean closets. Removal of set-screw.
261. Clean closet. Removal of screws.
262. Enclose closet, too exposed.
263. Lock for water closet.
264. None.
265. Removal of set-screws. Box belts. Clean closets.
266. Belts covered. Set-screws removed.
267. Guard belts. remove set-screw. Clean closets.
268. Guard for fly-wheels.
270. Clean closets.
271. None.
272. Provide clean closets.
273. Closet to be kept locked.
274. Belt covered.
275. Belt and set-screws covered. Provide stair rail.
277. Fly-wheel and pulleys covered.
278. Clean closets.
279. Clean closets.
280. None.
281. Model institution.
282. Clean closets.
283. None.
284. None.
285. None.
286. Furnish clean closets.
287. Guard pulleys. Clean closets.
288. Decent water closets.
289. Decent water closets.
290. Stair railing. Clean closets.
291. Boiler inspection.
292. Model plant.
293. Guard around fly wheel and motor.
294. Order and cleanliness.
295. None.
296. None.
297. None. See (r) citation.
298. None. Ideal factory.
299. Guards on striker machine.
300. None.
301. None.
302. None.
303. None.
304. Exits and fire escapes from upper floors.
305. None.
306. Water closets be kept clean.
307. General cleaning up.
309. Cleaner closets. Set screws removed.
310. None.
311. Must have fire escapes.

312. None.
313. None.
314. Keep machinery clean.
315. None.
316. None.
317. None.
318. None.
319. None.
320. None.
321. None.
322. None.
323. None.
324. None.
325. Enclose water closet.
326. None.
327. None.
328. None.

### FOOT NOTES.

1. (a) A very objectionable gate, opening in; is very dangerous.
2. (m) A model factory.
3. (n) Not given.
4. (v) 175 ft. air shaft. (h) Hand crushed.
5. (u) No reports. (o) Only fair. (f) Fair.
6. (s) Removal of factory to new building.
8. (d) Dangerous. (g) Found twenty-five children. (o) During season.
9. (f) Ventilation by fan. (s) Stair for fire escape.
10. (c) No water closets provided. (l) Outside ladders.
12. (i) Power rented from nearby factory. (n) Six to twelve as needed.
14. (n) None reported, but ten children were found.
15. (r) Report says none, but two were under fourteen.
19. (c) Found twenty children under fourteen.
20. (c) Found twenty children under fourteen.
21. (c) Not reported. (n) Not in operation.
22. Gasoline engine used exclusively.
23. (c) Found six under fourteen.
24. (c) Found three under fourteen. (w) Water for elevator.
26. (m) Electric power. (c) Found fifteen under fourteen. (f) Finger hurt.
27. (b) Found fifteen under fourteen years.
30. (c) Found ten under fourteen.
31. † Outside of building and dangerous. (c) Found five children under fourteen.
32. (c) Found five under fourteen years.
33. (w) Water closets unfit for use. (c) Found three under fourteen.
34. (c) City inspection.
36. (c) Found twenty-five children under fourteen years. (w) Men should have better water closets.
38. (c) Found four children under fourteen years.
47. (e) Employes not given. (r) Railroad boiler maker.
41. (c) Found three under fourteen years. (e) Requested use of elevator guards.
48. (p) Piece work.
50. (s) Two stairs in every building. (c) Found thirty under fourteen years.
51. (c) Found forty under fourteen years.
52. (c) Found four under fourteen years.
53. (c) Found four children under fourteen years.
54. (c) Found six under fourteen years.
55. (h) Man hurt in eye.
56. (l) Leased power.
58. (v) Ventilation basement abominable.
62. (s) Gate in stair dangerous. (Have information of its removal.)

63. (c) Had a boy under fourteen years for guide.  
 67. (f) Outside stair in lieu of fire escape  
 68. (c) Found two under fourteen years.  
 69. (e) Hand lift. (c) Found two under fourteen years.  
 70. (f) Found outside stairway  
 72. (c) Found two boys under fourteen years.  
 76. (l) Lease power from Electric Light company.  
 77. (c) Found five under fourteen years.  
 79. (n) Not reported.  
 81. (x) Neighboring closet used.  
 83. (c) Found twenty-five under fourteen years.  
 86. (w) Water closet filthy. (c) Boys under 14.  
 88. (c) Found six under fourteen years.  
 89. (c) Found eight boys under fourteen years.  
 90. (x) Neighboring closet used. (s) Forty pounds steam on twelve horse-power engine.  
 92. (c) Found nine under fourteen years.  
 93. (w) Only one closet for twenty-three males and forty females. (c) Found four under fourteen.  
 94. (c) Found four girls under fourteen years.  
 95. (c) Closet kept locked.  
 97. (c) Found two boys under fourteen years.  
 99. (p) Very unsatisfactory. (s) Number not given.  
 100. (c) Complaint made, but found none. (h) Man and boy.  
 101. (c) Found two under fourteen years.  
 109. (f) Ladders in lieu of fire escapes.  
 112. (c) Found two boys under fourteen years.  
 117. (h) Hand crushed in mangle.  
 118. (c) Each building.  
 121. (i) City inspector.  
 122. (a) Arm broken. (i) City inspector.  
 124. (j) City inspector.  
 127. (c) Found ten under fourteen years.  
 128. (c) Found twenty under fourteen years.  
 129. (b) Bridges from building to building. (h) Serious accident, 1899.  
 132. (c) Found twelve under fourteen years.  
 134. (w) Two closets, one clean; one filthy.  
 135. (f) Outside stairs.  
 136. (f) Freight elevator only.  
 139. (s) Sheds. (a) In case of accident all bills paid by employer.  
 140. (h) Loss of finger.  
 149. (i) Own inspection  
 151. (f) Third story opens on sidewalk one side.  
 152. (w) Work elevator.  
 157. (s) Number not given.  
 159. (f) In rear. (e) Two only guarded.  
 165. (f) Freight elevator.  
 166. (f) Freight elevator.  
 170. (n) Own engineers.  
 171. (h) Hand elevator.  
 174. (h) Hand elevator.  
 176. (s) Not stated.  
 181. Not in operation. Canning season closed.  
 186. (s) Second story.  
 187. (s) Stairs, too many to be enumerated.  
 189. (o) When in operation, not yet started.  
 196. (f) Steep hill on one side of building.  
 197. (i) Own inspection.  
 199. (h) Hand elevator.  
 202. (p) Piece work.  
 203. (f) Freight elevator.  
 214. (f) Fire escapes only partially.  
 219. (c) Found three boys under fourteen years.  
 220. (c) Found one boy under fourteen years.

224. (p) New closet being built.  
 227. (c) Found one boy under 14 years. (e) Traction engine.  
 234. (h) Hand elevator.  
 242. (c) Found sixty children under fourteen years.  
 245. (s) Not given (e) not given.  
 246. (w) Finger cut off.  
 250. (f) Freight elevator.  
 251. (f) Freight elevator.  
 252. (f) Freight elevator.  
 254. (i) Boiler inspection not stated.  
 251. (f) Freight elevator.  
 253. (s) Second floor.  
 264. (h) Loss of fingers.  
 265. (c) Found fifty under fourteen years of age.  
 267. (h) Boy's arm broken.  
 268. (n) Number of employees not stated.  
 269. (n) Number of stairs not given.  
 274. (n) Number of stories not given.  
 278. (h) Cuts and bruises.  
 280. (n) Not reported. (h) Cuts and bruises.  
 281. (n) No list, several cuts, sprains and bruises.  
 284. (h) Several cuts and bruises.  
 286. (h) Sprains and falls.  
 287. (h) Cuts, bruises and falls. (n) Not reported  
 290. (s) Except stair railing.  
 291. (i) No inspection of boiler.  
 292. (y) Fine of 10c for cleaning while running.  
 294. (h) Cuts and bruises.  
 297. (r) Refer to co-operative chapter.  
 299. (h) Cuts and bruises.  
 300. (n) Neighboring closet. (i) Inspection annually, cleaning monthly.  
 305. (o) Outdoor closets only.  
 306. (o) Outdoor closet only. (d) Only hand tools used.  
 307. (o) Outdoor closet only.  
 308. (n) Not in active operation. Number not reported.  
 309. (h) Cuts and bruises.  
 310. Outdoor closets only.  
 311. (f) Lack of fire escapes serious; operatives top floor.  
 313. (n) Not reported. Cuts and bruises.  
 314. (h) No report. Cuts and bruises.  
 315. (n) No record cuts and bruises.  
 316. (s) Several stairs. No report.  
 317. (h) Number falls and bruises.  
 318. (n) Not reported.  
 319. (w) Neighboring closet.  
 320. (i) Leased steam.  
 321. (h) Burns and cuts.  
 322. (h) Cuts and bruises.  
 323. (s) Men run several machines endangering life.  
 324. (h) Cut and sprained.  
 325. (\*) Outdoor to exposed. (h) Cut, burns and sprains.

## FACTORY INSPECTION.

In order that the factory inspection may be clearly understood, a general table is given, together with a narrative covering the same establishments, each serving its special pur-

pose. For example, matters occur where a table to contain all necessary information would require double the size of table; hence both the tables and the running narrative are used. Both have the same marginal or serial numbers and are easily identified.

#### FACTORY INSPECTION—NARRATIVE.

1. *Noteworthy feature.* Reading room connected with factory. Magazines and periodicals for use of employes free. Open evenings. A gate in main exit should either open out or be removed. Three stories. No fire-escapes. One hundred and forty-eight employes.

2. A model institution.

3. The best of its kind.

4. Guards near machines to prevent repetition of accidents recommended. A ventilating shaft or stack 175 feet high furnishes pure air for thirty-five employes of this laundry.

5. Everything too crowded for safety.

6. New factory—a model.

7. No water-closet. Thirteen employes.

8. Very primitive fire-escapes. Two hundred and seventy-five employes. Clutches provided for detaching every machine in building. Three set-screws endangering life. Engine and fly-wheel too much exposed.

9. Commendable in every way.

10. No elevator-guards. Very filthy water-closets.

11. No recommendations.

12. No recommendations.

13. Very filthy water-closets.

14. No elevator-guards. One hundred and forty employes.

15. No recommendations.

16. Gates locked during working hours. Thirty males, twenty females employed. Each employe should have keys for the gates in case of fire.

17. No recommendations.

18. No recommendations.

19. One hundred male, 200 females. Employes safety provided for as much as possible.

20. A cluttered up appearance; apparent indifference as to employes safety. One hundred male, one hundred female employes.

21. Not in operation. No actual inspection.

22. Fire-escapes needed. Forty-five male, fifty-five female employes. Three story building.

23. Recommended dust-blowers and ventilating fans for shops. One hundred and twenty-three employes.

24. Twelve male, eighteen female employes. Three story and basement building. No fire-escapes.

25. Elevators unguarded. No fire-escapes. Three story building. Forty-four employes. Objectionable and filthy water-closet, and discourteous proprietors.

26. Elevator unguarded. No fire-escapes. Three story building. Forty employes.

27. No recommendations.

28. Three hundred and fifty employes and utterly inadequate water-closets.

29. Water-closets very filthy.

30. No recommendations. Model factory.

31. Apparent disregard for safety of 125 employes. No elevator guard and refusal to provide same.

32. No recommendations.

33. Insufficient and unclean water-closets.

34. Fifty employes. Four story building. No fire-escapes.

35. Laundry. Scarcely any ventilation.

36. Two hundred and twenty-five males, one hundred and twenty-five females. Water-closets for males very bad. Two dangerous set-screws. Large driving belt unboxed.

37. Better water-closets recommended, also enclosing of driving belt.

38. No recommendations.

39. Poor sanitary arrangements. Driving belt uncovered.

40. Water-closets unfit for use. Driving belt unboxed.

41. Neglect of elevator gates habitual. Bad water closets, but new ones promised.

42. No recommendations.

43. No recommendations.

44. No recommendations.

45. Forty males, seven females. Only one water-closet.

46. Forty males, forty females. Three story building. No fire escapes.

47. Large number employes. Inadequate water-closets.

48. Unventilated water-closets.

49. Unventilated water-closets.

50. Two hundred and fifty employes. Inadequate water-closets. Belt on big drive wheel uncovered.

51. Seven hundred males, fifty females. Automatic gates needed on eight elevators. Water-closets should be cleaned daily.

52. Elevator opening unguarded. Fly wheel unguarded. Poor water-closets.

53. Twenty operatives insured against accident to the amount of \$10,000 at employers expense, covering all the employes. Three stories. No elevator guards. Insufficient water-closets.

54. Fly wheel in engine room unguarded. No ventilation of water-closets.

55. Fly wheel in engine room unguarded. Filthy water-closets.

56. No recommendations.

57. Indescribable filthy water-closets.

58. Engine room a death trap. No reasonable exit nor ventilation. Water-closet very offensive.

59. Lack of fire escapes or fire ladders.

60. No recommendations.

61. A model laundry.

62. A locked gate in turn of stairway endangering fifty-eight males and eighty females in three story building. Without fire escapes. (Information at hand that location of gate has been changed; bettering the situation somewhat.)

63. Three story and basement. No fire escapes. Sixteen employes. Unclean water-closets.
64. Unsatisfactory water-closets.
65. Access to water-closet almost impossible, through defective drainage.
66. Drive-belt exposed, endangering life.
67. No recommendations.
68. No proper seat at water-closet. Very filthy.
69. Exposed belts and dynamos. Unsatisfactory water-closets.
70. Water-closets very filthy.
71. Absence of fire-escapes or ladders. Eleven employes. A two-story mill.
72. Engine entirely unguarded.
73. No recommendations.
74. Twenty-five males, forty females. Four stories. No fire-escapes. A lot of machinery close together, endangering life and limb of operatives.
75. Flywheel unguarded. Water-closets filthy.
76. Unsatisfactory water-closets.
77. Sixty males. Six stories. No fire-escapes. Belts and shafts unguarded everywhere.
78. Footguard at main engine needed, and guard for electrical generator.
79. No recommendations.
80. No recommendations.
81. No recommendations.
82. Drive-belts unboxed.
83. Several hundred male employes. Neglected water-closets and defective urinals.
84. No recommendations.
85. Stereotyping boiler objectionable. Filthy water-closet. (Subsequent investigation shows that proper remedies have been applied.)
86. Flywheel unguarded. One of the filthiest water-closets in the state. Twenty male employes.
87. All machinery unguarded. Water-closets very objectionable.
88. No recommendations.
89. Number of dangerous set-screws, and machinery in operation near narrow passageway.
90. Unguarded dangerous machinery.
91. Engine unguarded. Water-closets shockingly primitive.
92. Dangerous machinery unguarded. Very unsatisfactory water-closets.
93. Twenty-three males, forty females at time of inspection. Only one water-closet in use at that time. Most flagrant disregard of the decencies disclosed by the inspection. Subsequent inspection shows second closet put in use, though it is not evident that the different sexes are debarred from using them indiscriminately.
94. Water-closet has no ventilation.
95. Ten male, five female employes. Only one water-closet. No fire-escapes. Three stories.
96. No recommendations.
97. Slat door for water-closet needed for ventilation.
98. Water-closet defective.

99. Water-closets offensive. Twenty male, ninety female employes. Useless makeshifts as fire-escapes.
100. One hundred and seventy-five male, fifty female employes. Four stories. No fire-escapes. One man and boy killed by set screws on shafting during year preceding inspection. Apparent disregard of welfare of employes. Offensive closets. Ventilation bad throughout.
101. Absence of elevator guards. Filthy water-closet.
102. No water-closet for self or tenants. Five people employed. Belts unboxed.
103. Tenants of No. 102. Five people employed. No water-closet.
104. A very dangerous clutch exposed. Belts unboxed in numerous places.
105. Unguarded belts and shafting everywhere. Abominable water-closets.
106. Unguarded belts and shafting generally, with bad water-closet.
107. No water-closet. Seven male, sixteen female employes.
108. Unsatisfactory water-closet.
109. Absence of elevator guards. Absence of fire-escapes. Three stories. Eighteen male employes. Belts and set screws exposed, endangering operators. Disgraceful water-closets.
110. Unguarded belts and shafting. Unsatisfactory water-closets.
111. Neglected water-closets.
112. Many dangerous set screws. Absence of water-closet.
113. Five male, three female employes. Only one closet.
114. Large fly-wheel unguarded. Males and females employed. Only one water-closet.
115. Large wheel unguarded.
116. Belts and set-screws exposed in numerous places.
117. Fly-wheel unguarded. Six males, sixteen females employed. Only one water-closet, and it unscreened and unlocked.
118. Not in actual operation.
119. Very poor water-closets for R. R. shops.
120. Large water-closets without doors, exposed to inclemencies of the weather.
121. No recommendations. A fine plant.
122. Water-closets very bad.
123. Water-closets very filthy.
124. A great deal of dangerous machinery unguarded.
125. Very satisfactory conditions.
126. Unsatisfactory water-closets. All belts unguarded.
127. Four stories. Ten males, 140 females. No fire-escapes. Only one water-closet in establishment.
128. Fourteen males, 150 females. Five stories. Only means of escape in case of fire, an outside stairway.
129. Engine unguarded and water-closets unsatisfactory, no care given them.
130. Water-closets in uncleanly condition.
131. Two stories. Forty-six employes. No fire-escapes.
132. Thirty males, thirty females. Four stories. No fire-escapes.

133. Twelve employees. Three stories. No fire-escapes. Fly-wheel unguarded.

134. Two closets in establishment. Fifty-five employees. Three stories. No fire-escapes. One of closets very clean, while the other very filthy, showing that some people are cleanly, while others are filthy.

135. Closet unlocked and unclean.

136. Dangerous machinery. (Rattler) unguarded. Closets for 110 employees needs disinfection. Inspector informed by proprietor that he had not seen this closet for a year and did not know its condition.

137. Fly-wheel in basement unguarded.

138. Closets ventilated, but not clean.

139. Moving into new model factory. When an accident occurs among the 150 employees, the injured is taken to hospital or home as he elects, all expenses paid by employers. Salaries or wages paid in full, until complete recovery. (Law does not permit naming of establishment.)

140. No recommendations.

141. Thirty-four employees. Five stories. No fire escape.

142. Fifty employees. Five stories. No fire escapes. Bad water closets.

143. No recommendations.

144. Floor in water closet reeking with filth. Twenty employees. Cone pulleys unguarded.

145. Closets for 200 employees very unsatisfactory.

146. Forty employees. Bad water closets.

147. Fifty employees. Very bad water closets.

148. Engine fly wheel dangerously exposed.

149. No recommendations.

150. No recommendations.

151. Guard needed at dry kiln in soap factory.

152. Closet filthy.

153. Closets unclean.

154. Thirty-four employees. Four stories. No fire escapes.

155. Numerous cogwheels unguarded in bakery.

156. Lack of fire escapes. Six employees. Two stories.

157. One of the elevator openings absolutely unguarded.

158. Dangerous cog wheel unguarded in bakery.

159. One of three elevators unguarded. Three very dangerous set screws.

160. No recommendations.

161. Abominable water closets.

162. Number of dangerous set screws.

163. No recommendations.

164. No recommendations.

165. Dangerous cog wheels uncovered.

166. Three hundred and fifty employees. Library, bath rooms and gymnasium provided for employees free of charge. A man to obtain employment must become a member of an accident association, conducted by the men and sustained by them, under the supervision of the employers.

167. No recommendations.

168. Belts and set screws exposed everywhere.

169. No recommendations.

170. Number of dangerous set screws. Railroad shops. Their removal promised.

171. No recommendations.

172. No recommendations.

173. Much machinery unguarded. Fifty employees. Very bad water-closets. Number of employees refuse to use the conveniences provided on account of filth, delaying natural necessities, thereby endangering health, and unable to render satisfactory service. Secretary of State Board of Health, Dr. J. F. Kennedy, has favored this bureau with an opinion based on what inspector stated regarding this particular case. (Dr. Kennedy's letter appears elsewhere in this report.)

174. A great number of dangerous set-screws.

175. Seventy-five employees. Machinery crowded too close for safety and comfort.

176. No recommendations.

177. A dangerous lathe, and unclean closets.

178. Governor-wheel unprotected.

179. Thirty-two employees. Fourth story. No fire-escape. Claimed that large front stair is sufficient.

180. No recommendations.

181. No recommendations.

182. No elevator-guards, and dirty closets.

183. Belts unguarded, and number of dangerous set-screws.

184. Very bad closets.

185. Bad water closets.

186. Dangerous set-screws and filthy water-closets.

187. Three hundred and fifty employees. Much dangerous machinery. Manager evinced a disposition to lessen danger as much as possible.

188. Bad closets. Many dangerous set-screws.

189. No recommendations.

190. No recommendations.

191. No recommendations.

192. Three stories. Nineteen employees. No fire-escape. Filthy closets.

193. Number of set-screws. Filthy, unventilated closets.

194. Flywheel exposed. Elevator unguarded.

195. No recommendations.

196. Thirty males, twenty females. Both water-closets very filthy.

197. No recommendations.

198. Engine shaft dangerously exposed, also a number of set-screws.

199. Number of set screws are in evidence.

200. No recommendations.

201. No recommendations. One hundred and forty-two employees in three story building. Should have fire escapes provided.

202. Bad and insufficient closets for use of twenty-five employees.

203. No recommendations.

204. Bad closets and number of set screws.

205. A cleaning up generally. A filthy place.

206. No recommendations.

207. No recommendations.

- 208. Five males, seven females. Only one closet, and it unlocked.
- 209. Dirty closets. Dangerous drive belts, and set screws.
- 210. Four male, four female employees. Only one water-closet, and it very dirty.
- 211. Sixty males, twenty females. A filthy place. A disease breeding institution.
- 212. Filthy water-closets.
- 213. No recommendations.
- 214. Unsatisfactory water-closets for seventy males, and 115 females. Dangerous machinery unguarded throughout the establishment.
- 215. Bad water closets. Dangerous set screws.
- 216. No recommendations.
- 217. A great deal of dangerous machinery.
- 218. Water-closets bad. Considerable dangerous machinery.
- 219. Many dangerous set screws.
- 220. Number of dangerous set screws.
- 221. Too many set screws for safety of employees.
- 222. No recommendations.
- 223. No recommendations.
- 224. Awful water-closets. (They are building new ones.)
- 225. Bad closets. Many dangerous set screws.
- 226. Unguarded drive belts. Filthy closets, and no disposition to remedy same.
- 227. Dangerous set screws.
- 228. Drive belt a menace to employees.
- 229. Terrible water-closets. Belts unguarded.
- 230. Bad closets.
- 231. No recommendations.
- 232. No recommendations.
- 233. Poor water-closets.
- 234. Many dangerous set screws.
- 235. No closets. Belts unguarded.
- 236. Too many set screws.
- 237. A number of set screws.
- 238. Many dangerous set screws.
- 239. Number of set screws and belts, exposed.
- 240. Large number of set screws.
- 241. Poor water closets.
- 242. An appalling number of set screws.
- 243. Belts exposed; closets filthy.
- 244. Bad water closets.
- 245. Many set screws.
- 246. Belts and set screws exposed.
- 247. A lot of set screws a perpetual menace here.
- 248. Set screws unguarded.
- 249. Set screws.
- 250. Bad closets; many set screws. (No disposition to correct the evils complained of.)
- 251. Bad closets.
- 252. No recommendations; a fine plant: forty-eight employees.

- 253. No recommendations.
- 254. Engine unguarded; closets bad.
- 255. No recommendation.
- 256. Bad and insufficient closet for nineteen employees.
- 257. Bad water closets; belts and set screws exposed.
- 258. Cogwheels and set screws exposed; fifty employees.
- 259. No recommendations.
- 260. Bad set screws; no water closet; eighteen employees.
- 261. Bad water closets; sixty employees; number of set screws.
- 262. Water closet for 350 men absolutely exposed to the elements; unworthy of railroad shops; vigorous complaint by employees.
- 263. Three males and forty females; only one closet; lock for closet should be provided.
- 264. No recommendation.
- 265. Belts unboxed and dangerous; closets bad, especially when among 140 employees inspector finds about fifty under fourteen years of age.
- 266. Belts and set-screws exposed.
- 267. Bad closets. Belts and set-screws exposed.
- 268. Fly-wheel unguarded.
- 269. State institution.
- 270. Very filthy closets.
- 271. No recommendations.
- 272. Better sanitary arrangements.
- 273. Four males, four females. A laundry. Only one closet. Lock and key needed.
- 274. Drive-belt exposed.
- 275. Belts and set-screws, endangering fifteen employees.
- 276. No recommendations.
- 277. Fly-wheel and pulleys exposed.
- 278. Closets defective. Three hundred and sixty employees.
- 279. Bad closets for a newspaper.
- 280. No recommendations.
- 281. Model in every particular. Railroad shops.
- 282. No recommendations.
- 283. No recommendations.
- 284. No recommendations.
- 285. No recommendations.
- 286. Twelve employees. No water-closets.
- 287. Considerable machinery unguarded. Unclean closets. Twenty-two employees.
- 288. Bakery. Twenty-two employees. Defective water-closets.
- 289. One hundred men. Offensive water-closets.
- 290. Sixty-two employees. Three stories. Eight stairways. No railings. Water-closets bad. Food products prepared here.
- 291. Thirteen employees. No boiler inspection.
- 292. Rule of a 10-cent fine for cleaning machinery while in motion, strictly enforced. Model button plant.
- 293. Fly-wheel and motor unguarded.
- 294. Disorder prevalent, endangering 248 employees. Employer doing the best possible under the circumstances.

- 295. No recommendations.
- 296. No recommendations.
- 297. A purely co-operative affair. Twelve men. (See co-operative.)
- 298. No recommendations. Ideal factory.
- 299. Some machinery unguarded.
- 300. No recommendations.
- 301. No recommendations.
- 302. No recommendations.
- 303. No recommendations.
- 304. Thirty-two employees. Three stories. Insufficient exits in case of fire.
- 305. No recommendations.
- 306. An aggravated case of neglected of water-closets.
- 307. Thirty-six employees. Too cluttered up for safety.
- 308. No recommendations.
- 309. A number of set screws.
- 310. No recommendations.
- 311. A model factory, except that fire-escapes should be provided for twenty-five employees working on fourth floor.
- 312. No recommendations.
- 313. Railroad shops. Water-closets unprotected from the elements.
- 314. No recommendations.
- 315. No recommendations.
- 316. No recommendations.
- 317. No recommendations.
- 318. No recommendations.
- 319. No recommendations.
- 320. No recommendations.
- 321. No water-closets provided. Eleven employees.
- 322. Employees required to operate more than one machine, which is not conducive to safety.
- 323. No recommendations.
- 324. Closet out doors, too much exposed.
- 325. No recommendations.
- 326. Water-closets not satisfactory.
- 327. Water-closets not clean.
- 328. Railroad shops. Everything the best that can be had. Wood planing machine need guard for belt.

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## MANUFACTURING INDUSTRIES OF IOWA

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## MANUFACTURES IN IOWA BY

Running number.	MANUFACTURING AND MECHANICAL INDUSTRIES.	Number of establishments.
1	ALL INDUSTRIES.....	14819
2	Agricultural implements.....	24
3	Awnings, tents and sails.....	22
4	Axle grease.....	24
5	Baking and yeast powders.....	3
6	Bicycle and tricycle repairing.....	4
7	Blacksmithing and wheelwrighting.....	130
8	Bookbinding and blank book making.....	2408
9	Boots and shoes, custom work and repairing.....	16
10	Boots and shoes, factory product.....	475
11	Bottling.....	7
12	Boxes, cigar.....	10
13	Boxes, fancy and paper.....	9
14	Boxes, wooden packing.....	7
15	Brass castings and brass finishing.....	10
16	Bread and other bakery products.....	3
17	Brick and tile.....	194
18	Bridges.....	339
19	Brooms and brushes.....	13
20	Buttons.....	71
21	Carpentering.....	53
22	Carpets, rag.....	740
23	Carriage and wagon materials.....	75
24	Carrriages and wagons.....	14
25	Cars and general shop construction and repairs by steam railroad companies.....	211
26	Cars and general shop construction and repairs by street railroad companies.....	58
27	Cheese, butter and condensed milk, factory product.....	3
28	China decorating.....	907
29	Clothing, mens', custom work and repairing.....	3
30	Clothing, mens', factory product.....	500
31	Clothing, womens', dressmaking.....	18
32	Clothing, womens', factory product.....	291
33	Coffee and spice, roasting and grinding.....	7
34	Coffins, burial cases and undertakers' goods.....	12
35	Confectionery.....	5
36	Cooperage.....	64
37	Druggists' preparations, not including prescriptions.....	71
38	Dyeing and cleaning.....	6
39	Electrical construction and repairs.....	31
40	Fancy articles, not elsewhere specified.....	12
41	Flavoring extracts.....	3
42	Flouring and grist mill products.....	4
43	Food preparations.....	702
44	Foundry and machine shop products.....	16
45	Fruits and vegetables, canning and preserving.....	109
46	Fur goods.....	26
47	Furnishing goods, mens'.....	14
48	Furniture, cabinet-making, repairing and upholstering.....	3
49	Furniture, factory product.....	103
50	Furs, dressed.....	26
51	Gas, illuminating and heating.....	6
52	Gas machines and meters.....	26
53	Gloves and mittens.....	6

## SPECIFIED INDUSTRIES—1900.

RUNNING NUMBER.	CAPITAL.					Proprietors and firm members.
	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	
1.....	\$ 102,733, 103	\$ 11,701, 330	\$ 18,554, 185	\$ 26, 150, 011	\$ 46, 327, 577	16619
2.....	1,878, 090	71, 940	214, 367	195, 067	1, 376, 717	16
3.....	59, 715	11, 500	6, 550	7, 735	33, 930	23
4.....	66, 349	3, 100	10, 800	6, 200	46, 283	2
5.....	10, 500	100	500	1, 500	8, 400	1
6.....	125, 070	11, 350	10, 485	41, 470	53, 865	149
7.....	2, 774, 287	495, 115	688, 883	679, 994	920, 102	2745
8.....	39, 700	.....	.....	20, 295	19, 405	19
9.....	105, 886	31, 745	50, 664	53, 643	50, 834	492
10.....	506, 757	12, 100	57, 840	86, 471	350, 346	7
11.....	22, 097	200	350	10, 960	10, 587	13
12.....	56, 953	1, 050	4, 000	9, 167	42, 136	7
13.....	31, 644	.....	.....	16, 567	14, 977	5
14.....	378, 550	.....	48, 927	71, 024	241, 662	15
15.....	367, 310	20, 000	30, 000	99, 010	217, 700	4
16.....	1, 301, 062	142, 914	227, 300	549, 936	381, 752	217
17.....	3, 076, 355	574, 097	1, 036, 217	727, 441	738, 600	441
18.....	127, 520	25, 000	13, 400	26, 120	63, 000	17
19.....	101, 577	17, 316	34, 495	19, 140	90, 056	83
20.....	324, 315	15, 585	24, 991	111, 727	171, 012	61
21.....	1, 172, 121	130, 608	144, 597	224, 879	672, 040	925
22.....	50, 355	11, 305	13, 075	17, 507	7, 508	83
23.....	144, 551	16, 900	41, 800	23, 175	62, 676	14
24.....	4, 087, 400	338, 147	451, 661	504, 239	2, 793, 353	270
25.....	3, 277, 617	232, 825	1, 365, 929	816, 126	862, 737	.....
26.....	62, 825	11, 300	26, 500	15, 300	9, 725	.....
27.....	3, 459, 017	145, 198	1, 095, 429	1, 499, 183	719, 207	565
28.....	1, 425	25	200	175	1, 025	3
29.....	727, 034	69, 746	89, 160	76, 263	491, 865	581
30.....	660, 514	10, 000	30, 000	74, 545	545, 999	8
31.....	120, 200	16, 915	34, 770	26, 724	41, 791	337
32.....	23, 899	.....	.....	4, 300	19, 599	15
33.....	403, 313	9, 100	20, 610	40, 497	317, 106	.....
34.....	314, 286	19, 700	51, 070	21, 576	221, 040	3
35.....	577, 197	34, 590	65, 535	186, 702	290, 310	70
36.....	326, 434	31, 080	59, 745	60, 186	175, 423	80
37.....	44, 710	2, 000	8, 200	4, 110	30, 400	5
38.....	56, 080	10, 250	19, 600	17, 175	9, 155	39
39.....	46, 485	.....	800	5, 965	33, 470	1
40.....	1, 940	.....	.....	40	1, 900	.....
41.....	6, 050	.....	.....	750	5, 300	4
42.....	6, 421, 078	762, 946	1, 481, 670	2, 379, 941	1, 796, 521	866
43.....	2, 501, 521	164, 100	702, 500	840, 071	794, 850	21
44.....	3, 732, 774	310, 487	569, 516	1, 027, 782	1, 824, 986	216
45.....	1, 027, 321	37, 900	190, 900	311, 869	486, 652	15
46.....	52, 955	2, 500	5, 000	3, 955	41, 500	17
47.....	25, 162	.....	.....	2, 741	22, 421	1
48.....	170, 742	20, 575	34, 700	22, 433	93, 034	124
49.....	1, 021, 658	86, 010	161, 180	179, 002	598, 466	11
50.....	15, 250	325	2, 925	8, 100	3, 900	8
51.....	4, 120, 984	241, 338	258, 452	3, 325, 820	304, 374	.....
52.....	29, 700	100	3, 200	3, 500	22, 900	8
53.....	277, 008	22, 000	35, 000	22, 500	197, 508	17

## MANUFACTURES IN IOWA BY SPECIFIED

Running number.	MANUFACTURING AND MECHANICAL INDUSTRIES.	Number of establishments.
54	Grease and tallow.....	8
55	Hair work.....	7
56	Hardware.....	5
57	Ice, artificial.....	3
58	Iron work, architectural and ornamental.....	12
59	Jewelry.....	3
60	Kindling wood.....	28
61	Lime and cement.....	21
62	Liquors, malt.....	6
63	Liquors, vinous.....	41
64	Lock and gun smithing.....	35
65	Looking-glass and picture frames.....	204
66	Lumber and timber products.....	65
67	Lumber, planing mill products, including sash, doors and blinds.....	39
68	Marble and stone work.....	170
69	Masonry, brick and stone.....	7
70	Mattresses and spring beds.....	926
71	Millinery, custom work.....	73
72	Mineral and soda waters.....	4
73	Models and patterns.....	139
74	Monuments and tombstones.....	6
75	Musical instruments and materials, not specified.....	4
76	Oil, linseed.....	138
77	Painting, house, sign, etc.....	6
78	Paints.....	4
79	Paper and wood pulp.....	28
80	Paper hanging.....	41
81	Patent medicines and compounds.....	38
82	Paving and paving materials.....	6
83	Perfumery and cosmetics.....	100
84	Photography.....	15
85	Pickles, preserves and sauces.....	58
86	Plastering and stucco work.....	196
87	Plumbing and gas and steam fitting.....	17
88	Pottery terra cotta and fire clay products.....	115
89	Printing and publishing, book and job.....	910
90	Printing and publishing, newspapers and periodicals.....	3
91	Roofing and roofing materials.....	982
92	Rubber and elastic goods.....	4
93	Saddlery and harness.....	7
94	Sausage.....	10
95	Scutes and balances.....	3
96	Sewing machine repairing.....	4
97	Ship and boat building, wooden.....	7
98	Shirts.....	10
99	Show cases.....	3
100	Slaughtering and meat packing, wholesale.....	20
101	Slaughtering, wholesale, not including meat packing.....	7
102	Soap and candles.....	12
103	Starch.....	4
104	Steam fittings and heating apparatus.....	4
105	Sugar and molasses, refining.....	33
106	Tinsmithing, coppersmithing and sheet-iron working.....	624
107	Tobacco, cigars and cigarettes.....	408
108	Tools, not elsewhere specified.....	4
109	Trunks and valises.....	7
110	Upholstering materials.....	7
111	Vinegar and cider.....	8
112	Washing machines and clothes wringers.....	3
113	Watch, clock and jewelry repairing.....	482
114	Windmills.....	8
115	Window shades.....	3
116	Wire-work, including wire rope and cable.....	25
117	Wood, turned and carved.....	12
118	Woolen goods.....	12
119	All other industries.....	73

## INDUSTRIES—1900—CONTINUED.

RUNNING NUMBER.	CAPITAL.					Proprietors and firm members.
	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	
54.....	22,392	4,070	5,650	6,250	6,422	10
55.....	9,450	1,000	2,500	345	5,200	9
56.....	249,130	18,149	39,470	73,204	118,256	4
57.....	105,300	23,000	20,800	88,000	24,500	3
58.....	372,305	26,200	37,108	83,699	225,298	10
59.....	12,275	1,100	2,050	3,250	5,875	7
60.....	22,000	6,314	3,874	5,502	6,250	2
61.....	663,530	89,100	150,345	201,795	153,020	27
62.....	2,420,515	215,005	973,110	417,677	814,723	15
63.....	2,100	160	910	715	315	6
64.....	31,173	4,275	3,315	16,375	7,208	44
65.....	34,150	2,200	3,300	5,450	23,200	42
66.....	8,702,219	1,978,335	273,966	813,282	5,690,636	327
67.....	3,570,305	232,177	395,621	494,335	2,454,172	60
68.....	370,479	60,445	57,900	103,977	148,177	47
69.....	624,713	38,162	23,287	130,689	438,635	210
70.....	54,531	5,700	3,000	8,522	37,309	5
71.....	1,235,043	145,840	233,325	55,535	800,343	1127
72.....	398,447	63,155	57,615	132,470	145,177	83
73.....	11,720	1,060	3,070	5,040	1,950	6
74.....	637,587	53,475	67,275	35,942	480,895	183
75.....	15,125	.....	.....	5,950	9,175	8
76.....	647,628	.....	57,000	102,000	488,628	.....
77.....	381,422	38,495	29,295	54,477	165,135	413
78.....	207,485	7,242	22,550	30,813	150,880	9
79.....	182,045	20,000	10,000	124,400	27,645	2
80.....	70,190	6,760	5,990	4,525	58,921	28
81.....	512,019	20,416	5,400	30,780	455,354	45
82.....	146,082	20,235	5,472	34,886	85,499	51
83.....	79,350	2,000	3,500	6,850	68,050	11
84.....	490,859	63,735	115,100	207,247	104,777	441
85.....	471,171	48,726	117,701	87,169	217,575	10
86.....	24,084	1,025	1,000	4,918	10,541	73
87.....	575,937	29,300	38,750	86,627	421,260	250
88.....	301,258	85,550	111,507	71,100	93,041	17
89.....	976,341	29,300	100,214	513,812	333,015	121
90.....	4,703,049	239,560	495,976	2,451,255	1,000,258	1083
91.....	92,071	12,845	10,250	12,735	50,201	34
92.....	2,430	.....	.....	684	1,752	2
93.....	2,977,146	294,838	496,398	216,350	1,969,560	1007
94.....	18,300	5,000	6,000	2,600	4,100	6
95.....	65,492	2,100	3,400	15,500	44,992	4
96.....	1,616	.....	.....	677	939	6
97.....	28,995	8,400	5,025	6,200	8,771	9
98.....	10,300	.....	.....	3,750	6,550	7
99.....	4,900	.....	.....	1,700	3,200	4
100.....	6,264,578	151,750	1,198,153	499,375	4,415,300	13
101.....	86,775	26,300	33,900	15,700	10,875	6
102.....	317,410	25,900	41,650	61,167	188,693	14
103.....	700,004	30,000	225,000	205,234	239,830	.....
104.....	84,317	4,500	9,000	23,000	47,817	5
105.....	107,582	12,050	29,130	23,230	43,172	40
106.....	1,489,276	191,977	312,378	308,884	670,037	783
107.....	1,264,097	52,100	97,437	65,020	1,079,474	458
108.....	154,365	5,000	17,600	24,300	107,465	4
109.....	30,340	6,000	1,950	3,190	10,500	7
110.....	691,505	1,900	9,128	38,200	28,697	2
111.....	126,957	14,905	37,670	40,788	33,594	4
112.....	19,500	1,000	1,300	5,200	12,000	5
113.....	531,603	69,410	101,811	158,278	202,074	492
114.....	161,104	16,800	12,089	13,843	117,772	7
115.....	3,150	500	500	250	1,900	2
116.....	186,510	6,800	16,525	76,397	86,198	34
117.....	47,000	3,600	6,800	14,475	28,125	21
118.....	494,074	24,990	67,850	143,335	257,884	11
119.....	11,509,227	2,806,907	2,091,102	3,074,213	2,577,005	78

## MANUFACTURES IN IOWA BY SPECIFIED

Running number.	MANUFACTURING AND MECHANICAL INDUSTRIES.	Salaried officials, clerks, etc.	
		No.	Salaries.
1	ALL INDUSTRIES.....	5664	\$ 4,486,117
2	Agricultural implements.....	154	123,472
3	Awnings, tents and sails.....	15	5,159
4	Axle grease.....	17	15,534
5	Baking and yeast powders.....	8	4,038
6	Bicycle and tricycle repairing.....	2	1,070
7	Blacksmithing and wheelwrighting.....	6	2,230
8	Bookbinding and blank book making.....	17	14,380
9	Boots and shoes, custom work and repairing.....	40	35,832
10	Boots and shoes, factory product.....	8	2,595
11	Bottling.....	4	4,180
12	Boxes, clear.....	15	14,240
13	Boxes, fancy and paper.....	18	12,010
14	Boxes, wooden packing.....	171	112,344
15	Brass castings and brass finishing.....	94	65,068
16	Bread and other bakery products.....	2	2,200
17	Brick and tile.....	17	14,380
18	Bridges.....	42	26,366
19	Brooms and brushes.....	39	16,997
20	Buttons.....	3	2,550
21	Carpentering.....	23	7,995
22	Carpets, rag.....	140	112,704
23	Carriage and wagon materials.....	278	249,948
24	Carriages and wagons.....	6	8,400
25	Cars and general shop construction and repairs by steam railroad companies.....	413	81,425
26	Cars and general shop construction and repairs by street railroad companies.....	33	25,464
27	Cheese, butter and condensed milk, factory product.....	138	101,818
28	China decorating.....	3	2,145
29	Clothing, mens', custom work and repairing.....	10	3,520
30	Clothing, mens', factory product.....	64	59,474
31	Clothing, womens', dressmaking.....	27	27,238
32	Clothing, womens', factory product.....	111	91,612
33	Coffee and spice, roasting and grinding.....	12	8,457
34	Coffins, burial cases and undertakers' goods.....	7	6,060
35	Confectionery.....	12	6,216
36	Cooperage.....	9	6,520
37	Druggists' preparations, not including prescriptions.....	13	6,980
38	Dyeing and cleaning.....	210	160,476
39	Electrical construction and repairs.....	54	49,510
40	Fancy articles, not elsewhere specified.....	221	204,969
41	Flavoring extracts.....	7	27,265
42	Flouring and grist mill products.....	2	930
43	Food preparations.....	10	7,020
44	Foundry and machine shop products.....	8	3,870
45	Fruits and vegetables, canning and preserving.....	105	84,676
46	Fur goods.....	2	930
47	Furnishing goods, mens'.....	10	7,020
48	Furniture, cabinet-making, repairing and upholstering.....	8	3,870
49	Furniture, factory product.....	105	84,676
50	Furs, dressed.....	2	930
51	Gas illuminating and heating.....	98	70,120
52	Gas machines and meters.....	6	4,750
53	Gloves and mittens.....	43	31,198

## INDUSTRIES—1900—CONTINUED.

RUNNING NUMBER.	AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.							
	Total.		Men, 16 years and over.		Women, 16 years and over.		Children, Under 16 years.	
	Av. No.	Wages.	Av. No.	Wages.	Av. No.	Wages.	Av. No.	Wages.
1	58553	\$ 23,931,680	48417	\$ 21,893,983	8248	\$1,766,586	1888	\$271,111
2	644	243,489	641	242,568	23	421	2	500
3	45	12,519	22	7,242	23	5,277	.....	.....
4	20	12,475	20	12,475	.....	.....	.....	.....
5	11	3,547	7	2,440	4	1,107	.....	.....
6	107	42,745	103	42,192	.....	.....	45	551
7	1177	503,236	1162	501,317	.....	.....	15	1,919
8	59	15,909	21	9,706	25	5,529	4	611
9	144	61,727	144	61,727	.....	.....	.....	.....
10	566	191,783	272	115,659	227	65,557	67	10,507
11	32	9,589	32	9,589	.....	.....	.....	.....
12	76	20,485	24	9,208	46	10,347	6	930
13	94	19,822	15	7,150	76	12,272	3	400
14	363	116,167	303	106,907	20	2,200	40	7,000
15	204	66,197	177	62,147	.....	.....	27	4,050
16	846	331,324	564	275,061	257	49,969	25	6,294
17	1986	768,860	1942	761,368	1	360	43	7,132
18	125	65,260	125	65,260	.....	.....	.....	.....
19	240	70,323	171	62,951	43	9,201	26	4,171
20	1402	458,086	887	361,062	441	80,550	74	10,474
21	2992	1,423,132	2987	1,422,031	2	635	3	466
22	77	22,651	47	17,153	22	4,585	8	913
23	127	45,388	120	43,682	7	1,706	.....	.....
24	1694	713,901	1655	704,689	32	7,452	5	1,760
25	5497	2,948,947	5488	2,946,013	4	1,284	5	1,650
26	85	51,207	85	51,207	.....	.....	.....	.....
27	1133	588,653	1099	582,144	22	4,951	12	1,558
28	1303	568,041	1036	497,380	261	68,689	12	1,672
29	1340	303,286	147	66,182	1178	235,304	15	1,800
30	775	127,451	21	9,700	753	117,055	1	96
31	65	9,706	4	2,466	61	7,240	.....	.....
32	80	31,270	46	23,405	31	7,709	1	150
33	175	73,663	149	66,811	26	6,212	.....	.....
34	559	145,489	249	95,637	307	49,273	3	810
35	449	165,924	421	162,814	1	250	18	2,850
36	140	3,556	7	2,880	3	676	.....	.....
37	64	24,740	43	19,363	19	5,035	2	336
38	41	19,575	41	19,575	.....	.....	.....	.....
39	41	7,700	7	5,000	34	2,700	.....	.....
40	7	1,610	1	290	6	1,320	.....	.....
41	1285	526,479	1224	512,110	49	13,570	12	790
42	60	209,031	366	161,908	268	41,001	35	4,122
43	2372	1,088,312	2296	1,077,040	14	2,130	62	9,142
44	699	184,710	321	114,630	266	54,575	112	15,505
45	65	23,225	0	6,496	56	10,729	.....	.....
46	33	7,119	4	1,356	29	5,763	.....	.....
47	48	49,242	23	47,998	4	1,078	1	166
48	850	292,080	706	274,826	24	6,399	60	10,815
49	14	7,640	11	6,588	3	1,052	.....	.....
50	226	118,307	225	118,151	.....	.....	.....	.....
51	11	5,100	11	5,100	.....	.....	.....	.....
52	174	56,958	50	29,310	114	26,948	10	700

## MANUFACTURES IN IOWA BY SPECIFIED

Running number.	MANUFACTURING AND MECHANICAL INDUSTRIES.	Salaried officials, clerks, etc.	
		No.	Salaries.
54	Grease and tallow	5	1,530
55	Hair work	27	24,561
56	Hardware	10	1,055
57	Ice, artificial	25	22,106
58	Iron work, architectural and ornamental	2	1,150
59	Jewelry	4	3,000
60	Kindling wood	38	26,588
61	Lime and cement	58	84,136
62	Liquors, malt		
63	Liquors, vinous		
64	Lock and gun smithing	6	2,715
65	Looking-glass and picture frames	145	173,768
66	Lumber and timber products	187	180,435
67	Lumber, planing mill products, including sash, doors and blinds	11	7,700
68	Marble and stone work	29	24,582
69	Masonry, brick and stone	17	10,972
70	Mattresses and spring beds	90	26,617
71	Millinery, custom work	34	25,006
72	Mineral and soda waters	3	2,700
73	Models and patterns	71	39,480
74	Monuments and tombstones	3	150
75	Musical instruments and materials, not specified	24	42,666
76	Oil, linseed	33	18,055
77	Painting, house, sign, etc.	31	23,480
78	Paints	11	11,770
79	Paper and wood pulp	17	7,641
80	Paper bags	206	390,531
81	Patent medicines and compounds	9	4,400
82	Paving and paving materials	69	31,968
83	Perfumery and cosmetics	10	3,041
84	Photography	45	47,665
85	Pickles, preserves and sauces	3	1,810
86	Plastering and stucco work	40	24,992
87	Plumbing and gas and steam fitting	13	13,359
88	Pottery, terra cotta and fire clay products	141	103,761
89	Printing and publishing, book and job	523	398,965
90	Printing and publishing, newspapers and periodicals	6	3,010
91	Roofing and roofing materials	1	520
92	Rubber and elastic goods	115	56,954
93	Saddlery and harness		
94	Sausage		
95	Scales and balances		
96	Sewing machine repairing		
97	Ship and boat building, wooden	7	4,700
98	Shirts	1	200
99	Show cases	190	190,056
100	Slaughtering and meat packing, wholesale	3	1,320
101	Slaughtering, wholesale, not including meat packing	33	39,072
102	Soap and candles	35	37,842
103	Starch	10	8,840
104	Steam fittings and heating apparatus	17	13,400
105	Sugar and molasses, refining	46	32,580
106	Tinsmithing, coppersmithing and sheet-iron working	126	117,006
107	Tobacco, cigars and cigarettes	15	11,191
108	Tools, not elsewhere specified	2	1,100
109	Trunks and valises	0	4,490
110	Upholstering materials	25	23,580
111	Vinegar and cider	1	520
112	Washing machines and clothes wringers	4	1,887
113	Watch, clock and jewelry repairing	4	5,200
114	Windmills		
115	Window shades		
116	Wire-work, including wire rope and cable	20	11,134
117	Wood, turned and carved	26	16,611
118	Woolen goods	177	180,415
119	All other industries*		

## INDUSTRIES—1900—CONTINUED.

RUNNING NUMBER.	AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.							
	Total.		Men, 16 years and over.		Women, 16 years and over.		Children, Under 16 years.	
	Av. No.	Wages.	Av. No.	Wages.	Av. No.	Wages.	Av. No.	Wages.
54	10	3,087	10	3,087				
55	14	3,826	12	936	2	2,890		
56	244	64,539	223	59,830	21	4,709		
57	33	15,067	33	15,067				
58	189	79,613	187	79,427			2	186
59	10	8,865	10	8,865				
60	30	7,383	30	7,383				
61	302	145,392	300	144,662			2	720
62	321	189,916	317	189,366			4	550
63	2	578	2	578				
64	16	7,499	14	7,250			2	243
65	40	16,107	36	14,976	4	1,191		
66	2793	1,046,181	2677	1,028,758	5	1,220	111	16,194
67	2372	983,924	2340	972,611			40	11,313
68	352	161,363	344	160,616			8	1,347
69	1124	570,469	1123	570,450			1	104
70	49	16,738	38	13,468	11	3,270		
71	1258	282,040	5	4,170	1244	277,942	9	828
72	152	58,757	144	57,638	3	419	5	700
73	11	3,786	7	2,750	3	780	1	250
74	328	177,585	327	177,225	1	360		
75	9	4,774	9	4,774				
76	84	44,973	84	44,973				
77	760	331,670	762	330,180			2	260
78	40	14,730	34	13,510	6	1,230		
79	180	63,589	132	55,374	28	4,904	20	3,251
80	121	65,293	121	65,177				
81	192	65,784	192	65,784	89	19,204	1	100
82	332	114,410	326	113,326	2	600	2	282
83	38	9,611	10	4,111	23	4,820	5	680
84	194	72,555	95	43,209	98	29,271	1	75
85	322	69,006	164	43,534	151	25,012	7	460
86	151	64,570	151	64,570				
87	729	374,470	724	373,020	2	516	3	334
88	234	93,299	233	93,024			1	275
89	855	345,665	677	301,999	156	40,766	22	2,660
90	3393	1,311,179	2324	1,107,349	999	148,477	473	55,353
91	97	31,718	96	31,562	1	272		
92	3	1,070	2	800	1	270		
93	1230	493,651	1210	490,626	9	1,919	11	1,106
94	13	6,500	13	6,500				
95	37	18,704	37	18,704				
96	38	13,430	38	13,430				
97	33	11,232	2	836	31	10,396		
98	9	5,410	9	5,410				
99	2874	1,201,681	2630	1,156,935	29	9,906	215	34,840
100	13	6,486	13	6,486				
101	108	38,388	76	34,047	22	3,651	7	690
102	327	114,881	248	97,050	77	17,331	2	500
103	53	24,107	53	24,107				
104	63	20,000	42	15,260	20	4,620	1	120
105	942	423,170	893	416,271	41	5,568	8	1,331
106	1856	700,777	1143	536,622	559	144,534	154	19,621
107	65	26,697	50	22,347	14	4,200	1	150
108	17	6,192	16	6,088				
109	54	13,472	54	13,472				
110	29	10,680	23	9,927	6	1,053		
111	30	10,120	25	9,600				
112	264	132,586	254	130,917	4	1,055	6	614
113	72	43,111	69	41,705	3	1,406		
114	2	1,024	2	1,024				
115	107	49,984	102	39,884			3	1,100
116	48	14,592	48	14,592				
117	256	64,596	126	39,576	128	24,047	2	373
118	1555	793,262	1379	673,680	146	26,141	30	3,441

## MANUFACTURES IN IOWA BY SPECIFIED

Running number.	MANUFACTURING AND MECHANICAL INDUSTRIES.	MISCELLANEOUS EXPENSES.		
		Total.	Rent of works.	Taxes, not including internal rev.
1	ALL INDUSTRIES.....	\$7,988,767	\$1,166,867	\$547,635
2	Agricultural implements.....	96,540	1,807	7,085
3	Awnings, tents and sails.....	8,097	2,736	408
4	Axle grease.....	21,932	36	209
5	Baking and yeast powders.....	4,384	610	33
6	Bicycle and tricycle repairing.....	20,496	12,941	688
7	Blacksmithing and wheelwrighting.....	124,716	60,475	18,021
8	Bookbinding and blank book making.....	8,143	256	256
9	Boots and shoes, custom work and repairing.....	20,418	24,049	1,253
10	Boots and shoes, factory product.....	18,718	1,732	2,174
11	Bottling.....	8,110	2,195	300
12	Boxes, cigar.....	3,721	508	260
13	Boxes, fancy and paper.....	3,668	2,340	211
14	Boxes, wooden packing.....	27,219	915	1,976
15	Brass castings and brass finishing.....	23,418	138	906
16	Bread and other bakery products.....	119,837	40,052	8,857
17	Brick and tile.....	115,807	11,509	14,462
18	Bridges.....	28,067	1,155	462
19	Brooms and brushes.....	8,883	3,542	811
20	Buttons.....	37,252	4,024	1,255
21	Carpentering.....	509,540	24,075	6,367
22	Carpets, rag.....	4,419	312	312
23	Carriage and wagon materials.....	8,275	1,126	234
24	Carrriages and wagons.....	243,794	19,378	24,471
25	Cars and general shop construction and repairs by steam railroad companies.....	124,453	.....	36,894
26	Cars and general shop construction and repairs by street railroad companies.....	880	.....	380
27	Cheese, butter and condensed milk, factory product.....	153,990	12,086	17,039
28	China decorating.....	125	118	2
29	Clothing, mens', custom work and repairing.....	122,672	75,656	5,452
30	Clothing, mens', factory product.....	95,446	12,854	5,361
31	Clothing, womens', dressmaking.....	25,380	20,413	952
32	Clothing, womens', factory product.....	1,639	983	3
33	Coffee and spice, roasting and grinding.....	16,956	4,409	2,521
34	Coffins, burial cases and undertakers' goods.....	13,785	2,158	2,158
35	Confectionery.....	50,311	19,670	2,807
36	Cooperage.....	16,077	3,231	3,376
37	Druggists' preparations, not including prescriptions.....	8,272	595	185
38	Dyeing and cleaning.....	14,219	5,181	399
39	Electrical construction and repairs.....	4,415	2,662	227
40	Fancy articles, not elsewhere specified.....	834	341	125
41	Flavoring extracts.....	2,199	76	76
42	Flouring and grist mill products.....	304,250	18,382	45,395
43	Food preparations.....	193,297	2,026	2,152
44	Foundry and machine shop products.....	208,918	22,534	19,184
45	Fruits and vegetables, canning and preserving.....	63,185	225	3,852
46	Fur goods.....	10,435	5,279	415
47	Furnishing goods, mens'.....	6,821	1,071	165
48	Furniture, cabinet-making, repairing and upholstering.....	14,013	9,214	1,145
49	Furniture, factory product.....	108,860	10,390	6,374
50	Furs, dressed.....	1,932	444	58
51	Gas, illuminating and heating.....	259,017	.....	30,295
52	Gas machines and meters.....	1,602	557	90
53	Gloves and mittens.....	15,009	1,572	1,087
54	Grease and tallow.....	1,682	120	135
55	Hair work.....	1,700	1,262	258
56	Hardware.....	30,768	3,68	557
57	Ice, artificial.....	9,214	966	875
58	Iron work, architectural and ornamental.....	29,680	1,248	1,059
59	Jewelry.....	632	520	17
60	Kindling wood.....	2,302	81	54
61	Lime and cement.....	68,488	7,072	2,580
62	Liquors, malt.....	736,550	15,055	12,775
63	Liquors, vinous.....	322	125	47

## INDUSTRIES—1900—CONTINUED.

RUNNING NUMBER.	MISCELLANEOUS EXPENSES—CON.	COST OF MATERIALS USED.				Value of products, including custom work and repairing.
		Rent of offices, interest, etc	Con- tract work.	Total.	Principal materials, including mill sup- plies and freight.	
1	\$5,592,210	\$682,037	\$101,170,357	\$98,911,434	\$2,258,923	\$164,617,877
2	87,545	103	669,989	650,012	19,977	1,508,567
3	4,953		45,093	47,604	489	101,303
4	21,687		47,857	47,506	351	132,101
5	3,741		13,183	13,008	85	28,335
6	6,513	354	86,014	83,201	2,813	218,554
7	44,061	1,259	1,004,390	994,547	99,843	3,361,298
8	1,841	3,536	27,049	26,080	669	83,391
9	3,940	170	150,285	145,430	4,755	432,339
10	14,812		507,492	502,820	4,666	786,141
11	5,615		60,530	59,793	737	114,666
12	2,843		59,125	49,373	752	90,544
13	517		20,503	25,437	1,066	59,990
14	20,548	3,780	542,745	541,238	1,507	852,687
15	22,374		135,337	132,737	2,600	263,099
16	69,567	1,361	1,427,795	1,380,048	47,747	2,673,788
17	83,732	6,194	460,313	81,123	378,000	1,976,323
18	24,210	2,240	179,412	178,867	545	308,844
19	4,530		151,021	149,067	2,554	348,448
20	26,753	4,620	166,842	183,810	13,032	866,538
21	24,205	444,833	3,627,095	3,615,648	11,447	6,802,393
22	1,324	2	22,353	20,683	1,670	101,246
23	5,855	60	153,715	151,434	2,281	259,523
24	198,475	1,470	1,863,988	1,826,384	37,604	3,931,067
25	87,559		2,896,269	2,795,955	101,214	6,221,378
26	500		36,699	32,399	4,300	97,186
27	121,816	3,046	13,501,550	13,255,944	245,612	15,846,077
28	15		715	610	105	2,300
29	34,150	7,414	816,380	802,714	13,666	2,111,151
30	77,231		910,166	903,944	6,162	1,534,697
31	4,003	12	112,987	108,968	4,019	459,157
32	550	103	25,284	24,798	486	46,098
33	10,036		705,613	789,784	5,820	970,902
34	11,627		226,400	225,285	1,115	399,462
35	33,834		716,901	705,713	11,188	1,264,530
36	10,470		457,477	452,196	5,281	719,035
37	7,492		17,851	17,696	155	45,344
38	8,639		12,710	9,205	3,511	96,528
39	1,526		80,248	79,800	648	134,385
40	368		3,895	3,870	25	10,850
41	863		15,731	15,666	75	30,340
42	239,832	672	11,272,217	11,075,461	196,756	13,823,083
43	192,110		2,388,003	2,355,730	32,273	3,624,031
44	148,782	10,418	2,189,660	2,094,081	94,979	4,469,914
45	57,508	1,600	767,231	755,874	11,357	1,359,958
46	4,741		63,840	63,700	140	136,788
47	5,585		53,329	53,133	196	78,700
48	3,654		123,191	121,432	1,759	266,213
49	74,096	17,948	740,574	734,412	12,162	1,419,862
50	1,430		6,615	5,131	1,484	24,598
51	228,728		203,991	199,731	4,260	807,787
52	955		15,748	15,603	145	32,835
53	12,300	50	124,754	122,575	2,179	283,920
54	1,427		77,725	76,204	1,521	92,423
55	440		4,766	4,631	135	16,410
56	29,803		108,811	103,915	4,896	311,737
57	7,443		10,530	7,758	772	108,400
58	7,995	10,377	300,714	298,005	2,709	512,009
59	95		8,654	8,368	286	32,900
60	2,227		8,933	8,658	275	23,554
61	27,672	31,104	181,514	139,956	41,564	543,207
62	708,725		385,104	331,304	53,800	1,713,911
63	150		1,410	1,410		4,119

## MANUFACTURES IN IOWA BY SPECIFIED

Running number.	MANUFACTURING AND MECHANICAL INDUSTRIES.	MISCELLANEOUS EXPENSES.		
		Total.	Rent of works	Taxes, not including intern. rev.
64	Lock and gun smithing .....	5,418	4,117	265
65	Looking-glass and picture frames.....	7,052	4,114	367
66	Lumber and timber products.....	342,386	7,102	65,549
67	Lumber, planing mill products, including sash, doors and blinds .....	255,079	11,521	23,027
68	Marble and stone work .....	15,957	1,769	1,742
69	Masonry, brick and stone .....	44,432	6,359	908
70	Mattresses and spring beds.....	10,611	1,995	193
71	Millinery, custom work .....	170,220	110,735	9,760
72	Mineral and soda waters.....	42,007	5,359	2,601
73	Models and patterns.....	943	326	114
74	Monuments and tombstones.....	48,117	13,886	4,315
75	Musical instruments and materials, not specified.....	2,864	1,259	52
76	Oil, linseed.....	61,932	4,869	4,869
77	Painting, house, sign, etc.....	38,286	22,285	1,471
78	Paints.....	19,833	20	783
79	Paper and wood pulp .....	13,350	2,500	115
80	Paper hanging.....	10,374	5,795	598
81	Patent medicines and compounds.....	201,398	8,853	2,066
82	Paving and paving materials .....	7,293	1,469	250
83	Perfumery and cosmetics.....	20,216	1,544	406
84	Photography.....	79,009	45,051	2,978
85	Pickles, preserves and sauces.....	39,651	1,789	4,095
86	Plastering and stucco work .....	7,344	1,557	62
87	Plumbing and gas and steam fitting.....	67,186	31,483	4,138
88	Pottery, terra cotta and fire clay products .....	24,562	.....	2,093
89	Printing and publishing, book and job.....	89,247	31,342	6,310
90	Printing and publishing, newspapers and periodicals.....	444,690	101,133	22,154
91	Roofing and roofing materials .....	5,979	2,685	338
92	Rubber and elastic goods.....	587	.....	.....
93	Saddlery and harness.....	168,252	72,888	21,559
94	Sausage.....	1,000	660	255
95	Scales and balances.....	3,528	1,705	490
96	Sewing machine repairing .....	637	272	.....
97	Ship and boat building, wooden .....	1,180	315	228
98	Shirts.....	1,344	998	39
99	Show cases.....	1,306	1,230	.....
100	Slaughtering and meat packing, wholesale .....	437,103	4,130	19,345
101	Slaughtering, wholesale, not including meat packing .....	4,883	.....	831
102	Soap and candles .....	34,722	3,965	1,427
103	Starch .....	59,192	180	3,375
104	Steam fittings and heating apparatus .....	5,381	540	266
105	Sugar and molasses, refining .....	14,627	21	1,015
106	Tinsmithing, copper-smithing and sheet-iron working.....	99,450	42,721	9,668
107	Tobacco, cigars and cigarettes.....	412,818	52,843	8,647
108	Tools, not elsewhere specified .....	3,334	125	872
109	Trunks and valises .....	4,010	2,032	299
110	Upholstering materials .....	1,179	50	124
111	Vinegar and cider .....	11,270	887	665
112	Washing machines and clothes wringers .....	1,878	369	92
113	Watch, clock and jewelry repairing.....	65,264	44,641	4,535
114	Windmills .....	7,433	1,066	.....
115	Window shades.....	235	105	30
116	Wire-work, including wire rope and cable.....	24,708	2,592	608
117	Wood, turned and carved.....	1,606	287	187
118	Woolen goods .....	16,831	650	2,726
119	All other industries*	350,842	21,172	12,148

\* Embraces artificial limbs, 1; baskets and rattan and willow ware, 2; bells, 1; bicycles and arations, 2; cordage and twines, 1; cutlery and edge tools, 1; dentists' materials, 2; electrical wood, 1; explosives, 1; fertilizers, 1; gas and lamp fixtures, 2; glass, cutting, staining and including fur hats, and wool hats, 1; hosiery and knit goods, 2; lamps and reflectors, 2; lead, marble and marbledized, 1; mirrors, 1; musical instruments, organs and materials, 1; oil, not 2; paper hangings, 1; pens, fountain and stylographic, 1; photographic materials, 2; pipes, steam pumps, 2; refrigerators, 1; saws, 1; ship-building, iron and steel, 1; stereotyping and 1; typewriters and supplies, 1; typewriter repairing, 1; woodenware, not elsewhere specified, 2.

## INDUSTRIES—1900—CONTINUED.

Running number.	MISCELLANEOUS EXPENSES—CON.	COST OF MATERIALS USED.			Value of products, including custom work and repairing.
		Rent of offices, interest, etc.	Contract work.	Total.	
64	.....	1,036	.....	11,220	934
65	.....	1,871	1,300	45,195	521
66	.....	269,735	.....	6,324,034	50
67	.....	221,431	.....	3,195,243	3,172,827
68	.....	11,016	1,400	102,503	95,841
69	.....	17,075	20,000	1,022,997	1,021,394
70	.....	7,998	425	88,468	86,798
71	.....	42,030	795	1,390,783	1,375,737
72	.....	33,951	60	146,803	148,881
73	.....	493	.....	2,365	1,941
74	.....	29,666	250	630,514	626,901
75	.....	1,553	.....	32,552	32,396
76	.....	57,123	.....	1,456,798	1,441,403
77	.....	14,430	100	337,395	335,825
78	.....	19,030	.....	255,510	256,953
79	.....	19,735	.....	106,615	80,678
80	.....	3,981	.....	84,045	81,810
81	.....	190,444	15	300,883	298,174
82	.....	5,574	.....	156,747	993
83	.....	18,366	.....	39,995	39,588
84	.....	20,627	1,353	213,677	204,860
85	.....	33,857	.....	414,937	409,414
86	.....	86	.....	4,766	77,717
87	.....	30,923	642	925,992	199,276
88	.....	22,210	250	57,267	10,811
89	.....	44,529	7,066	411,711	393,957
90	.....	286,431	34,972	1,082,549	1,014,827
91	.....	2,946	.....	84,088	83,367
92	.....	322	.....	2,995	2,878
93	.....	67,768	6,037	1,705,432	1,681,581
94	.....	85	.....	47,430	47,430
95	.....	1,333	.....	22,491	21,139
96	.....	361	.....	1,260	1,190
97	.....	637	.....	13,207	12,603
98	.....	314	.....	6,509	6,210
99	.....	70	.....	6,869	6,694
100	.....	413,628	.....	21,195,060	21,054,250
101	.....	4,052	.....	361,578	360,528
102	.....	29,330	.....	407,150	400,041
103	.....	56,637	.....	623,814	586,630
104	.....	4,575	.....	30,029	36,179
105	.....	13,591	.....	130,675	127,345
106	.....	47,611	600	1,058,071	1,039,638
107	.....	351,178	150	948,991	940,300
108	.....	2,337	.....	92,249	3,191
109	.....	1,679	.....	16,300	15,804
110	.....	1,005	.....	26,362	25,120
111	.....	9,918	.....	62,802	58,685
112	.....	1,390	.....	22,000	21,745
113	.....	15,191	1,527	147,361	141,191
114	.....	5,773	.....	62,016	61,032
115	.....	100	.....	3,545	3,545
116	.....	21,548	.....	226,015	222,410
117	.....	1,132	.....	18,280	16,546
118	.....	13,455	.....	175,426	169,383
119	.....	270,009	47,513	3,403,420	3,043,420

tricycles, 1; brassware, 1; butter, re-working, 1; charcoal, 2; cleansing and polishing pre-apparatus and supplies, 2; electroplating, 2; enameling and enameled goods, 1; engraving, ornamenting, 2; glucose, 2; hand stamps, 2; hardware, saddlery, 1; hats and caps, not smelting and refining, 1; leather, tanned, curried and finished, 2; malt, 2; mantels, slate, elsewhere specified, 1; oysters, canning and preserving, 1; paper goods, not elsewhere specified, tobacco, 1; plumbers' supplies, 1; printing and publishing, music, 2; pumps, not including electrotyping, 2; surgical appliances, 2; tobacco, chewing, smoking, and snuff, 1; toys and games,

TABLE  
Manufactures in Iowa

Running number.	COUNTIES.	Num- ber of estab- lish- ments.	CAPITAL.	
			Total.	Land.
1	The State.....	14,810	\$102,733,103	\$ 11,701,330
2	Adair.....	77	122,020	7,903
3	Adams.....	50	160,487	21,130
4	Allamakee.....	110	365,709	40,660
5	Appanoose.....	125	252,660	38,780
6	Audubon.....	62	132,450	10,190
7	Benton.....	183	460,102	52,090
8	Black Hawk.....	274	2,104,542	208,214
9	Boone.....	184	536,701	61,040
10	Bremer.....	145	400,822	45,240
11	Buchanan.....	163	506,090	60,190
12	Buena Vista.....	107	235,566	29,000
13	Butler.....	140	314,878	35,155
14	Calhoun.....	119	268,593	30,700
15	Carroll.....	125	327,945	28,303
16	Cass.....	138	386,484	42,355
17	Cedar.....	125	449,209	50,215
18	Cerro Gordo.....	162	510,319	72,740
19	Cherokee.....	83	214,786	22,690
20	Chickasaw.....	131	290,617	33,071
21	Clarke.....	38	87,686	14,350
22	Clay.....	53	107,613	24,615
23	Clayton.....	213	644,521	37,555
24	Clinton.....	320	4,750,638	510,490
25	Crawford.....	77	222,037	24,030
26	Dallas.....	124	316,986	22,355
27	Davis.....	87	164,950	32,100
28	Decatur.....	92	203,383	10,915
29	Delaware.....	155	415,434	52,825
30	Des Moines.....	370	5,074,811	1,321,484
31	Dickinson.....	54	163,884	15,083
32	Dubuque.....	609	8,478,553	900,837
33	Emmett.....	51	170,102	9,004
34	Fayette.....	220	1,022,954	55,040
35	Floyd.....	118	411,891	69,755
36	Franklin.....	56	165,013	10,525
37	Frederick.....	120	249,046	25,501
38	Greene.....	85	239,632	26,450
39	Grundy.....	86	178,286	11,480
40	Guthrie.....	164	275,509	20,590
41	Hamilton.....	86	497,471	42,270
42	Hancock.....	79	173,703	20,400
43	Hardin.....	195	520,276	63,340
44	Harrison.....	125	308,191	30,290
45	Henry.....	136	347,855	21,780
46	Howard.....	110	283,808	20,590
47	Humboldt.....	95	230,877	21,295
48	Iowa.....	72	205,908	21,190
49	Jackson.....	114	247,008	23,045
50	Jackson.....	207	655,345	64,514

No. 2.

by Counties: 1900.

RUNNING NUMBER.	CAPITAL.			
	Buildings.	Machinery, tools and imple- ments.	Cash and sundries.	Propri- etors and firm members.
1.....	\$ 18,554,185	\$ 26,150,011	\$ 46,327,577	16,610
2.....	36,741	44,785	32,597	95
3.....	27,335	59,255	52,767	67
4.....	85,971	101,897	137,175	135
5.....	57,655	101,523	54,702	138
6.....	30,465	47,760	44,035	64
7.....	123,850	123,034	107,128	217
8.....	366,196	524,334	915,798	273
9.....	78,490	135,720	261,535	224
10.....	105,050	118,401	132,131	152
11.....	102,475	174,620	168,805	172
12.....	59,014	78,855	68,637	124
13.....	83,855	93,714	122,154	149
14.....	43,040	80,740	114,113	134
15.....	54,760	97,862	147,080	189
16.....	74,475	108,640	107,014	183
17.....	98,430	129,390	165,174	145
18.....	105,502	137,108	194,960	189
19.....	45,315	70,997	75,784	92
20.....	67,823	98,072	100,661	130
21.....	12,855	27,000	32,881	45
22.....	36,110	59,227	47,361	61
23.....	104,840	191,390	307,736	235
24.....	387,261	841,428	3,011,453	310
25.....	46,165	74,760	77,082	90
26.....	70,505	109,430	108,696	158
27.....	23,665	58,722	50,472	105
28.....	49,230	61,503	75,735	100
29.....	104,170	133,465	124,874	190
30.....	669,505	1,383,868	2,299,954	350
31.....	33,300	57,595	57,000	65
32.....	1,354,364	1,342,822	4,880,530	675
33.....	41,325	53,353	72,480	51
34.....	431,804	257,715	277,495	245
35.....	91,002	108,116	142,988	134
36.....	28,275	66,614	53,569	82
37.....	45,970	89,420	88,246	153
38.....	65,067	64,787	83,328	169
39.....	49,470	57,218	60,118	107
40.....	75,070	92,743	86,206	114
41.....	105,573	120,352	190,276	91
42.....	44,210	50,281	52,810	80
43.....	107,423	167,394	182,149	226
44.....	69,700	87,972	123,169	130
45.....	65,347	149,191	112,537	168
46.....	60,600	76,050	120,580	139
47.....	54,025	86,328	78,229	96
48.....	49,175	75,090	120,541	90
49.....	65,870	83,480	74,613	142
50.....	128,535	201,349	266,947	228

TABLE No. 2—  
Manufactures in Iowa

Running Number.	COUNTIES.	Number of establishments.	CAPITAL.	
			Total.	Land.
51	Asper	185	\$ 684,469	\$ 41,410
52	Jefferson	76	537,929	21,700
53	Johnson	184	1,275,068	107,810
54	Jones	169	568,490	63,242
55	Keokuk	181	377,600	38,848
56	Kossuth	86	258,168	21,830
57	Lee	329	4,192,064	237,730
58	Linn	470	6,657,081	509,865
59	Louis	48	158,117	9,200
60	Lucas	73	157,642	11,570
61	Madison	68	199,763	10,940
62	Mahaska	90	150,011	10,700
63	Marion	200	672,834	67,065
64	Marshall	123	468,254	27,845
65	Mills	226	6,245,431	1,597,980
66	Mitchell	78	175,701	13,330
67	Monona	96	225,768	33,585
68	Monroe	75	172,517	13,175
69	Montgomery	82	130,066	10,685
70	Muscatine	127	414,038	39,440
71	O'Brien	315	3,886,703	231,745
72	Osceola	103	327,134	22,075
73	Page	44	90,874	11,250
74	Palo Alto	176	497,915	55,060
75	Plymouth	101	248,377	23,849
76	Pocahontas	141	799,499	133,130
77	Polk	76	170,639	10,530
78	Pottawattamie	547	8,050,689	576,157
79	Poweshiek	324	1,450,472	134,050
80	Ringgold	144	961,275	26,727
81	Sac	70	87,005	8,950
82	Scott	115	264,203	21,755
83	Shelby	470	10,990,549	1,904,188
84	Sioux	72	150,115	11,947
85	Story	145	377,886	32,660
86	Tama	148	342,615	29,715
87	Taylor	147	529,082	70,505
88	Union	117	170,007	15,523
89	Van Buren	137	451,870	30,465
90	Wapello	124	594,371	37,785
91	Warren	208	3,472,604	99,570
92	Washington	103	225,941	26,607
93	Wayne	137	442,276	47,735
94	Webster	102	196,345	18,395
95	Winnebago	172	1,530,042	159,654
96	Winneshek	78	230,456	18,000
97	Woodbury	174	601,851	52,413
98	Worth	398	5,950,223	535,068
99	Wright	72	155,506	10,015
100		104	281,030	18,715

CONTINUED.

by Counties: 1900.

Running Number.	BUILDINGS.	Machinery, tools and implements.	Cash and sundries.	Proprietor and firm members.
51	\$ 92,143	\$ 131,150	\$ 419,757	210
52	61,020	120,209	335,000	81
53	219,440	358,001	590,717	198
54	162,383	177,166	165,609	179
55	101,540	106,102	137,133	231
56	62,073	87,775	84,490	80
57	609,573	990,822	2,353,939	341
58	1,411,522	1,541,738	3,194,850	548
59	38,200	36,670	80,947	58
60	23,047	20,368	86,057	85
61	44,005	68,645	70,172	75
62	25,280	44,031	70,000	101
63	110,705	182,113	312,951	239
64	60,700	100,528	219,181	152
65	1,656,605	1,817,785	1,261,081	252
66	49,000	64,534	77,847	84
67	53,010	72,800	60,373	105
68	35,100	43,480	80,762	85
69	24,340	38,525	50,516	91
70	91,300	132,846	159,446	149
71	343,051	724,847	2,587,060	377
72	67,000	96,158	141,991	117
73	24,255	30,476	24,893	47
74	108,547	141,352	193,066	208
75	47,995	73,794	102,730	106
76	174,010	219,932	242,427	140
77	41,555	60,736	57,218	83
78	934,341	2,398,147	4,142,044	509
79	233,755	454,158	604,509	355
80	74,378	98,378	761,812	176
81	19,765	29,540	28,750	91
82	63,154	80,745	80,549	135
83	2,227,351	2,980,106	3,878,814	517
84	30,300	55,338	52,530	79
85	95,235	112,793	137,198	102
86	80,500	96,780	135,650	109
87	107,120	222,083	129,374	182
88	37,475	54,860	63,013	130
89	144,642	174,470	102,293	140
90	116,927	164,581	275,008	156
91	567,780	477,623	2,327,631	250
92	43,625	58,636	75,073	131
93	92,975	101,649	199,917	157
94	41,805	57,050	79,185	130
95	343,725	504,059	478,505	177
96	37,825	60,465	80,166	82
97	141,845	148,223	250,370	180
98	1,158,774	1,508,541	2,740,940	449
99	40,775	55,135	43,581	71
100	68,120	85,936	108,259	115

TABLE No. 2—

*Manufactures in Iowa*

Running number.	COUNTIES.	Salaried officials, clerks, etc.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.			
				Total.		Men, 16 years and over	
		Number.	Salaries.	Average number.	Wages.	Average number.	Wages.
1	The State	5664	\$ 4,486,117	58553	\$ 23,931,680	48417	\$ 21,893,983
2	Adair	3	864	68	24,091	55	21,509
3	Adams	6	3,176	79	29,475	68	26,706
4	Allamakee	18	4,309	225	80,809	206	70,845
5	Appanoose	17	8,351	246	96,533	198	87,729
6	Audubon	7	627	80	32,164	62	29,449
7	Benton	21	11,872	466	166,212	375	147,398
8	Black Hawk	152	105,978	1,435	625,649	1,210	584,098
9	Boone	33	21,322	762	346,234	664	329,615
10	Bremer	33	7,262	189	71,411	162	65,430
11	Buchanan	20	8,282	254	96,481	215	90,070
12	Buena Vista	8	3,810	102	42,112	85	38,938
13	Butler	20	8,273	116	49,483	98	45,281
14	Calhoun	9	5,555	219	100,244	185	94,260
15	Carroll	10	5,717	152	63,454	120	56,864
16	Cass	7	3,580	299	169,111	217	95,560
17	Cedar	1	3,520	247	117,160	222	112,571
18	Cerro Gordo	30	20,586	425	185,226	365	173,280
19	Cherokee	2	1,400	96	43,320	80	39,958
20	Chickasaw	22	5,968	157	58,927	130	53,486
21	Clarke	6	2,100	40	20,220	40	19,395
22	Clay	5	3,800	56	21,268	48	20,358
23	Clayton	29	8,403	372	119,262	336	113,189
24	Clinton	207	235,512	3,147	1,161,486	2,794	1,090,863
25	Crawford	1	1,000	94	34,863	80	32,411
26	Dallas	8	5,648	152	53,099	128	48,160
27	Davis	6	1,582	114	30,786	82	26,156
28	Decatur	8	3,630	103	38,155	83	34,006
29	Delaware	28	8,119	236	92,157	192	85,365
30	Des Moines	338	228,417	3,178	1,368,537	2,774	1,239,390
31	Dickinson	1	150	42	20,791	37	19,274
32	Dubuque	612	459,393	5,662	2,076,348	4,383	1,846,411
33	Emmet	8	2,530	69	32,393	65	31,341
34	Fayette	35	15,320	742	349,390	674	338,335
35	Floyd	12	5,806	253	101,770	226	96,380
36	Franklin	5	2,315	58	26,387	51	24,067
37	Fremont	3	1,100	135	43,492	110	39,740
38	Greene	2	4,120	137	59,950	104	52,881
39	Grundy	2	840	65	27,215	57	25,120
40	Guthrie	5	1,370	158	51,220	126	45,882
41	Hamilton	29	15,942	251	98,434	218	90,383
42	Hancock	6	1,400	75	31,048	59	29,520
43	Hardin	14	5,520	297	128,540	259	120,274
44	Harrison	18	11,243	582	274,049	536	267,709
45	Henry	13	7,121	181	59,651	135	52,881
46	Howard	13	5,803	145	53,398	130	50,095
47	Humboldt	12	3,860	70	30,338	62	28,228
48	Ida	4	2,428	94	38,087	79	34,950
49	Iowa	7	2,091	118	43,259	101	41,000
50	Jackson	23	9,666	420	158,629	372	148,255

CONTINUED.

*by Counties: 1900.*

RUNNING NUMBER.	AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.			
	Women, over 16 years.		Children under 16 years.	
	Average number.	Wages.	Average number.	Wages.
1	8248	\$ 1,766,586	1888	\$ 271,111
2	9	1,993	4	589
3	10	2,719	1	50
4	15	3,558	4	406
5	41	8,007	7	800
6	17	2,628	1	90
7	75	16,249	16	2,505
8	192	36,710	29	4,241
9	68	14,005	30	2,614
10	19	4,660	8	1,321
11	28	4,975	11	1,436
12	16	3,124	1	50
13	15	3,842	3	360
14	23	4,829	11	1,155
15	22	5,260	10	1,330
16	71	11,760	11	1,791
17	18	3,404	7	1,185
18	57	11,720	3	217
19	15	3,137	1	225
20	24	5,054	3	387
21	5	700	1	125
22	3	370	5	540
23	30	5,469	6	604
24	254	53,164	99	17,459
25	9	1,937	5	515
26	10	4,221	5	718
27	28	4,290	4	540
28	14	3,305	6	844
29	38	6,325	6	527
30	315	56,994	80	12,183
31	3	1,260	2	229
32	1,164	211,778	115	18,159
33	4	1,002	.....	50
34	49	9,358	19	1,697
35	20	4,884	7	506
36	7	2,320	.....	.....
37	17	2,873	8	879
38	33	6,705	.....	.....
39	7	1,020	1	175
40	20	3,862	12	1,543
41	17	5,586	16	2,466
42	15	1,408	1	30
43	36	8,007	3	169
44	36	6,070	10	870
45	37	5,814	9	956
46	11	2,466	4	737
47	12	1,805	3	305
48	8	2,731	3	460
49	8	1,675	.....	584
50	44	9,408	4	966

TABLE No. 2—  
Manufactures in Iowa

Running number.	COUNTIES.	Salaried officials, clerks, etc.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.			
				Total.		Men, 16 years and over.	
		Number.	Salaries.	Average number.	Wages.	Average number.	Wages.
51	Asper.....	70	\$ 45,680	405	\$ 156,667	309	\$ 141,866
52	Jefferson.....	47	13,164	244	48,642	195	77,240
53	Johnson.....	155	72,529	747	324,109	598	297,287
54	Jones.....	17	6,663	317	111,853	255	99,920
55	Keokuk.....	18	9,391	233	93,069	203	86,973
56	Kossuth.....	17	3,723	99	46,166	87	44,012
57	Lee.....	426	533,955	2,842	1,104,748	2,266	985,368
58	Linn.....	341	289,108	3,184	1,424,523	2,605	1,295,770
59	Louis.....	7	3,135	155	44,171	102	34,687
60	Lucas.....	8	5,049	200	73,467	167	68,392
61	Lyon.....	1	600	59	28,866	50	27,270
62	Madison.....	6	1,827	137	42,645	114	48,514
63	Mahaska.....	52	30,794	653	284,072	534	257,964
64	Marion.....	15	6,111	241	65,525	188	58,090
65	Marshall.....	118	115,946	1,715	742,079	1,570	716,099
66	Mills.....	8	4,832	115	54,338	96	40,819
67	Mitchell.....	11	4,600	130	50,607	109	47,064
68	Monona.....	2	318	52	19,030	46	18,215
69	Monroe.....	3	1,650	113	42,558	94	39,497
70	Montgomery.....	20	12,189	274	94,247	229	87,475
71	Muscatine.....	141	132,875	2,920	1,089,760	2,390	983,850
72	O'Brien.....	6	3,910	119	41,905	103	38,976
73	Osceola.....	.....	.....	37	14,869	32	14,195
74	Pago.....	14	7,716	302	144,153	303	134,435
75	Palo Alto.....	20	5,356	118	57,731	118	53,395
76	Plymouth.....	33	20,075	250	109,574	229	103,733
77	Pocahontas.....	2	180	77	30,205	55	20,719
78	Polk.....	742	606,010	4,780	2,057,979	3,855	1,841,414
79	Pottawattamie.....	134	116,844	1,282	652,164	1,124	617,776
80	Poweshiek.....	34	23,807	389	166,355	310	144,163
81	Ringgold.....	12	198	48	18,436	37	16,391
82	Sac.....	4	1,146	88	36,640	75	33,562
83	Scott.....	462	457,338	4,410	1,918,593	3,392	1,682,915
84	Shelby.....	10	2,290	70	28,588	63	27,730
85	Sioux.....	12	7,070	169	67,341	143	61,962
86	Story.....	15	4,093	175	72,968	136	66,348
87	Tama.....	20	10,960	320	122,137	249	111,106
88	Taylor.....	3	410	128	19,650	103	17,714
89	Union.....	32	23,725	457	191,129	398	182,084
90	Van Buren.....	30	22,341	349	160,853	228	78,291
91	Wapello.....	211	178,538	2,150	819,570	1,766	738,632
92	Warren.....	4	1,900	106	35,232	86	32,350
93	Washington.....	10	3,910	288	105,948	258	100,777
94	Wayne.....	8	2,465	133	42,540	104	37,829
95	Webster.....	121	84,034	746	326,728	617	298,903
96	Winnebago.....	13	3,235	142	57,868	118	52,077
97	Winnesboro.....	23	12,016	287	115,556	251	108,192
98	Woodbury.....	329	297,997	3,183	1,514,206	2,679	1,407,358
99	Worth.....	8	1,005	55	23,476	48	21,957
100	Wright.....	14	6,638	267	128,695	246	124,760

CONTINUED.

by Counties: 1900.

RUNNING NUMBER	AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.			
	Women, over 16 years.		Children, under 16 years.	
	Average number.	Wages.	Average number.	Wages.
51	91	\$ 14,269	5	\$ 532
52	35	6,795	14	601
53	136	24,644	13	2,178
54	48	10,400	14	1,524
55	23	5,303	7	703
56	6	1,335	6	819
57	485	166,795	91	12,585
58	459	103,868	120	24,945
59	20	4,780	33	4,794
60	28	4,595	5	480
61	3	630	6	900
62	17	3,571	6	560
63	64	23,289	25	2,819
64	35	5,501	18	1,844
65	120	24,211	25	2,669
66	40	11,779	9	1,740
67	15	2,993	6	710
68	2	275	4	540
69	14	2,355	5	706
70	36	5,889	9	883
71	366	80,597	164	25,313
72	10	2,219	6	710
73	3	486	2	188
74	44	8,449	15	1,269
75	17	3,328	8	1,010
76	24	5,201	6	640
77	14	2,718	8	858
78	819	108,092	166	19,736
79	130	30,125	28	4,263
80	71	21,936	2	256
81	6	1,365	5	680
82	11	2,870	2	208
83	854	212,665	164	23,013
84	2	468	5	450
85	15	3,419	11	1,960
86	26	5,160	13	1,460
87	40	6,668	31	4,333
88	16	811	9	1,125
89	59	9,045	.....	.....
90	169	21,514	12	1,053
91	232	60,465	152	20,548
92	9	1,712	4	1,170
93	4	4,258	6	913
94	21	3,885	8	835
95	98	25,890	11	1,585
96	20	5,063	4	728
97	34	7,274	2	180
98	443	97,137	61	9,803
99	6	1,139	1	180
100	13	3,133	8	862

TABLE No. 2—

Manufactures in Iowa

Running number.	COUNTIES.	MISCELLANEOUS EXPENSES.				
		Total.	Rent of works.	Taxes not including internal revenue.	Rent of offices, interest, etc.	Contract work.
1	The State.....	\$ 7,988,767	\$ 1,166,879	\$ 547,635	\$ 5,592,216	\$ 689,037
2	Adair .....	9,158	2,751	771	5,528	108
3	Adams .....	10,371	2,705	755	6,851	285
4	Allamakee.....	18,266	5,235	1,854	10,852	5,850
5	Appanoose.....	18,019	4,576	2,524	5,669	25
6	Audubon .....	7,548	3,017	993	3,513	3,702
7	Benton .....	49,384	7,544	3,198	34,880	286
8	Black Hawk.....	144,504	29,097	13,384	101,737	435
9	Boone .....	13,702	15,911	4,350	13,000	150
10	Bremer .....	19,344	6,799	1,747	9,911	887
11	Buchanan.....	22,514	7,166	2,730	12,468	179
12	Buena Vista.....	13,053	4,413	1,325	7,145	150
13	Butler .....	19,070	6,411	1,044	10,565	250
14	Calhoun .....	14,029	5,271	1,738	6,770	10
15	Carroll .....	19,624	6,154	1,600	11,014	2,060
16	Cass .....	27,305	9,047	2,977	14,671	1,125
17	Cedar .....	15,591	5,197	2,136	5,298	2,060
18	Cerro Gordo.....	20,990	9,092	3,066	13,710	1,125
19	Cherokee .....	16,372	4,602	1,253	10,457	2,839
20	Chickasaw.....	20,483	4,607	1,791	11,186	26
21	Clarke .....	4,909	1,670	657	2,545	1,501
22	Clay .....	9,093	1,568	1,199	4,825	700
23	Clayton .....	25,844	7,219	2,852	15,073	200
24	Clinton .....	377,521	32,807	50,704	290,400	3,550
25	Crawford.....	11,115	3,750	1,547	5,692	120
26	Dallas .....	18,089	5,375	1,792	10,082	840
27	Davis .....	8,215	3,264	931	3,780	240
28	Decatur .....	10,044	3,012	1,089	5,793	150
29	Delaware .....	21,060	3,399	1,971	16,599	33,031
30	Des Moines.....	450,508	53,958	30,548	332,371	507
31	Dickinson.....	6,447	2,206	1,086	2,048	113,548
32	Dubuque .....	1,044,201	90,738	54,688	785,227	700
33	Emmett .....	9,608	3,477	851	4,880	666
34	Fayette.....	37,356	10,011	3,289	23,399	530
35	Floyd .....	20,976	5,868	2,352	12,226	5,070
36	Franklin .....	8,220	2,311	839	5,070	200
37	Fremont .....	13,768	4,563	1,739	7,266	310
38	Greene .....	10,577	4,106	1,352	4,800	30
39	Grundy .....	10,514	4,051	1,080	4,753	109
40	Guthrie .....	15,515	4,373	1,700	9,282	17
41	Hamilton .....	22,156	4,015	2,175	15,966	8,625
42	Hancock .....	8,149	3,126	1,174	3,832	40
43	Hardin .....	35,029	7,761	3,308	15,245	1,140
44	Harrison.....	10,413	6,233	2,564	7,570	622
45	Henry .....	24,951	10,951	2,102	11,058	117
46	Howard .....	13,119	4,474	1,720	6,103	75
47	Humboldt.....	9,943	2,430	1,536	5,869	440
48	Ia .....	11,143	3,435	6,028	7,607	3,708
49	Iowa .....	13,188	3,598	1,537	7,607	3,708
50	Jackson .....	48,550	7,315	3,794	33,649	3,708

CONTINUED.

by Counties: 1900.

RUNNING NUMBER.	COST OF MATERIALS USED.			
	Total.	Principal materials including mill supplies and freight.	Fuel and rent of power and heat.	Value of products, including custom work and repairing.
1	\$101,179,357	\$98,011,434	\$ 2,258,023	\$ 164,617,877
2	102,832	157,474	5,358	230,921
3	235,504	228,284	7,220	339,404
4	430,121	422,350	7,771	682,479
5	215,921	207,558	8,363	447,415
6	274,815	268,104	6,711	386,073
7	529,189	511,778	17,411	933,903
8	2,644,551	2,604,766	39,785	4,071,821
9	601,547	577,334	24,213	1,194,270
10	681,321	668,066	13,255	929,293
11	654,034	641,759	12,275	959,277
12	318,791	307,840	10,951	469,023
13	581,932	569,635	12,297	796,660
14	295,359	288,904	6,455	509,497
15	327,212	319,269	7,943	543,480
16	490,218	481,203	9,035	817,070
17	288,958	274,455	14,503	543,252
18	443,220	422,154	21,066	899,879
19	107,910	100,814	7,096	311,632
20	683,371	670,519	12,852	912,868
21	83,613	80,093	2,710	151,847
22	240,093	235,800	5,097	340,449
23	1,060,045	1,045,656	14,389	1,514,540
24	4,450,409	4,400,940	58,589	7,265,252
25	241,021	229,685	11,336	397,232
26	302,710	285,774	16,936	510,068
27	95,086	92,827	2,199	208,037
28	91,050	88,548	4,708	212,368
29	758,979	743,426	15,553	1,085,520
30	3,247,247	3,181,304	65,943	6,145,770
31	207,178	200,104	7,014	296,062
32	6,206,995	6,201,987	104,978	11,014,240
33	103,345	157,435	6,110	242,376
34	1,056,235	1,034,779	30,456	1,729,214
35	393,308	385,781	9,527	666,714
36	184,539	178,908	5,629	273,293
37	104,602	184,299	10,263	351,889
38	220,266	211,275	8,991	388,638
39	312,833	313,833	8,405	450,816
40	312,045	299,452	12,593	489,678
41	416,396	393,156	23,180	718,466
42	166,033	162,161	4,772	271,219
43	684,819	670,411	14,408	1,060,422
44	480,232	467,560	21,672	808,661
45	219,557	210,152	6,405	414,966
46	467,604	459,424	8,279	681,037
47	285,218	277,924	7,294	435,798
48	317,090	309,122	7,967	463,228
49	219,299	219,299	11,919	368,795
50	620,490	607,420	13,070	971,117

TABLE No. 2—  
Manufactures in Iowa

Running number.	COUNTIES.	MISCELLANEOUS EXPENSES.				
		Total.	Rent of works	Taxes not including internal revenue.	Rent of offices, interest, etc.	Contract work.
51	Jasper.....	\$ 64,060	\$ 10,938	\$ 4,122	\$ 37,367	\$ 11,633
52	Jefferson.....	26,510	1,807	1,741	19,962	895
53	Johnson.....	98,149	18,420	6,403	72,501	1,145
54	Jones.....	26,617	8,019	3,171	14,282	185
55	Keokuk.....	18,333	6,509	2,457	9,092	525
56	Kossuth.....	12,755	3,119	1,704	7,347	50,506
57	Lee.....	325,003	30,603	26,900	208,504	52,572
58	Linn.....	545,593	54,057	20,340	418,624	15
59	Louisia.....	7,178	2,364	900	3,899	1,300
60	Lucas.....	14,015	6,286	859	5,070	312
61	Lyon.....	9,435	3,462	1,277	4,384	7,460
62	Madison.....	17,677	5,098	930	4,183	13,225
63	Mahaska.....	72,043	19,689	4,197	35,532	300
64	Marion.....	18,479	4,249	2,278	11,052	110
65	Marshall.....	209,999	24,131	10,350	175,518	
66	Mills.....	10,465	4,029	962	5,474	
67	Mitchell.....	12,553	3,237	1,068	8,248	
68	Monona.....	7,727	2,527	4,224		
69	Monroe.....	12,185	4,387	833	5,330	1,635
70	Montgomery.....	26,520	8,391	2,705	15,183	250
71	Muscataine.....	219,554	21,187	25,148	124,854	48,365
72	O'Brien.....	18,500	5,338	2,798	10,289	75
73	Osceola.....	6,166	2,020	635	1,500	2,055
74	Page.....	27,157	7,860	3,660	13,582	201
75	Palo Alto.....	12,434	5,101	1,154	5,078	577
76	Plymouth.....	63,320	8,046	4,312	50,385	
77	Pocahontas.....	8,823	3,040	1,177	4,606	
78	Polk.....	901,105	134,902	43,650	615,442	107,111
79	Pottawattamie.....	178,344	30,216	9,674	133,010	4,544
80	Poweshiek.....	43,128	6,170	2,095	21,898	13,035
81	Ringgold.....	5,444	2,482	710	2,247	5
82	Sac.....	13,667	3,475	1,412	8,780	610
83	Scott.....	861,287	77,317	45,405	655,182	83,383
84	Shelby.....	5,610	1,071	715	3,224	
85	Sioux.....	34,054	4,959	2,700	26,339	1,023
86	Story.....	19,529	6,022	1,807	10,477	789
87	Tama.....	29,141	7,295	2,418	18,630	5,824
88	Taylor.....	16,540	3,700	1,067	5,040	1,800
89	Union.....	34,554	13,043	5,804	13,787	20,198
90	Van Buren.....	28,311	3,268	2,939	1,906	1,822
91	Wapello.....	205,929	28,955	13,740	161,405	1,600
92	Warren.....	11,518	2,840	1,359	4,568	17,403
93	Washington.....	35,782	5,072	2,561	10,150	450
94	Wayne.....	12,373	4,488	1,223	4,212	27,354
95	Webster.....	100,082	17,830	6,453	48,430	150
96	Winnebago.....	14,082	3,998	1,339	8,595	21,054
97	Winneshiek.....	34,247	8,278	3,271	21,054	1,044
98	Woodbury.....	670,166	75,007	26,095	552,069	15,415
99	Worth.....	6,828	1,742	1,187	2,844	1,055
100	Wright.....	13,289	5,004	2,179	6,106	

CONTINUED.

by Counties: 1900.

RUNNING NUMBER.	COST OF MATERIAL USED.			Value of products including custom work and repairing.
	Total.	Principal materials including mill supplies and freight.	Fuel and rent of power and heat.	
51				
52	\$ 430,250	\$ 416,653	\$ 13,597	\$ 990,950
53	207,453	281,054	15,799	549,829
54	805,459	847,830	17,690	1,675,869
55	780,735	762,895	17,840	1,120,538
56	290,050	277,941	12,109	583,695
57	465,582	445,297	11,285	600,040
58	3,090,150	3,080,399	7,150	5,907,571
59	9,513,605	9,399,815	113,790	13,032,423
60	152,820	148,131	4,689	208,390
61	181,466	176,830	4,636	377,501
62	396,244	300,060	5,275	446,012
63	112,739	109,869	2,870	258,364
64	560,120	546,837	19,283	1,198,227
65	244,775	237,570	7,196	460,551
66	3,392,079	3,265,085	126,994	5,086,235
67	152,110	146,151	5,959	305,208
68	499,716	483,800	6,916	661,201
69	94,019	89,007	4,412	188,098
70	169,141	165,780	3,352	278,737
71	374,623	362,721	3,352	658,017
72	3,913,909	3,879,744	34,365	6,038,823
73	503,540	488,220	15,320	886,414
74	60,333	61,828	2,505	121,624
75	454,067	437,760	16,007	812,979
76	499,881	450,310	10,571	675,073
77	873,352	853,393	19,959	1,223,241
78	184,000	176,392	7,608	320,711
79	5,173,612	4,996,193	177,419	10,856,686
80	1,491,793	1,444,871	46,892	3,029,528
81	579,308	527,953	9,355	1,192,863
82	80,082	77,384	3,398	169,495
83	341,303	332,091	9,248	569,494
84	6,921,917	6,722,617	199,300	11,780,441
85	179,430	171,271	8,165	280,954
86	501,770	487,806	13,970	778,244
87	401,052	389,124	12,528	666,552
88	320,798	309,074	10,724	662,029
89	227,212	220,454	6,758	376,153
90	469,511	458,164	11,347	879,288
91	424,728	415,800	8,928	717,314
92	7,169,468	7,116,026	58,562	9,281,773
93	240,496	235,654	4,842	384,588
94	368,528	356,573	11,955	660,501
95	179,421	172,571	6,850	310,797
96	1,041,381	978,629	62,752	1,813,499
97	418,685	409,153	9,532	589,652
98	779,112	705,506	13,540	1,177,667
99	10,882,905	10,694,451	188,542	15,801,189
100	262,794	256,041	6,643	353,302
	370,206	356,441	13,765	621,508

## IOWA.

TABLE No. 3.—Comparative summary 1850, to 1900, with per cent of increase for each decade.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900.	1890.	1880.	1870.	1860.	1850.	1890. to 1900.	1880. to 1890.	1870. to 1880.	1860. to 1870.	1850. to 1860.
Number of establishments.....	14,819	7,440	6,921	6,566	1,939	522	99.2	7.5	5.4	238.6	271.5
Capital.....	\$102,733,103	\$77,513,097	\$33,987,886	\$22,420,183	\$7,247,130	\$1,292,875	32.5	128.1	51.6	809.4	460.5
Salaries.....	5,664	8,137	28,372	25,032	6,307	1,707	117.7	14.7	79.9	13.3	296.9
Wage earners, average number.....	\$4,486,117	\$5,449,377	\$9,725,062	\$6,893,292	\$1,922,417	\$473,016	17.1	110.5	41.1	258.6	269.5
Total wages.....	\$23,931,680	\$20,420,620	\$25,282	\$23,395	\$6,162	\$1,087	9.5	74.2	8.5	280.9	264.1
Men, 16 years and over.....	\$8,417	\$44,210	\$10,232,655	\$951	\$165	\$20	59.1	262.2	50.5	476.4	725.0
Wages.....	\$21,893,953	\$8,248	\$1,431	\$951	\$165	\$20	70.5	14.8	5.4	127.3	269.5
Women, 16 years and over.....	\$1,764,786	\$999,806	\$1,559	\$686			38.4				
Wages.....	\$1,888	\$1,644					39.4				
Children, under 16 years.....	\$272,911	\$197,159					27.0	62.8	75.9	221.4	265.4
Wages.....	\$7,988,797	\$5,738,260	\$48,704,311	\$27,682,096	\$8,612,259	\$2,356,881	31.6	76.0	52.7	233.1	293.4
Miscellaneous expenses.....	\$101,170,357	\$79,292,407									
Cost of materials used.....											
Value of products, including custom work and repairing.....	164,617,877	125,049,183	71,045,026	46,574,322	13,971,185	3,551,783					
Total population.....	2,231,853	1,911,806	1,624,615	1,194,020	674,913	192,214	16.7	17.7	36.1	76.9	251.1
Wage-earners engaged in manufactures.....	58,553	51,037	28,372	25,032	6,307	1,707	14.7	79.9	13.3	296.9	269.5
Per cent of total population.....	2.6	2.7	1.7	2.1	.9	.9	18.8	24.8	31.2	51.6	853.5
Assessed value of real estate.....	\$440,769,952	\$370,921,440	\$297,254,342	\$226,610,638	\$149,433,423	\$15,672,334	39.4				
Value of land and buildings invested in manufactures.....	30,255,521	21,697,899									
Percent of assessed value.....	6.9	5.9									

\* Includes proprietors and firm members, with their salaries, number only reported in 1900. See table 5.

† Not reported separately.

‡ Decrease.

§ Net reported.

As given for the year 1900 in Dana's supplement "State and City" to the *Commercial and Financial Chronicle* under date of April 13, 1901.

¶ Does not include value of rented property.

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TABLE No. 4.—Summary for all Establishments.

CLASSES.	Number of establishments.	Capital.	Proprietors and firm members.	WAGE-EARNERS.		Miscellaneous expenses.	COST OF MATERIALS USED.				Value of products, including custom work and repairing.
				Average number.	Total wages.		Total.	Purchased in raw state.	Purchased in partially manufactured form.	Fuel, freight, etc.	
Total.....	18,420	\$104,343,592	20,571	59,367	\$23,988,057	\$8,683,729	\$101,667,061	\$53,240,444	\$44,560,901	\$3,865,716	\$165,776,791
Hand trades*.....	6,924	\$8,722,661	8,051	11,088	\$4,631,330	\$1,269,740	\$9,931,978	\$120,423	\$9,429,121	\$382,434	\$22,166,774
Educational, eleemosynary and penal institutions.....	21	169,690	104	55	18,476	11,671	194,741	12,898	170,639	11,204	261,344
Establishments with a product of less than \$500.....	3,589	1,440,799	3,848	759	37,901	83,291	301,963	28,734	271,430	1,799	\$97,570
All other establishments.....	7,895	94,010,442	8,568	47,405	\$19,320,350	\$6,719,027	\$91,238,379	\$53,078,389	\$34,689,711	\$3,470,279	\$142,451,103

\* Bicycle and tricycle repairing, 130; blacksmithing and wheelwrighting, 2,428; boots and shoes, custom work and repairing, 475; carpentering, 740; clothing, men's, custom work and repairing, 550; clothing, women's, dressmaking, 201; dyeing and cleaning, 31; furniture, cabinet making, repairing and upholstering, 103; lock and gunsmithing, 41; masonry, brick and stone, 170; millinery, custom work, 926; painting, house, sign etc., 338; paper hanging, 28; plastering and stucco works, 58; plumbing and gas and steam fitting, 196; sewing machine repairing, 9; typewriter repairing, 1; watch clock and jewelry repairing, 482.

IDLES.—77 establishments with a capital of \$1,293,220

## IOWA.

TABLE No. 5.—Comparative summary of ten leading industries.

INDUSTRIES.	Year.	Number of establishments.	Capital.	WAGE-EARNERS.		Miscellaneous expense.	Cost of materials used.	Value of products including custom work and repairing.
				Average Number.	Total wages.			
Total for selected industries for state.....	1900	3,763	\$ 48,008,670	21,611	\$8,883,651	\$ 2,814,002	\$ 64,303,185	\$89,703,303
	1890	2,572	46,407,079	24,955	9,508,768	2,915,253	53,885,820	75,278,082
Increase 1890 to 1900.....		1,191	1,601,591	3,344	625,117	101,251	10,417,365	14,425,221
Per cent of increase.....		46.3	3.5	13.4	6.6	3.5	19.3	19.2
Per cent of total of all industries in state.....	1900	25.4	46.7	30.9	37.1	35.2	63.6	54.5
	1890	34.6	59.9	48.9	49.5	50.9	68.0	60.2
Carriages and wagons.....	1900	211	\$ 4,087,400	1,692	\$ 713,901	\$ 243,794	\$ 1,863,988	\$ 3,931,067
	1890	294	2,765,207	1,602	750,923	142,230	1,449,922	3,168,545
Cheese, butter and condensed milk factory product.....	1900	907	3,459,017	1,133	588,653	153,990	13,501,556	15,846,077
	1890	497	2,074,177	2,355	944,895	121,160	8,360,689	10,545,182
CLAY PRODUCTS:								
Total.....	1900	356	3,437,613	2,220	862,159	149,459	547,580	2,224,920
	1890	289	2,114,863	2,788	724,999	108,034	332,393	1,775,165
Brick and tile.....	1900	339	3,070,355	1,986	768,860	115,807	400,313	1,970,323
	1890	260	1,802,942	2,543	628,588	84,811	282,431	1,537,860
Pottery, terra cotta and fire clay products.....	1900	17	361,258	234	93,899	24,562	57,297	248,597
	1890	29	311,021	245	96,411	24,123	49,962	237,275
Flouring and grist mill products.....	1900	762	6,421,078	1,285	526,479	304,050	11,272,217	13,823,083
	1890	441	6,666,759	1,248	507,414	303,993	9,780,174	11,833,737
Food preparations.....	1900	16	2,501,521	699	209,031	190,297	2,388,003	3,604,031
	1890	8	579,866	147	59,304	35,700	706,739	900,811
Foundry and machine shop products.....	1900	190	3,732,774	2,372	1,088,312	200,918	2,189,660	4,460,914
	1890	126	3,032,277	2,142	1,000,715	177,788	1,454,164	3,432,360
Lumber and timber products.....	1900	264	8,762,219	2,703	1,046,181	342,386	6,324,034	8,677,058
	1890	143	17,530,335	6,819	2,101,648	639,890	7,960,286	12,050,302
Lumber planing mill products, including sash, doors and blinds.....	1900	65	3,576,305	2,372	983,624	255,079	3,195,243	5,295,546
	1890	40	3,044,145	1,993	825,435	182,242	2,062,125	3,588,856
PRINTING AND PUBLISHING:								
Total.....	1900	1,025	5,679,390	4,248	1,656,844	533,937	1,494,260	6,145,503
	1890	699	4,084,430	3,299	1,385,680	621,545	1,118,105	4,551,548
Book and job.....	1900	115	976,344	855	345,665	89,247	411,711	1,210,110
	1890	50	582,720	442	162,405	74,085	254,341	732,925
Newspapers and periodicals.....	1900	910	4,703,049	3,393	1,311,179	444,690	1,082,549	4,935,453
	1890	643	3,501,710	2,854	1,203,185	547,400	863,704	3,818,623

## SLAUGHTERING:

Total.....	1900	27	6,351,353	2,887	1,208,107	441,986	21,556,644	25,695,044
	1890	29	4,485,020	2,575	1,122,605	526,795	20,655,223	23,425,570
Slaughtering and meat packing, wholesale.....	1900	20	6,264,578	2,874	1,201,681	437,103	21,195,066	25,290,518
	1890	25	4,105,020	2,013	862,075	452,147	17,375,828	19,015,386
Slaughtering, wholesale, not including meat packing.....	1900	7	86,775	13	6,486	4,884	301,578	368,526
	1890	4	390,000	563	260,620	74,618	3,279,395	3,810,190

## IOWA.

TABLE NO. 6.—Urban Manufactures.

	Number of establishments.	CAPITAL.	Proprietors and firm members.	WAGE-EARNERS.		Miscellaneous expenses.	Cost of materials used.	Value of products including custom work and repairing.
				Average number.	Total wages.			
Total for state.....	14,819	\$102,733,103	16,619	58,553	\$ 23,931,680	\$ 7,988,767	\$101,170,357	\$164,565,377
Total for Urban manufactures.....	5,408	\$ 77,012,586	6,011	44,457	\$ 18,436,261	\$ 6,453,682	\$ 71,820,352	\$118,419,009
Belle Plaine.....	41	\$ 80,742	55	134	\$ 58,338	\$ 8,819	\$ 122,413	\$ 232,581
Boone.....	114	400,260	140	679	315,833	28,725	471,794	975,645
Burlington....	340	5,235,624	358	2,597	1,013,098	414,819	2,809,536	5,334,199
Cedar Falls.....	67	658,665	75	315	123,690	55,380	678,000	1,049,557
Cedar Rapids.....	241	6,256,801	281	3,108	1,313,821	518,455	8,069,992	12,715,897
Centerville.....	54	173,910	59	203	82,667	14,695	186,272	341,166
Chariton.....	46	120,090	52	175	64,837	12,068	155,346	323,900
Charles City.....	61	288,313	73	185	77,479	15,021	231,804	433,985
Clarinda.....	44	126,766	52	84	33,449	9,434	97,158	179,990
Clinton.....	224	4,537,300	208	3,080	1,137,019	370,141	4,247,057	6,939,473
Council Bluffs.....	198	1,176,408	213	1,179	609,905	160,871	1,224,814	2,599,530
Cresco.....	55	135,030	69	99	34,910	7,554	168,183	294,772
Creston.....	103	398,925	105	417	177,470	29,743	344,910	688,739
Davenport.....	416	10,774,707	450	4,348	1,892,737	855,397	6,854,077	11,573,670
Decorah.....	85	318,540	97	173	75,619	23,762	221,213	443,345
Des Moines.....	494	7,911,704	514	4,557	1,942,509	894,691	4,975,568	10,438,689
Dubuque.....	400	8,117,358	520	5,503	2,012,153	1,028,245	5,930,017	10,952,204
Fort Dodge.....	88	903,834	88	527	224,124	38,642	793,266	1,203,395
Fort Madison.....	33	1,540,574	75	965	499,351	95,455	879,482	1,737,854
Grimmell.....	81	812,940	102	334	145,664	37,045	426,632	1,004,642
Independence.....	57	312,405	56	159	57,375	14,766	163,291	314,179
Iowa City.....	129	1,063,969	136	680	299,084	80,077	781,780	1,511,005
Keokuk.....	188	2,103,335	197	1,663	614,580	106,578	1,882,227	3,600,047
LeMars.....	69	555,662	73	199	85,816	52,658	690,859	956,680
Mason City.....	80	351,868	103	376	167,211	21,013	330,110	705,460
Marion.....	55	113,070	69	78	35,066	9,027	117,978	214,545
Marshalltown.....	147	5,866,270	170	1,399	654,227	190,554	3,120,658	4,587,249
Muscatine.....	247	3,725,971	295	2,835	1,055,904	212,793	3,773,379	5,791,110
Newton.....	86	443,133	106	311	121,831	44,768	244,402	666,727
Oelwein.....	37	614,599	41	511	279,022	10,081	337,360	674,637
Osage.....	37	82,090	45	67	29,846	6,795	120,174	202,404
Oskaloosa.....	143	552,239	171	587	262,228	67,753	490,982	1,063,582
Ottumwa.....	160	3,403,321	188	2,094	804,215	200,673	7,093,068	9,129,860
Shenandoah.....	56	210,623	65	213	87,078	12,070	200,213	382,742
Sioux City.....	329	5,691,644	376	3,104	1,485,066	664,486	10,669,672	15,469,707
Vinton.....	93	198,237	81	231	70,001	31,884	266,150	440,131
Waterloo.....	147	1,287,056	142	1,041	471,608	81,642	1,555,578	2,499,363
Webster.....	33	348,455	36	201	78,297	16,863	188,170	415,166
Whatcheer.....	41	138,408	51	58	25,927	6,578	93,167	184,435
Total for state exclusive of Urban manufactures.....	9,411	\$ 25,720,517	10,608	14,096	\$ 5,495,419	\$ 1,535,085	\$ 29,850,005	\$ 46,146,368
Per cent of urban manufactures to total for state.....	36.5	75.0	36.2	75.9	77.0	80.8	71.0	72.0

## BULLETIN OF MANUFACTURERS.

The following is a summary of the manufacturing industries of the state of Iowa and the cities of Burlington, Cedar Rapids, Clinton, Council Bluffs, Davenport, Des Moines, Dubuque and Sioux City in that State, according to the official returns of the twelfth census:

## IOWA.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	14,819	7,440	99.2
Capital.....	\$102,733,103	\$ 77,513,097	32.5
Wage-earners, average number ..	58,553	51,037	14.7
Total wages.....	\$ 23,931,680	\$ 20,429,620	17.1
Miscellaneous expenses.....	7,988,767	5,732,206	39.4
Cost of materials used.....	101,170,357	79,292,407	27.6
Value of products, including custom work and repairing.....	164,617,877	125,049,183	31.6

## BURLINGTON.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	340	223	52.5
Capital.....	\$ 5,235,624	\$ 3,963,986	32.1
Wage-earners, average number ..	2,597	2,935	*11.5
Total wages.....	\$ 1,013,998	\$ 1,157,414	*12.4
Miscellaneous expenses.....	414,819	259,615	59.8
Cost of materials used.....	2,809,536	3,099,200	*9.3
Value of products, including custom work and repairing.....	5,334,195	5 413,138	*1.5

\*Decrease.

## CEDAR RAPIDS.

	1900.	*1890.	Per Cent. of Increase.
Number of establishments.....	241		
Capital.....	\$ 6,256,801		
Wage-earners, average number ..	3,105		
Total wages.....	\$ 1,313,821		
Miscellaneous expenses.....	518,455		
Cost of materials used.....	8,969,992		
Value of products, including custom work and repairing.....	12,715,897		

\*Not separately reported at the census of 1890.

## CLINTON.

	1900.	*1890.	Per Cent. of Increase.
Number of establishments.....	224		
Capital.....	\$ 4,527,200		
Wage-earners, average number ..	3,080		
Total wages.....	\$ 1,137,019		
Miscellaneous expenses.....	370,141		
Cost of materials used.....	4,247,057		
Value of products, including custom work and repairing.....	6,939,473		

\*Not separately reported at the census of 1890.

## COUNCIL BLUFFS.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	198	128	54.7
Capital.....	\$ 1,176,408	\$ 1,292,283	*9.0
Wage-earners, average number ..	1,179	1,469	*17.7
Total wages.....	\$ 609,905	\$ 701,723	*13.1
Miscellaneous expenses.....	150,871	92,886	73.2
Cost of materials used.....	1,224,814	1,272,946	*3.8
Value of products, including custom work and repairing.....	2,596,830	2,527,388	2.7

\*Decrease.

## DAVENPORT.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	416	475	*12.4
Capital.....	\$ 10,774,707	\$ 8,732,122	23.4
Wage-earners, average number..	4,348	4,461	*2.5
Total wages.....	\$ 1,892,737	\$ 1,640,495	15.4
Miscellaneous expenses.....	855,397	780,201	9.6
Cost of materials used.....	6,854,677	6,098,349	12.4
Value of products, including custom work and repairing.....	11,573,670	10,357,232	11.7

\*Decrease.

## DES MOINES.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	494	330	49.7
Capital.....	\$ 7,911,764	\$ 3,877,140	104.1
Wage-earners, average number..	4,557	3,420	33.2
Total wages.....	\$ 1,942,509	\$ 1,631,107	19.1
Miscellaneous expenses.....	894,691	442,162	102.3
Cost of materials used.....	4,975,568	4,408,377	12.9
Value of products, including custom work and repairing.....	10,453,189	7,931,272	32.2

## DUBUQUE.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	460	262	75.6
Capital.....	\$ 8,117,358	\$ 7,016,802	15.7
Wage-earners, average number..	5,508	4,198	31.1
Total wages.....	\$ 2,012,153	\$ 1,715,876	17.3
Miscellaneous expenses.....	1,028,245	566,377	82.2
Cost of materials used.....	5,930,017	5,984,431	*1.0
Value of products, including custom work and repairing.....	10,952,204	9,894,860	10.7

\*Decrease.

## SIOUX CITY.

	1900.	1890.	Per Cent. of Increase.
Number of establishments.....	329	196	67.9
Capital.....	\$ 5,691,644	\$ 5,222,626	9.0
Wage-earners.....	3,104	2,629	18.1
Total wages.....	\$ 1,485,066	\$ 1,520,576	*2.3
Miscellaneous expenses.....	664,486	494,489	34.4
Cost of materials used.....	10,669,672	10,295,190	3.6
Value of products, including custom work and repairing.....	15,469,702	14,119,843	9.6

\*Decrease.

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WAGE EARNERS OF IOWA.

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## WAGE EARNERS STATISTICS.

This inquiry into the condition of the wage earners of the state as required by section 2470, was made largely through the medium of the mails and also through personal solicitation.

The inquiry was of an exhaustive character and intended to cover every branch of industrial activity, or at least give an opportunity to the varied sub-divisions of laborers to report as the questions applied to their class of employment. While the returns in general are replete with a fund of unsurpassed information in this direction, yet it has been found that many of the returns were confusing and worthless and it is suggested that in future any researches of this character could be more profitably undertaken if separate schedules were framed to suit that distinct trade or craft, and they would then, it is believed, meet with a more general response.

Copy of letter and blank with which the investigation was made, is as follows:

## WAGE-EARNERS OF IOWA.

## INDIVIDUAL STATEMENT.

STATE OF IOWA,

BUREAU OF LABOR STATISTICS,

DES MOINES, IOWA,

DEAR SIR—The Commissioner of the Bureau of Labor Statistics of Iowa is authorized by law (chapter 8, section No. 2470, revised code of 1897), to collect individual statements from the wage-earners of the state, and the law requires that in his "biennial report he shall give a statement of the business of the bureau since the last regular report, and shall compile and publish therein such information as may be considered of value to the industrial interests of the state, the number of laborers and mechanics employed, the number of apprentices in each trade, with the nativity of such laborers, mechanics' and apprentices' wages earned, the savings from the same; with age and sex of laborers employed, the number and character of accidents, the sanitary condition of institutions where labor is employed, the restrictions, if any, which are put upon apprentices when indentured, the proportion of married laborers and mechanics who live in rented houses, with the average annual rental and the value of property owned by laborers and mechanics; and he shall include in such report what progress has been made

with schools now in operation for the instruction of students in the mechanic arts and what systems have been found most practical, with details thereof."

Please fill out as completely as possible, as it applies to your case. The facts you give will be published in report of 1899 and 1900. Your name will not be mentioned without your express authority.

Yours truly,

C. F. WENNERSTRUM,  
Commissioner.

#### FORM OF WAGE EARNER'S BLANK.

##### NATIVITY.

1. Name ..... P. O. Address .....
- Age ..... Male ..... Female .....
2. Married ..... Single ..... Where born, county .....
- State ..... Foreign country .....

##### EMPLOYMENT, EARNINGS AND INCOME.

3. What is your present occupation? .....
4. What is your trade or profession? .....
5. If not employed at it now state in full .....
6. How many situations did you have in 1899? .....
7. Reasons for changing? .....
8. How many days were you idle in 1899? ..... Reasons .....
9. Compared with 1896, have your wages increased? ..... Or decreased? .....
- Compared with 1898, have your wages increased? ..... Or decreased? .....
10. What per cent? .....
11. What wages did you receive in 1899? Per hour .....; per week .....; per month .....; per ton .....; per mile .....; for piecework .....; (Only fill out space upon which your wage-rate is based.)
- Where work was done by piece, ton or mile, what were your average earnings per day? \$ .....
12. Total wages received for your labor during 1899? \$ .....
- Income from other sources exclusive of your own wages for 1899 (garden, rent, pension and wages of other members of your family, etc.), \$ .....; grand total income from all sources, including wages for 1899, \$ .....
13. On what railroad system are you employed? .....
14. What is the length of the regular division over which you run? .....
15. What is the average number of miles you made per month during 1899? .....
16. Are you working under the demerit system or the time-losing system for offenses? .....
- Which do you prefer? ..... Why? .....
17. What is the length of your work day? .....
- If 8 hours, how was it established? .....
- Do you favor a universal 8-hour day? ..... How could it be obtained? .....
18. Do you get an extra rate of pay for overtime? .....
- Rate per hour for overtime? .....
19. Do you work 8. indays? ..... Could your business be run without Sunday work? ..... State why or why not .....

##### ORGANIZATION.

20. Is there a trade union of your craft? ..... Are you a member? .....
- Why or why not? .....
21. Are your employers organized in what is called a trust? ..... Under what name? .....
- Have you benefitted in consequence? ..... Have you suffered? ..... How? .....
- Do you have steadier employment? .....
22. Are you free to act and express yourself in favor of organization without fear of losing your employment? .....
- Do they recognize your union committees? .....
- What has your union asked for? .....
- Results? .....

##### MACHINERY.

23. Has labor saving machinery entered your business? .....
- Has it thrown any persons out of employment? .....
- Has it helped you? ..... Or injured you? .....
- Does your craft control the machine by rules and regulations? .....
- To what extent? .....
24. How should the machine in your shop be controlled in the interest of the laborer? .....
- Does the operation of the machine improve your interest as a wage-earner or does it injure it? .....
25. How many accidents from machinery occurred to persons operating them in your shop in 1899? .....
- How could they have been prevented? .....

##### APPRENTICES.

26. In your trade does the apprentice system still exist? .....
- If so, are they legally or verbally indentured? .....
- What regulations govern their number in your trade? .....
- What restrictions are placed upon them individually? .....
- Does an apprentice have the opportunity to learn the trade thoroughly under your rules? .....

##### FEMALE AND CHILD LABOR.

27. In your trade do you compete with female or child labor? .....
- Which? ..... To what extent? .....
- Do females perform as much labor and receive as much pay as males? .....
- Are the females organized? .....
- Name organization .....

##### SAFETY AND SANITATION.

28. Is your employment dangerous? ..... Or unhealthful? .....
- If so, how? .....
- How could it be improved by legislation? .....
- Are your sanitary surroundings healthful? .....
- Are separate water closets provided for both sexes? .....

## EDUCATION.

29. If head of family, how many children have you of school age?.....  
 Males?.....Females.....How many attend school?—  
 Male.....Female.....If not attending, why?.....  
 What schools in your locality instruct in the use of tools?.....  
 What systems have been found most practical?.....

## EXPENSE, INSURANCE AND SAVINGS.

30. How many persons depend on you for support?.....Cost of living for yourself and those dependent on you for year 1899: Food \$....., fuel, \$....., clothing, \$....., sickness, \$....., rent, \$....., total, \$.....  
 31. As compared with 1896, has the cost of your living increased?.....or decreased?.....If so, to what do you attribute the cause?.....  
 As compared with 1898, has the cost of your living increased?.....or decreased?.....  
 32. How much insurance do you carry?  

	AMOUNT CARRIED.	ANNUAL COST.
Old line life, . . . . .	\$.....	\$.....
Fraternal life, . . . . .	.....	.....
Accident, . . . . .	.....	.....
Fire on home, . . . . .	.....	.....
Fire on household goods, . . . . .	.....	.....

33. Do you own a home?.....If so, what is its value? \$.....Is it all paid for?.....If mortgaged, in what amount? \$.....  
 Total amount for taxes and repairs during 1899? \$.....Amount paid for interest during 1899 \$.....  
 34. If you live in a rented house, what rent do you pay per month? \$.....  
 35. Total amount paid out during 1899 for incidentals, such as books, pleasures, church support, etc., other than specified above, \$.....  
 36. Total amount of cash savings for 1899, \$.....

## MISCELLANEOUS.

37. Does convict labor compete with you?.....How should the convict be employed so as to pay for his maintenance and reformation and not conflict with the wage-earners' interests?.....  
 38. What specific legislation would benefit you as a wage-earner at your present employment?.....

## GENERAL REMARKS.

39. ....  
 Date .....

NOTE.—The value of these statistics depends upon the accuracy with which you answer questions pertaining to your condition.

The questions under head of organization and machinery were put with the idea of gaining valuable information, and in response

to requests to investigate the effect of such powerful agencies, the replies do not justify explanation as to the information obtained.

The question of apprentices, although required to be investigated, by section 2470 has been found to be almost an extinct institution; very few trades give it any consideration, and those that do conform to no legal provisions. Bricklayers, plumbers, cigar makers, machinists, printers, and a few other highly organized trades have provisions in their agreements with employers as to the number of apprentices to the shop, and the proportion of apprentices to a specified number of journeymen in such shops, which varies in different crafts, and in some cases provisions are made that such apprentices shall be given an opportunity to learn every specific division of such trade, but beyond that the system has become almost obsolete.

Accidents, safety, sanitation, female and child labor, is treated under Factory Inspection, chapter 1.

Education and manual training is confined to a separate chapter; cost of living is not tabulated, as but few families keep accounts of these important items, most of those who replied stated that it took all they could earn to live.

The wage earners' statistical table, as compiled, embraces hours worked per day, and wages received, showing the average of such trades, in the several localities, with foot notes giving detailed information.

Following the table answers to questions on convict labor and desired legislation, with special remarks, are respectfully submitted by the wage earners for the consideration of the general assembly.

## ANSWERS TO QUESTIONS BY WAGE EARNERS.

*What specific legislation would benefit you? and remarks.*

- BAKER—Eight-hour work day. Abolition of Sunday work.
- BARBER—Need laws to regulate and license the barbers in state.
- BARBER—The barbers intend to introduce another barber bill to regulate the profession.
- BARBER—Abolish the barber colleges and give us a good barber license law.
- BARBER—The legislature should pass a law to compel all barbers to pass a satisfactory examination and be licensed before practicing the barbers' profession.
- BARBER—The passage by legislature of a bill requiring barbers to pass an examination and secure a state license before practicing the profession.
- BARBER—Enact a law requiring all barbers to take an examination and secure a license before working at the barber trade.

11. BARBER—Give us a barber bill.
12. BAKER—Give us a law which will abolish Sunday work.
13. BARTENDER—Legalize the business and remove the many restrictions.
14. BARBER—License the barbers.
15. BLACKSMITH—Government owned railroads would give me all I produce.
16. BLACKSMITH—Suction fans to carry off dust and ventilators to carry off gas and smoke should be compulsory by law.
17. BLACKSMITH—An eight-hour law.
19. BLACKSMITH—Have factories inspected and abuses corrected.
22. BOOKBINDER—Have shops kept in sanitary condition by inspectors.
25. BOOKKEEPER—Give me as a wage earner the opportunity to vote on all laws under the direct legislative system, especially elect United States senators by direct vote.
26. BOOKKEEPER—Direct legislation would benefit all.
27. BOOKKEEPER—Have the union label put on all school books.
28. BOOKKEEPER—Factory inspection, with power to correct evils.
29. BOOKKEEPER—Authorize factory inspection, especially on sanitary conditions.
31. BOILERMAKER—Provide a law to issue inquiries like this once a year to every voter. Make it a misdemeanor if not filled out and returned.
32. BOILERMAKER—A state boiler inspector should be appointed and an eight-hour law established.
33. BOILERMAKER—Direct legislation and strict factory inspection.
34. BRAKEMAN—Legislation to compel railroad companies to equip every car with air brakes, then if train separates the cars would be automatically stopped and danger to brakemen would be reduced.
36. BRAKEMAN—Legislation forbidding the use of two locomotives coupled to same train; and a law restricting the number of cars in train to a given number of brakemen.
37. BRAKEMAN—Compulsory arbitration. Abolish double headers. Strict enforcement of law forbidding the running of light engines over roads without pilots. (What law?)
38. BRICKLAYER—Enactment of an eight-hour law.
39. BRICKLAYER—Enactment of an eight-hour law; compelling contractors to work their employees only eight hours a day on all state work and supplies for state.
40. BRICKLAYER—Compulsory education. Restriction of child labor and young women in factories to the exclusion of men who are often compelled to be idle while the children support the fathers.
43. BROOM MAKER—Factory inspection is what we want.
44. BROOM MAKER—Compulsory education and prevent child labor until they are fourteen years of age.
45. BROOM MAKER—Child labor laws are needed in Iowa.
46. BUTTON WORKER—Stop convicts cutting button blanks for contractors.

48. BUTTON CUTTER—Direct legislation, factory inspection and government control of public utilities.
49. BUTTON CUTTER—Legislation is desirable against the contract system of convict labor at Fort Madison. Cooperative industries should be encouraged.
50. BUTTON CUTTER—An eight-hour law and factory inspection to regulate child labor and sanitary conditions.
51. CARPENTER—A state eight-hour law and a labor commissioner with authority.
53. CARPENTER—Harmonize society by means of public ownership.
54. CARPENTER—Abolish the convict contract labor system; establish an eight-hour day for state work.
55. CARPENTER—Enact a law so that wages will become a first lien.
59. CARPENTER—Labor commissioner with authority to keep children out of factories.
61. CARRIAGE MAKER—Regulation of child labor in factories by factory inspector.
65. CIGAR PACKER—Child labor regulation.
66. CIGAR MAKER—Enactment and enforcement of child labor laws.
67. CIGAR MAKER—Child labor laws and factory inspection is most needed.
72. CIGAR MAKER—Child labor laws are needed by cigar makers.
76. CLERK, RETAIL—Legislation against child labor; close all stores on the Sabbath and legal holidays by enactment.
77. CLERK, RETAIL—Compulsory Sunday closing of all business houses, including drug stores, cigar shops, fruit stands, barber shops, pawn shops, and make the Sabbath a day of rest.
80. CLERK, SHIPPING—Lower the legal rate of interest in the state.
81. CLERK, RETAIL—Keep all children in school until they have sufficient education to demand living wages. If fewer children were employed and more fathers, poverty would not stare so many in the face.
83. CLERK, RETAIL—Compulsory education of all children, and prohibit their employment under fifteen years of age by authority of Labor Commissioner.
85. CLERK, JEWELRY—An eight-hour state law, and a good Sunday closing law.
87. CLERK, RETAIL—Enforcement of law relative to seats for women clerks. Enactment and enforcement of laws for Sunday observance. Prohibition of child labor and compulsory closing of stores and factories on legal holidays.
88. CLERK, RETAIL—An eight-hour state law, and prohibition of Sunday work.
93. CONDUCTOR, R. R.—Shorter hours for railroad men; abolition of double headers or two locomotives coupled on one train.
94. CONDUCTOR, R. R.—An eight-hour day for railroad men. Limit freight trains to fifty cars, and allow three brakemen and conductor on all trains with over forty cars.
95. CONDUCTOR, R. R.—A law is required, allowing railroad men to work only twelve consecutive hours, as a maximum, and then permit them to have eight hours rest before resuming work.

97. CONDUCTOR, R. R.—Direct legislation.
98. CONDUCTOR, R. R.—Stop double header trains, and enact a law so that eight hours shall be the maximum schedule for a man to be on the road, and then have twelve hours off before going back to work.
99. COOPER—Prohibit formation of trusts and combines and make eight hours a maximum work day. Compel employers to provide well ventilated shops.
100. COOPERS—Compulsory education, and prohibition of child labor.
101. COOPER—Compulsory education and enforce it to the letter, so that heads of families may have opportunities to be the bread winners.
103. ELECTRICIAN—Enact laws for safe insulation of electric wires and provide for their inspection.
105. ELECTRICIAN—Intelligent inspection of all electrical construction is required for the sake of safety.
106. ELECTRICIAN—State examination and certificate granted to electricians, and strict observance of electrical laws. This inquiry is a "capital idea."
107. ELECTROTYPYPER—An eight hour law is the first essential.
109. ENGINEER—Abolish double headers.
110. ENGINEER—Election of United States senators by popular vote, and compulsory returns of all wage earners on blanks like this annually.
111. ENGINEER—Enact laws making it a criminal offense for the employer to keep employes on continuous duty too long without food or sleep. A practical locomotive engineer should be appointed to inspect engines and appliances, and investigate conditions under which locomotive engineers have to work.
112. ENGINEER—Government ownership of Railroads and Telegraphs.
113. ENGINEER—The labor commissioner should be given power to enforce all labor laws. We want the abolition of light engines being run over the road backwards, without rear-pilots and rear-lights, especially at night. It is very dangerous. All light engines should carry an extra man as pilot for safety.
114. ENGINEER—All labor laws are inoperative unless labor commissioner is given power to enforce them. Enact laws providing extra man for pilot on light engines, and stop running light engines backwards without head-lights.
116. ENGINEER—Make the maximum days labor for engine men twelve out of every twenty-four hours. A man working twenty to forty consecutive hours is in no physical condition to care for the public interest, he may stand it for awhile but accidents will certainly happen under such strain.
117. ENGINEER—A railway company should be compelled by law to care for an employe and family after he becomes disabled while on duty. Sunday labor should be stopped and eight hours rest assured out of every twenty-four.
118. ENGINEER—Stop double headers and running engines backward. This is the best move yet by the commissioner of labor.
119. ENGINEER—All engineers should pass a state examination and secure a license.
121. ENGINEER—A strict state license law for all engineers.

123. FIREMAN—Double headers should be stopped by law.
124. FIREMAN—Labor legislation is loaded with amendments so that it means nothing.
125. FIREMAN—Prohibit double heading of locomotives on trains and put two firemen on the very large engines.
126. FIREMEN—Legislation is needed to regulate the hours of railroad men, the length of divisions, and to prohibit the running of light engines backwards without pilots.
128. FIREMEN—One of the greatest dangers a fireman is exposed to is running light engines backwards without pilots, which could be helped by legislation.
132. FIREMAN—(Stationary)—Any legislation that will investigate our condition and produce beneficial results, from long hours, Sunday work, low wages, and insufficient ventilation.
133. } HARNESMAKERS—A universal eight hour law is the first thing  
134. }  
135. } needful.
138. HORSESHOER—A horseshoer should have a state certificate of competency and then be personally responsible for his work. All shoeing done on a horse should be a perpetual lien until paid.
140. LABORER—All assessments for improvements to city property should be collected and in city treasury before work is contracted for. It would enable many laboring men to own a home who do not attempt to get one under the present system.
143. LABORER (FARM)—A law limiting any man to own over 160 acres and a shorter day for farm laborers.
146. MACHINIST—Laws eliminating profits, interest, taxes and rent.
147. MACHINIST—Stop government of strikes by injunction and establish an arbitration board.
154. MACHINIST—Anti-child labor laws and stricter factory inspection.
155. MACHINIST—Public ownership of large corporations.
157. MACHINIST—First, give us a strict Sunday labor law. Second, enlarge the power of the Bureau of Labor Statistics.
159. MACHINIST—Local option in methods of taxation, and strict factory inspection with authority to enforce safe and sanitary conditions by inspectors.
164. MINER—Non-partisan board of mine examiners. Compulsory education. Prohibit boys working in mines until they attain the age of 14.
165. MINER—More strict inspection of mines. State ownership of mines.
168. MINER—Enforcement of mine inspection laws and election of mine inspectors.
169. MINER—Have the gypsum mines included under the state coal mining laws.
170. MINER—Better screen laws. At present the miner gets nothing for mining nut, pea and steam coal and the companies get good prices for it.
171. MINER—Establish a state board of arbitration, to whom all disputes should be referred.
173. MINER—Make the wealthy pay taxes at same rate as I pay on my little home.

175. MINER—Election of mine inspectors by popular vote.  
 176. MINER—More cubic feet of air per miner. Operators to furnish shot firers. My wage of \$310 exceptionally good this year, as work was plenty.  
 179. MINER—Give the mine inspectors more power and pass a law to abolish the company stores, which compel a man to buy of them at big prices in order to get a job.  
 183. MOLDER—Nothing under present administration.  
 185. MOTORMAN—Street railroads should be owned and operated by the city. The employes would then get better treatment.  
 186. MOTORMAN—A Sunday observance law.  
 189. PAINTER—I believe in trusts, but think they should be controlled by the people for the people.  
 194. PAINTER—Sound money. Republican principles carried through.  
 196. PAINTER—A state insurance and accident department and a state eight-hour law.  
 198. PAINTER—An eight-hour law is badly needed.  
 200. PAINTER—Many things needed, but eight-hour law most important.  
 202. PATTERNAKER—Compulsory factory inspection.  
 205. PLUMBER—City ordinances governing plumbing, heating and ventilation.  
 207. PLUMBER—Enact laws for adequate sanitation.  
 213. PRINTER—Factory inspection, and the placing of the union label on all state documents.  
 214. PRINTER—Government ownership of all means of production and distribution.  
 215. PRINTER—Abolish all forms of taxation except a single tax on land values. No specific legislation; what would benefit me would injure some one else.  
 221. PRINTER—This inquiry is a step in the right direction.  
 227. REPORTER—Restrict people following employments until they comply with specific educational qualifications like lawyers and doctors.  
 230. TAILOR—Poor ventilation, unsanitary condition of work rooms. Factory inspection would remedy it.  
 233. TAILOR—Prohibit the sale of sweat shop goods without such articles are so labeled.  
 234. TAILOR—Ventilated sanitary shops to be provided for tailors by employers.  
 238. TEAMSTERS—City ordinances required by act of legislature to favor home labor in letting of all municipal contracts so our men can be employed.  
 239. TELEGRAPHER—Laws needed to limit a days work to twelve hours and the blessing of a Sunday occasionally.  
 240. TELEGRAPHER—State examination for competency to license telegraph operators, and shorter hours.  
 241. TELEGRAPHER—Government ownership of telegraphs.  
 243. TELEGRAPHER—Twelve to sixteen hours labor, 365 days in the year makes a man want at least a Sunday labor law and government control of all public utilities.  
 244. TELEGRAPHER—Legislation retards industry rather than benefits.  
 246. TELEGRAPHER—Limit a working day to ten or eleven hours.

248. TELEGRAPHER—Government ownership of telegraphs; law requiring certificate of ability.  
 252. TYPEWRITER ADJUSTER—Legal enactment for reduction of hours worked in a day, and strict factory inspection laws, compelling employers to look after welfare of employes.  
 253. TYPEWRITER DRILLER—Compulsory education. Child labor restricted until they reach fifteen years.  
 258. WAITER—Strict factory inspection; with power to remedy unsanitary evils; is no where needed more than in restaurants and kitchens.  
 259. WAITER—Appoint a state sanitary inspector.  
 260. WAITER—Encourage small factories in the state so as to do away with trusts.  
 261. WAITER—Unsanitary condition of restaurants endanger health of employes.  
 262. WOODWORKER—Enact and enforce laws to blow dust away from woodworking machines.  
 263. WOODWORKER—Compulsory education and restriction of child labor.  
 266. WOODWORKER—State factory inspection that would compel our employers to put a floor down, and install dust collectors on machines, ventilate and light the shops properly.  
 267. WOODWORKER—Reduction of hours for days work by state would regulate hours on all other work.  
 268. WOODWORKER—Enact laws to keep child labor out of factories.

# REMARKS BY WAGEEARNERS ON CONVICT LABOR.

How convicts should be employed so that their labor would not conflict with the wage earners' interests to pay for maintenance and aid in their reformation

1. BAKER—Work on public roads, or the state to pay them \$1.50 per day, the same to go to the convict's dependent family, or paid to the convict on expiration of term if no family dependent.
3. BARBER—Manufacture goods for state institutions and use convicts for improving public highways.
4. BARBER—The convicts should be employed by the various counties to build good roads, and the county receiving such benefit to pay costs to state.
8. BARBER—Use them to improve public highways, and to make goods to be used by themselves and other state institutions.
16. BLACKSMITH—Label prison goods as convict made.
22. BOOKBINDER—Let the convicts make goods for state institutions.
23. BOOKKEEPER—Good, hard roads are needed. Put the convicts to work making them.
24. BOOKKEEPER—Employ convicts making good roads at county expense.

25. BOOKKEEPER—Employ convicts according to the proposition of the late Titus bill, on state account. Put his surplus product on market at regular prices, so as to protect the employer and employed. Sentence for life the public man who favors the introduction of a third party, in the shape of a contractor, between the state and the criminal.

26. BOOKKEEPER—Do away with present wage system and lessen the number of criminals.

27. BOOKKEEPER—Concrete or macadamize the public roads by convict labor.

29. BOOKKEEPER—Confine the convict with the object of reformation, and not for profit to state or contractor. Limit his labor to products used by state institutions. Pay convict a percentage of his earnings. Mark all surplus products for open market "*Prison made*."

30. BOILERMAKER—Manufacture products that they need and improve the public highways.

31. BOILERMAKER—Employ convicts to keep prisons clean. Abolish the contract system.

32. BOILERMAKER—Work him on the roads. They need improving.

33. BOILERMAKER—Abolish contract system. Establish state account system.

36. BRAKEMAN—Employ convicts at labor within prison walls, and only to the extent that will cover the expense of confinement.

38.—BRICKLAYER—Work them on the roads.

40. BRICKLAYER—Employ convicts breaking rock and improving public roads.

42. BRICKLAYER—By improving country roads.

43. BROOM MAKER—Stop convicts making brooms, which takes away our living.

44. BROOM MAKER—Stop contract system and establish state use system.

45. BROOM MAKER—Making brooms and brushes in prison hurts our trade.

46. BUTTON WORKER—Employ convicts on country roads.

48. BUTTON CUTTER—Employ convicts on public work and on state account. Prevent his competition in the open market with honest labor.

49. BUTTON CUTTER—Let convicts work on state account and prevent his product coming into the open market on a competitive basis to the injury of free labor. Abolish the contract system of convict labor.

50. BUTTON CUTTER—Improve streets and roads.

51. CARPENTER—Change conditions in society so that we won't have convicts.

53. CARPENTER—Reorganize society on a co-operative basis and convicts will need no reformatory. Competition makes criminals.

58. CARPENTER—Work the convicts on state account or on public roads.

64. CIGAR MAKER—Convict labor would be a benefit to the public if the wage system were abolished and public co-operation established.

65. CIGAR PACKER—Convict labor should be used to provide supplies for state institutions.

66. CIGAR MAKER—Employ convicts to produce commodities for use in state institutions and abolish contracting their labor.

67. CIGAR MAKER—State account system is the most just.

72. CIGAR MAKER—Employ convicts to improve public highways.

75. CLERK, RETAIL—The convict's labor should be utilized to make prisons and state institutions self-supporting and lighten expenses of the tax payer.

76. CLERK, RETAIL—Convicts might make goods for public institutions and improve highways. They should not make any goods for sale in the open market.

77. CLERK, RETAIL—Teach the convict the trade he shows adaptability for so he can earn an honest living when his sentence expires. His food should be scant and his work hard; he deserves punishment.

Prison made goods should not be sold below market prices.

80. CLERK, SHIPPING—Manufacture articles on state account for state use. Abolish the contract system.

81. CLERK, RETAIL—All wages earned by a convict over what it costs to maintain him should be sent his family. If the convict has no family or serving a life sentence it should go to charitable institutions.

83. CLERK, RETAIL—Convict made goods should not be shipped out of the state where manufactured, and should be labeled "*prison made*" so purchasers could not be deceived.

86. CLERK, JEWELRY—Let convicts manufacture only such things as are needed in penitentiaries. Balance of time improve public roads.

87. CLERK, RETAIL—Convicts should build roads, irrigation works, and build, improve and supply state institutions on state account system, improve waterways and all other work that does not place the product on the market to compete with that of free labor.

88. CLERK, RETAIL—First teach the convict a trade if he has none, so he can earn a living on expiration of sentence.

By no means allow him to compete with the labor of the honest citizen.

94. CONDUCTOR, R. R.—Let convicts build good permanent roads.

98. CONDUCTORS—Discharge the contractors and put humane men in charge of convicts.

99. COOPER—We are suffering from convict competition.

100. COOPER—The late Titus bill would be satisfactory to regulate convict labor so they could work for state and county institutions.

101. COOPER—Abolish convict contract labor, employ them according to provisions made in Titus bill so that their labor will supply necessities for state institutions.

102. COOPER—Abolition of contract convict labor; employ convicts building good roads.

103. ELECTRICIAN—The tax payer and wage earner should be protected by the state, the state getting all the product of the convict's labor.

107. ELECTROTYPYPER—Allow convicts to support themselves, but under no circumstances should they compete with free labor.

109. ENGINEER—Employ the convicts supplying the state institutions but not to compete in open market with basket, chair and button makers and reduce their wages by competition with convict made products.

112. ENGINEER—First abolish the wage system; then reform society, which would include the convict; make the convict an economic equal; there could then be no competition between prison and so-called free labor.

118. ENGINEER—Let convicts work for the state and not for a contractor.
119. ENGINEER—Improve public roads and break rock.
125. FIREMAN—Do not employ convicts at all; commit them to solitary confinement and crime will decrease 75 per cent. in ten years.
133. HARNESS MAKER—Leather goods made by convicts in other states injures labor in Iowa for harness makers. Convicts should be made to build good roads.
138. HORSESHOER—Let convicts build good roads, which would be a permanent benefit to society, and deprive no man of an opportunity to labor.
139. LABORER—Abolish the contract system, remove all machinery from prisons, and employ the convicts at hand labor only.
145. LATHER—The present plan is all right.
146. MACHINIST—I would recommend the Elmira system of New York state as the most equitable for convict employment.
149. MACHINIST—Make the convicts produce all they need, but stop their productions from coming into the market to compete with that of free labor.
157. MACHINIST—The Elmira system of penal reform should be instituted. Convicts' products should be consumed by other state institutions.
159. MACHINIST—Employ convicts on state account, per arrangement of Titus bill. The contractor or third party should be excluded from intruding on reformation, his presence is actuated purely for profit and it demoralizes the convict and the state.
- MILLWRIGHT—Employ the convict on what he shows capacity for. Give him a percentage of his earnings when released. This will encourage him while confined, and enable him to reform when free.
163. MILLER—Work the convicts by and for the state and not for contractors.
164. MINER—Let convicts improve the highways.
185. MOTORMAN—Teach convicts a trade and let their work be for state institutions. This plan would reduce taxation on business men and wage earners.
188. PAINTER—Let convicts build good roads in the state, and not let the state sell their labor to a few contractors for 55 cents a day.
196. PAINTER—Let convicts manufacture all such articles as are made by trusts or combinations.
198. PAINTER—Stop convict contracts that compete with free labor.
214. PRINTER—Adopt the New York system. Convicts to make supplies for state institutions only.
215. PRINTER—"The laborer is worthy of his hire," even though he has committed crime. Pay the convict the full amount of the value of his work, less the amount needed to restore what he stole or destroyed.
220. PRINTER—Let the convict make goods for state, not for open market.
227. REPORTER—Convict competition is so insignificant that the prices of commodities or wages are not affected. Teach convicts such work that they may find employment when released.
235. TAILOR—Convicts to manufacture such articles as are used by state institutions only.

253. TYPEWRITER DRILLER—Charge the convict his cost of maintenance, give him the balance of his wages, which should be the market or union rate.

## WAGE EARNERS

Nativity, Occupation, Earnings,

Marginal number.	OCCUPATION.	Locality where employed.	Nativity.	WAGES.		Working hours per day.
				Rate.	Per	
1	Baker.....	Sioux City.....	Wisconsin.....	\$ 0.13	Hour..	12
2	Baker.....	Oskaloosa.....	Germany.....	(b) 15.00	Month..	12
3	Barber.....	Des Moines.....	Illinois.....	12.00	Week..	12
4	Barber.....	Lyons.....	Illinois.....	(f) .65	Cent..	15
5	Barber.....	Burlington.....	Iowa.....	8.00	Week..	12
6	Barber.....	Cedar Rapids.....	Mass.....	10.00	Week..	13
7	Barber.....	Clinton.....	Iowa.....	10.00	Week..	13
8	Barber.....	Des Moines.....	Indiana.....	11.00	Week..	11
9	Barber.....	Oskaloosa.....	Rhode Island.....	9.00	Week..	12
10	Barber.....	Oskaloosa.....	Iowa.....	8.00	Week..	13
11	Barber.....	Oskaloosa.....	Iowa.....	10.00	Week..	13
12	Bartender.....	Oskaloosa.....	Iowa.....	(b) 7.00	Week..	10
13	Bartender.....	Sioux City.....	Iowa.....	9.00	Week..	10
14	Barber.....	Sioux City.....	Wisconsin.....	14.00	Week..	12
15	Blacksmith.....	Missouri Valley.....	Sweden.....	52.00	Month..	10
16	Blacksmith.....	Ottumwa.....	Iowa.....	.25	Hour..	10
17	Blacksmith.....	Ottumwa.....	Iowa.....	52.00	Month..	10
18	Blacksmith.....	Ottumwa.....	Iowa.....	.15	Hour..	10
19	Blacksmith.....	Sioux City.....	Ohio.....	.28	Hour..	9
20	Bookbinder.....	Des Moines.....	Iowa.....	16.00	Week..	9
21	Bookbinder.....	Des Moines.....	Iowa.....	15.00	Week..	9
22	Bookbinder.....	Sioux City.....	Wisconsin.....	8.00	Week..	8
23	Bookkeeper.....	Davenport.....	England.....	90.00	Month..	9
24	Bookkeeper.....	Des Moines.....	Massachusetts.....	60.00	Month..	8
25	Bookkeeper.....	Des Moines.....	South Carolina.....	100.00	Month..	(i) 9
26	Bookkeeper.....	Missouri Valley.....	Iowa.....	9.00	Week..	10
27	Bookkeeper.....	Sioux City.....	Ohio.....	18.00	Week..	10
28	Bookkeeper.....	Sioux City.....	Ohio.....	18.00	Week..	(i) 10
29	Bookkeeper.....	Boone.....	Germany.....	15.00	Week..	10
30	Boilermaker.....	Clinton.....	Illinois.....	2.25	Day..	10
31	Boilermaker.....	Des Moines.....	New York.....	15.00	Week..	10
32	Boilermaker.....	Sioux City.....	Iowa.....	17.00	Week..	10
33	Brakeman.....	Clinton.....	Nebraska.....	.02	Mile..	(i) 10
34	Brakeman.....	Dubuque.....	Wisconsin.....	.02	Mile..	(i) 24
35	Brakeman.....	Mason City.....	New York.....	.02	Mile..	9
36	Brakeman.....	Moulton.....	Missouri.....	.02	Mile..	9
37	Brakeman.....	Burlington.....	Iowa.....	.45	Hour..	9
38	Bricklayer.....	Des Moines.....	Missouri.....	.50	Hour..	8
39	Bricklayer.....	Muscatine.....	Pennsylvania.....	.30	Hour..	8
40	Bricklayer.....	Marshalltown.....	Germany.....	0.45	Hour..	9
41	Bricklayer.....	Sioux City.....	Illinois.....	.30	Hour..	9
42	Bricklayer.....	Sioux City.....	Illinois.....	.30	Hour..	9
43	Broom maker.....	Burlington.....	New Jersey.....	a 1.75	Day..	10

a. Average daily earnings piecework.

b. With board.

c. With commission.

d. Seven days a week.

e. Extra income.

## OF IOWA.

Hours, Insurance, Home, Etc.

MARGINAL NUMBERS.	Yearly Earnings.	If member of labor union.	AMOUNT OF INSURANCE CAR-RIED.		THE HOME		
			Life.	Fire.	Own- ed?	Incum- brance.	Amount rent per month.
1	\$ 500	Yes..	\$ 3,000	\$ 600	Yes..	\$ 500	.....
2	(b) 172	Yes..	.....	.....	No..	.....	\$ 6.00
3	624	Yes..	.....	.....	No..	.....	16.00
4	430	Yes..	.....	.....	No..	.....	(f) 1.00
5	377	Yes..	2,000	.....	No..	.....	8.00
6	500	Yes..	2,000	.....	No..	.....	7.00
7	470	No..	1,000	300	No..	.....	7.50
8	480	Yes..	.....	.....	No..	.....	6.00
9	383	Yes..	.....	.....	Yes..	160	.....
10	400	Yes..	2,000	.....	No..	(f) 3.00	.....
11	480	Yes..	1,000	700	Yes..	500	.....
12	400	Yes..	.....	.....	No..	(f) 3.00	.....
13	450	Yes..	1,000	300	No..	.....	.....
14	700	Yes..	.....	.....	.....	.....	.....
15	626	No..	1,000	.....	No..	(f) 5.00	.....
16	600	Yes..	2,000	1,300	Yes..	400	.....
17	575	Yes..	.....	.....	No..	.....	8.33
18	305	Yes..	.....	.....	No..	.....	5.00
19	800	No..	3,000	.....	No..	.....	15.00
20	750	Yes..	.....	.....	.....	.....	.....
21	720	Yes..	.....	500	No..	.....	12.50
22	900	Yes..	2,000	.....	No..	.....	12.00
23	535	No..	2,000	.....	Yes..	250	.....
24	1,500	No..	.....	.....	No..	.....	10.00
25	720	Yes..	.....	.....	.....	.....	.....
26	1,200	Yes..	6,000	610	Yes..	None..	.....
27	(n) 240	No..	.....	.....	.....	.....	.....
28	900	No..	3,000	1,500	Yes..	836	.....
29	1,400	Yes..	2,400	.....	No..	.....	.....
30	720	Yes..	2,000	.....	No..	.....	12.00
31	.....	No..	6,000	1,150	Yes..	500	.....
32	720	Yes..	.....	.....	Yes..	800	.....
33	820	Yes..	3,500	500	Yes..	250	.....
34	720	Yes..	1,200	600	No..	.....	11.00
35	890	Yes..	1,200	300	No..	.....	8.00
36	545	Yes..	2,800	800	No..	.....	12.00
37	720	Yes..	2,300	350	Yes..	30	.....
38	615	Yes..	4,000	1,700	Yes..	1,000	.....
39	(n) 825	Yes..	.....	.....	No..	.....	25.00
40	.....	Yes..	2,000	400	No..	.....	6.00
41	350	Yes..	400	.....	.....	.....	6.00
42	n 494	Yes..	.....	.....	No..	.....	.....
43	.....	Yes..	2,000	.....	No..	.....	10.00

f. Percentage system.

i. Irregular hours.

n. Not employed steadily.

s. Room rent, single man.

## WAGE EARNERS

Nativity, Occupation, Earnings,

Marginal Number.	OCCUPATION.	Locality where employed.	Nativity.	WAGES.		Working hours per day.
				Rate.	Per	
44	Broom maker	Des Moines	Illinois	a 1.75	Day	10
45	Broom maker	Dubuque	Missouri	a 1.75	Day	10
46	Button worker	Muscatine	Illinois	a 1.40	Day	10
47	Button cutter	Muscatine	Germany	a 1.25	Day	10
48	Button cutter	Muscatine	Iowa	a 1.75	Day	10
49	Button cutter	Muscatine	Iowa	a 1.40	Day	10
50	Button cutter	Muscatine	Iowa	a 1.50	Day	10
51	Carpenter	Burlington	Germany	a 2.00	Day	9
52	Carpenter	Clinton	New York	2.25	Day	10
53	Carpenter	Clinton	Iowa	2.00	Day	10
54	Carpenter	Cedar Rapids	Massachusetts	2.50	Day	10
55	Carpenter	Des Moines	Pennsylvania	2.50	Day	8
56	Carpenter	Dubuque	Pennsylvania	2.50	Day	10
57	Carpenter	Fort Dodge	New York	2.00	Day	10
58	Carpenter	Muscatine	Canada	2.00	Week	10
59	Carpenter	Ottumwa	Kansas	2.25	Day	10
60	Carpenter	Council Bluffs	Sweden	2.00	Day	10
61	Carriage maker, forem'n	Council Bluffs	Sweden	1.75	Day	10
62	Carriage maker, forem'n	Grinnell	Michigan	2.50	Day	10
63	Carriage maker, forem'n	Burlington	Iowa	100 00	Month	10
64	Cigar maker	Burlington	Iowa	a 1.65	Day	8
65	Cigar maker	Davenport	New York	a 2.00	Day	8
66	Cigar maker	Des Moines	Prussia	a 1.60	Day	8
67	Cigar maker	Des Moines	Pennsylvania	a 2.00	Day	8
68	Cigar maker	Dubuque	Iowa	a 2.00	Day	8
69	Cigar maker	Keokuk	Iowa	a 1.90	Day	8
70	Cigar maker	Ottumwa	Pennsylvania	a 1.75	Day	8
71	Cigar maker	Ottumwa	Iowa	a 2.00	Day	8
72	Cigar maker	Oskaloosa	Michigan	a 2.50	Day	8
73	Cigar maker	Sioux City	Iowa	a 1.00	Day	10
74	Cigar maker, female	Sioux City	Iowa	a 1.00	Day	10
75	Clerk, retail	Boone	Iowa	2 25	Day	10
76	Clerk, retail	Clinton	Germany	50 00	Month	10
77	Clerk, retail	Council Bluffs	Iowa	45 00	Month	10
78	Clerk, shipping	Davenport	Missouri	52 00	Month	10
79	Clerk, railway	Des Moines	Sweden	40 00	Month	12
80	Clerk, railway	Sioux City	Iowa	60 00	Month	12
81	Clerk, retail	Des Moines	Iowa	8.50	Week	10
82	Clerk, shipping	Grinnell	New York	0.16	Hour	10
83	Clerk, retail	Muscatine	Switzerland	12 00	Week	10
84	Clerk, shipping	Muscatine	France	12 00	Week	10
85	Clerk, retail	Oskaloosa	Hungary	50 00	Month	10 1/2
86	Clerk, jewelry	Ottumwa	Illinois	20 00	Week	10 1/2
87	Clerk, retail	Ottumwa	Sweden	12.75	Week	10 1/2
88	Clerk, retail	Sioux City	Massachusetts	15 00	Week	10 1/2
89	Clerk, drug	Sioux City	Iowa	45 00	Month	d 15
90	Conductor, railroad	Burlington	Louisiana	125 00	Month	i
91	Conductor, railroad	Creston	Illinois	0 03	Mile	i
92	Conductor, railroad	Clinton	Illinois	0 03	Mile	i
93	Conductor, railroad	Clinton	New York	0 03	Mile	i
94	Conductor, railroad	Dubuque	Louisiana	0 03	Mile	i
95	Conductor, railroad	Lake City	Iowa	0 03	Mile	i
96	Conductor, railroad	Mason City	Illinois	0 03	Mile	i
97	Conductor, railroad	Perry	Ohio	0 03	Mile	i
98	Conductor, railroad	Sioux City	Ohio	0 03	Mile	i
99	Cooper	Des Moines	Illinois	0 08	Barrel	10
100	Cooper	Dubuque	Illinois	a 1.25	Day	10
101	Cooper	Dubuque	Austria	a 1.50	Day	10
102	Cooper	Sioux City	New Jersey	18 00	Week	10
103	Electrician (foreman)	Des Moines	Illinois	5 00	Day	9

a. Average daily earnings piecework

b. With board

c. With commission

d. Seven days a week

e. Extra income

OF IOWA.

Hours, Insurance, Home, Etc.

MARGINAL NUMBER.	Yearly earnings.	If member of labor union.	AMOUNT OF INSURANCE CAR-RIED.		THE HOME.		
			Life	Fire	Owned?	Incumbrance.	Amount rent per month.
44		Yes			No		
45		Yes			No		9 00
46		No	2,000		No		5 00
47	200	Yes	700		No		
48	440	Yes			No		6 00
49	325	Yes			No		
50	300	Yes	1,000	200	No		4 00
51		No	1,000		Yes	None	
52	# 336	No			No		3 50
53		Yes			No		10 00
54	# 395	Yes			No		10 00
55		Yes	3,000		No		10 00
56		Yes	2,000		No		9 00
57	500	Yes			No		
58	410	No		200	Yes	40 00	
59	574	Yes	3,200		No		10 00
60	420	No	1,600		No		12 00
61	500	No	1,000		No		12 00
62	900	No			No		15 00
63	1,200	No	3,000	2,000	Yes	1,500 00	
64	432	Yes			No		6 00
65	522	Yes	3,000	700	Yes	7 00	
66	550	Yes		2,000	Yes	1,500	
67	390	Yes	1,000		No		6 50
68	650	Yes	2,000	300	No		9 00
69	580	Yes	1,350		No		8 00
70	470	Yes	700		No		
71		Yes	1,000		No		
72	620	Yes			No		
73	720	Yes	2,000	500	No		15 00
74	300	Yes			No		10 00
75	660	Yes	2,000		No		
76	645	Yes	4,000		No		
77		Yes			No		
78	664	No	1,000	1,000	Yes		
79	480	No	4,000	1,400	Yes		
80	720	No	4,000	1,000	Yes	800	
81	408	Yes		500	No		
82	490	No		800	Yes	600	
83	650	Yes	7,000	1,100	Yes	500	
84	624	Yes	2,000	1,200	Yes	600	
85	600	Yes			No		6 00
86	1,010	Yes	4,000	1,300	Yes	800	
87	610	Yes	2,000	1,000	Yes	230	
88	780	Yes	1,000	1,500	Yes	800	
89	465	No	2,000		No		
90	1,480	Yes	6,800	1,000	No		16 00
91	1,200	Yes	5,000	1,000	Yes	250	
92	1,200	Yes	3,000	500	No		15 00
93	960	Yes	2,000	500	No		10 00
94	1,170	Yes	3,000	500	No		12 00
95	1,110	Yes	2,000		No		10 00
96	1,270	Yes	4,000	2,000	Yes	1,200	
97	1,000		2,600	750	Yes	200	
98	1,080	Yes	3,000	500	No		12 00
99	# 300	Yes			No		6 00
100	350	Yes	2,000		No		5 50
101	340	Yes			No		4 00
102	320	Yes	3,000	300	Yes	None	
103	1,400	Yes	2,000		No		12 00

f. Percentage system.

i. Irregular hours.

n. Not employed steadily.

s. Room rent, single man.

## WAGE EARNERS

Nativity, Occupation, Earnings,

Marginal number.	OCCUPATION.	Locality where employed.	Nativity.	WAGES.		Working hours per day.
				Rate.	Per	
104	Electrician	Des Moines	Iowa	\$ 2.25	Day	9
105	Electrician (lineman)	Des Moines	Kansas	65.00	Month	10
106	Electrician (engineer)	Sioux City	Missouri	0.35	Hour	d 10
107	Electrifier & stero typer	Des Moines	Wisconsin	15.00	Week	10
108	Electrifier & stero typer	Sioux City	Iowa	16.00	Week	10
109	Engineer (locomotive)	Burlington	Wisconsin	0.31	Hour	10
110	Engineer, locomotive	Clinton	Iowa	0.04	Hour	10
111	Engineer, locomotive	Boone	England	0.04	Hour	10
112	Engineer, locomotive	Des Moines	Illinois	0.037	Hour	10
113	Engineer, locomotive	Des Moines	England	0.037	Hour	10
114	Engineer, locomotive	Mason City	Illinois	0.037	Hour	5
115	Engineer, locomotive	Oelwein	Iowa	0.037	Hour	10
116	Engineer, locomotive	Oakalosa	Iowa	0.037	Hour	10
117	Engineer, locomotive	Ruthven	Illinois	70.00	Month	12
118	Engineer, locomotive	Sioux City	Iowa	0.037	Hour	10
119	Engineer, hoisting	Des Moines	Canada	0.25	Hour	10
120	Engineer, hoisting	Jerome	Scotland	d 50.00	Month	11
121	Engineer, stationary	Sioux City	Iowa	12.00	Week	12
122	Fireman, locomotive	Lake City	Ohio	0.022	Hour	10
123	Fireman, locomotive	Dubuque	Iowa	0.022	Hour	10
124	Fireman, locomotive	Estherville	Illinois	0.03	Hour	10
125	Fireman, locomotive	Fort Madison	Iowa	0.023	Hour	10
126	Fireman, locomotive	Oelwein	Pennsylvania	0.022	Hour	10
127	Fireman, locomotive	Walsh	Iowa	0.02	Hour	10
128	Fireman, locomotive	Waterloo	Iowa	0.022	Hour	12
129	Fireman, locomotive	Valley Junction	Iowa	0.025	Hour	10
130	Fireman, brick kiln	Des Moines	Iowa	1.35	Day	12
131	Fireman, stationary	Muscatine	Iowa	1.50	Day	a 12
132	Fireman, stationary	Sioux City	Massachusetts	1.80	Day	a 13
133	Harness maker	Waterloo	Ohio	a 2.00	Day	10
134	Harness maker	Boone	Kentucky	a 2.00	Day	10
135	Harness maker	Sioux City	Pennsylvania	a 2.00	Day	10
136	Horseshoer	Burlington	Iowa	45.00	Month	10
137	Horseshoer	Cedar Rapids	Iowa	15.00	Week	10
138	Horseshoer	Des Moines	Ohio	15.00	Week	9
139	Laborer (foundry)	Clinton	Iowa	1.75	Day	10
140	Laborer (factory)	Des Moines	Iowa	0.11	Hour	10
141	Laborer (boiler shop)	Fort Madison	Iowa	1.25	Day	10
142	Laborer (building)	Sioux City	Ohio	1.75	Day	10
143	Laborer (farm)	Strahan	Iowa	b 17.00	Month	b 11
144	Lather	Clinton	Iowa	0.02	Hour	10
145	Lather	Des Moines	Iowa	2.50	Day	8
146	Machinist	Burlington	Illinois	2.25	Day	10
147	Machinist	Cedar Rapids	Scotland	0.20	Hour	8
148	Machinist	Davenport	Iowa	0.25	Hour	10
149	Machinist (blotter)	Des Moines	New York	0.30	Hour	10
150	Machinist (jobbing)	Des Moines	New York	0.25	Hour	10
151	Machinist (railroad)	Des Moines	Nebraska	0.27 1/2	Hour	10
152	Machinist	Fort Dodge	Indiana	0.22 1/2	Hour	10
153	Machinist	Boone	Iowa	0.20	Hour	10
154	Machinist	Marshalltown	Illinois	0.20	Hour	10
155	Machinist	Missouri Valley	Illinois	0.27 1/2	Hour	10
156	Machinist	Oelwein	Wisconsin	0.27 1/2	Hour	10
157	Machinist	Sioux City	New York	0.26 1/2	Hour	10
158	Machinist	Muscatine	Illinois	0.22 1/2	Hour	10
159	Machinist	Sioux City	Iowa	0.29	Hour	10
160	Machinist-helper	Des Moines	Kansas	0.14	Hour	10
161	Ma hinist, apprentice	Sioux City	Wisconsin	0.15	Hour	10
162	Metal polisher	Des Moines	Iowa	2.25	Day	10
163	Miller	Dubuque	Germany	9.00	Week	10

a. Average daily earnings piecework.

b. With board.

c. With commission.

d. Seven days a week

e. Extra income.

OF IOWA—CONTINUED.

Hours, Insurance, Home, Etc.

MARGINAL NUMBER.	Yearly earnings.	If member of labor union	AMOUNT OF INSURANCE CARRIED.		THE HOME.		
			Life.	Fire.	Owne?	Incumbrance.	Amount rent per month.
104	\$ 625	Yes.	\$ 2,000		Yes.	None	
105	820	Yes.	2,100	\$ 800	Yes.	\$ 300	
106	1,008	Yes.	2,000	3,000	Yes.	2,000	
107	780	Yes.	2,000		No		12.00
108	800	Yes.	2,500	300	Yes.	300	
109		Yes.	1,500	500	No		10.00
110	958	Yes.	3,000	1,600	Yes.	None	
111	1,235	Yes.	2,500	1,600	Yes.	None	
112		No	2,000	600	No		15.00
113	1,180	No			No		
114	1,500	Yes.	4,500	1,000	Yes.	500	
115	1,680	No			No		14.00
116	836	Yes.	3,000	2,200	Yes.	None	
117	840	No	6,000	1,500	Yes.	None	
118	920	Yes.	2,000		No		10.00
119	500	No	3,500	500	No		8.33
120	600	Yes.		500	Yes.	None	
121	600	No			No		
122		Yes.	500		Yes.	None	
123	800	Yes.	3,000	500	Yes.	600	\$ 10.00
124	900	Yes.	3,500	500	Yes.		
125	752	Yes.	2,500		No		17.00
126	680	Yes.	1,500		No		10.00
127	787	Yes.	1,500		No		15.00
128	700	Yes.	500		No		7.00
129	300	Yes.			No		
130	450	Yes.	2,000		No		6.00
131	440	Yes.	3,000		Yes.	1,800	
132	634	Yes.	1,000	900	No		10.00
133	600	Yes.	2,000		No		8.00
134	500	Yes.	1,000		No		7.00
135	500	No	2,000		No		
136	540	Yes.	2,000	900	Yes.	250	
137	670	Yes.	3,000	500	Yes.	110	
138	480	Yes.	2,000	1,800	Yes.	None	
139	280	No		750	Yes.	1,000	
140	300	No	1,000	300	Yes.	200	
141	300	No	1,000		No		7.00
142	b 168	No			No		
143	n 400	No	500		No		8.00
144	n 500	Yes.	2,000	950	Yes.	650	
145	600	No	3,000	1,400	Yes.		
146	680	Yes.	2,000	1,000	No	400	12.00
147	930	Yes.			No		13.00
148	750	Yes.	1,000		No		14.00
149	800	Yes.	2,000	800	No		14.00
150	650	No			No		
151	720	Yes.	1,000		No		
152	720	Yes.	2,000		Yes.	None	
153	850	Yes.	800	1,000	Yes.	300	
154	850	Yes.	800	1,500	Yes.		
155	783	Yes.	2,000		No		14.00
156	1,000	Yes.	1,000		No		8.00
157	600	No			No		7.13
158	850	Yes.	6,500	500	No		10.00
159	330	No			No		10.00
160	470	Yes.		500	No		7.00
161	n 408	No			No		
162	450	Yes.	500		Yes.	300	

f. Percentage system.

i. Irregular hours.

n. Not employed steadily.

s. Room rent, single man.

## WAGE EARNERS

Nativity, Occupation, Earnings,

Marginal number.	OCCUPATION.	Locality where employed.	Nativity.	WAGES.		Working hours per day.
				Rate.	Per	
164	Miner (coal)	Beacon	Wales	\$ 0.75	Ton	8
165	Miner (coal)	Boonsboro	Pennsylvania	0.90	Ton	8
166	Miner (coal)	Busey	Connecticut	0.75	Ton	8
167	Miner (coal)	Centerville	Illinois	0.85	Ton	8
168	Miner (coal)	Centerville	Illinois	2.00	Day	8
169	Miner (gypsum)	Coalville	Canada	1.75	Day	8
170	Miner (coal)	Des Moines	Kentucky	0.90	Ton	8
171	Miner (coal)	Hamilton	Scotland	0.60	Ton	8
172	Miner (coal)	Irvine	England	0.95	Ton	8
173	Miner (coal)	Mystic	Missouri	0.85	Ton	8
174	Miner (coal)	Oskaloosa	Scotland	0.75	Ton	8
175	Miner (coal)	Ottumwa	Kentucky	2.00	Day	8
176	Miner (coal)	Pekay	Missouri	0.75	Ton	8
177	Miner (coal weighman)	Rathbun	England	1.25	Day	8
178	Miner (coal)	Seymour	Scotland	0.85	Ton	8
179	Miner (coal)	What Cheer	Scotland	0.75	Ton	8
180	Molder iron	Des Moines	Iowa	2.50	Day	10
181	Molder iron	Keokuk	Ohio	3.00	Day	10
182	Molder iron	Marshalltown	Germany	2.25	Day	10
183	Molder iron	Waterloo	Ohio	2.00	Day	10
184	Molder iron	Webster City	Iowa	0.75	Day	10
185	Motorman, Street Ry.	Des Moines	Ohio	0.12 1/2	Hour	a
186	Motorman, Street Ry.	Des Moines	New York	0.18	Hour	12
187	Painter, wagon	Burlington	Germany	2.00	Day	9
188	Painter, house	Burlington	Illinois	2.25	Day	9
189	Painter and paper han'r	Burlington	England	a 2.00	Day	9
190	Painter and paper han'r	Clinton	Illinois	a 2.50	Day	10
191	Painter, carriage	Council Bluffs	Missouri	a 2.25	Day	10
192	Paint maker	Davenport	Iowa	0.27 1/2	Hour	10
193	Paint grinder	Davenport	Iowa	0.27 1/2	Hour	10
194	Paint maker (Supt.)	Davenport	Norway	125.00	Month	i
195	Painter (house)	Davenport	Illinois	2.00	Day	9
196	Painter (house)	Des Moines	England	0.27 1/2	Hour	10
197	Painter (carriage fore'an)	Grinnell	Kentucky	0.30	Hour	10
198	Painter (house)	Keokuk	Iowa	0.22 1/2	Hour	9
199	Painter (house)	Ottumwa	Illinois	0.22 1/2	Hour	9
200	Painter (house)	Sioux City	Michigan	2.50	Day	9
201	Paper hanger	Sioux City	Norway	a 3.50	Day	9
202	Pattern maker	Burlington	Iowa	2.00	Day	10
203	Plaster	Cedar Rapids	Iowa	18.00	Week	8
204	Plaster	Des Moines	Illinois	3.50	Day	8
205	Plumber	Burlington	Iowa	18.00	Week	8
206	Plumber	Des Moines	Sweden	3.00	Day	8
207	Plumber	Sioux City	Nebraska	3.50	Day	8
208	Plumber	Waterloo	Iowa	2.00	Day	10
209	Printer (job)	Cedar Rapids	Iowa	2.00	Day	9
210	Printer	Burlington	Iowa	2.50	Day	9
211	Printer (linotype)	Clinton	Iowa	15.00	Week	8
212	Printer	Creston	Iowa	8.00	Week	10
213	Printer (linotype)	Council Bluffs	Iowa	21.00	Week	8
214	Printer (job)	Des Moines	Illinois	10.00	Week	9
215	Printer (linotype)	Des Moines	Michigan	0.42	Hour	8
216	Printer	Dubuque	Iowa	15.00	Week	10
217	Printer	Keokuk	Missouri	6.00	Day	9
218	Printer	Keokuk	Illinois	15.00	Week	9
219	Printer	Marshalltown	Iowa	9.00	Week	10
220	Printer (foreman)	Muscatine	Illinois	20.00	Week	10
221	Printer	Ottumwa	Iowa	2.75	Day	9
222	Printer	Oskaloosa	Iowa	8.00	Week	10
223	Printer	Waterloo	Iowa	13.00	Week	10

a. Average daily earnings piecework.

b. With board.

c. With commission.

d. Seven days a week.

e. Extra income.

OF IOWA—CONTINUED.

Hours, Insurance, Home, Etc.

MARGINAL NUMBER.	Yearly earnings.	If member of labor union.	AMOUNT OF INSURANCE CARRIED.		THE HOME.		
			Life.	Fire.	Owned?	Incumbrance.	Amount rent per month.
164	\$ 800	Yes		\$ 1,100	Yes	None	
165	# 432	Yes			No		\$ 5.00
166	# 610	Yes			Yes	200	6.00
167	# 387	Yes			No		6.00
168	# 200	Yes			No		6.00
169	# 350	Yes			Yes	None	
170	# 480	Yes			No		15.00
171	# 360	Yes			No		5.00
172	# 420	Yes			No		5.00
173	# 400	Yes			Yes	185	
174	# 475	Yes			Yes	None	
175	# 500	Yes			No		6.00
176	# 310	Yes			No		5.00
177	# 275	Yes			No		
178	# 360	Yes			No		5.00
179	# 361	Yes			Yes	None	
180	500	Yes	2,000		No		
181	500	Yes	2,000		Yes	300	
182	500	No	4,000	1,000	Yes	None	
183	500	No		750	Yes	None	
184	600	Yes	2,000	1,000	Yes	None	
185	# 300	No			No		8.00
186	500	No	2,000		No		6.00
187	600	No		1,600	Yes	None	
188	600	Yes			Yes	500	
189	600	Yes	2,000	250	No		10.00
190	800	Yes	2,000		No		6.00
191	750	No	1,800		Yes	None	
192	693	No	2,000		No		7.50
193	860	No	2,000		No		14.00
194	No	No	2,000	500	Yes	1,000	
195	500	No			No		7.50
196	685	Yes	2,000		No		8.50
197	900	No	2,000	1,000	Yes	1,000	
198	500	Yes			No		5.00
199	625	Yes	1,000	500	No		10.00
200	500	Yes	1,000	250	No		10.00
201		Yes	2,000		No		\$ 4.00
202		No	2,000		No		
203		Yes	1,000		No		10.00
204	600	Yes	7,000	500	Yes	350	
205	935	Yes	2,000	1,000	Yes	800	
206	850	Yes	2,000	500	No		12.00
207	900	Yes	1,000		No		\$ 4.00
208	500	No		500	No		5.00
209	475	Yes			No		
210	705	Yes			No		12.00
211	720	Yes	2,000	500	Yes	300	
212	400	No			No		5.00
213	1,100	Yes	2,000		No		15.00
214	765	Yes	3,000	300	No		10.00
215	660	Yes			No		
216	800	Yes			No		
217	No	No			No		
218	720	Yes	2,000	1,400	Yes	500	
219	400	No	1,000		No		7.00
220	1,040	Yes			No		14.00
221		Yes	3,000		No		8.00
222	380	No	1,000		No		5.00
223	675	Yes	5,000	500	No		15.00

j. Percentage system.

i. Irregular hours.

n. Not employed steadily.

s. Room rent, single man.

## WAGE EARNERS

Nativity, Occupation, Earnings,

Marginal number.	OCCUPATION.	Locality where employed.	Nativity.	WAGES.		Working hours per day.
				Rate.	Per	
224	Printer (job).....	Sioux City.....	Wisconsin	16.00	Week..	9
225	Printer (linotype)...	Sioux City.....	Illinois..	0.42	Hour..	8
226	Reporter (newspaper)...	Des Moines.....	Illinois..	15.00	Week..	1
227	Reporter (newspaper)...	Waterloo.....	Wisconsin	12.00	Week..	1
228	Reporter (newspaper)...	Sioux City.....	Iowa.....	60.00	Month..	1
229	Tailor.....	Burlington.....	Iowa.....	a 1.50	Day..	14
230	Tailor.....	Clinton.....	Austria..	a 15.00	Week..	10
231	Tailor.....	Council Bluffs.....	Denmark..	a 1.50	Day..	1
232	Tailor.....	Davenport.....	Iowa.....	a 2.25	Day..	1
233	Tailor.....	Ottumwa.....	Sweden..	a 2.00	Day..	1
234	Tailor.....	Waterloo.....	Germany..	a 1.75	Day..	10
235	Teamster.....	Sioux City.....	Austria..	14.50	Week..	10
236	Teamster.....	Boone.....	Iowa.....	1.50	Day..	10
237	Teamster.....	Des Moines.....	Iowa.....	2.50	Day..	10
238	Teamster.....	Ottumwa.....	Pennsylvania..	2.50	Day..	10
239	Telegrapher.....	Bellevue.....	Iowa.....	40.00	Month..	d 12
240	Telegrapher (manager)...	Cedar Rapids.....	Indiana..	75.00	Month..	d 9
241	Telegrapher.....	Clinton.....	Indiana..	50.00	Month..	d 12
242	Telegrapher.....	Council Bluffs.....	Ohio.....	50.00	Month..	d 12
243	Telegrapher.....	Lacey.....	Ohio.....	40.00	Month..	d 13
244	Telegrapher.....	Missouri Valley.....	Massachusetts..	50.00	Month..	d 12
245	Telegrapher.....	Muscatine.....	Iowa.....	45.00	Month..	d 13
246	Telegrapher.....	New Sharon.....	Iowa.....	85.00	Month..	d 14
247	Telegrapher.....	Union.....	Iowa.....	45.00	Month..	d 14
248	Telegrapher.....	Waterloo.....	Iowa.....	45.00	Month..	d 10
249	Tinner & sht. iron work'r	Davenport.....	Iowa.....	2.50	Day..	9
250	Tinner & sht. iron work'r	Des Moines.....	Iowa.....	2.50	Day..	9
251	Tinner & sht. iron work'r	Sioux City.....	Iowa.....	2.50	Day..	9
252	Typewriter (inspector)...	Des Moines.....	Iowa.....	2.25	Day..	10
253	Typewriter (drier)...	Des Moines.....	Iowa.....	a 1.35	Day..	10
254	Typewriter (aligner)...	Des Moines.....	Canada..	1.30	Day..	10
255	Wagon maker.....	Burlington.....	Illinois..	a 1.50	Day..	10
256	Wagon maker.....	Dubuque.....	Germany..	a 1.75	Day..	10
257	Wagon maker.....	Grinnell.....	Iowa.....	a 1.80	Day..	10
258	Waiter and cook.....	Des Moines.....	Iowa.....	2.00	Day..	d 12
259	Waiter.....	Des Moines.....	Iowa.....	8.00	Week..	d 11
260	Waiter, manager.....	Keokuk.....	Ohio.....	12.00	Week..	d 10
261	Waiter and cook.....	Sioux City.....	Minnesota..	43.00	Month..	d 12
262	Woodworking machinist	Burlington.....	Iowa.....	1.25	Day..	10
263	Wood worker machinist	Clinton.....	Indiana..	10.00	Week..	10
264	Wood worker machinist	Davenport.....	New York..	2.00	Day..	10
265	Wood worker machinist	Des Moines.....	Sweden..	15.00	Week..	10
266	Wood worker machinist	Dubuque.....	Iowa.....	1.50	Day..	10
267	Wood worker machinist	Keokuk.....	Missouri..	1.75	Day..	10
268	Wood worker machinist	Muscatine.....	Pennsylvania..	1.75	Day..	10

a. Average daily earnings piecework

b. With board.

c. With commission.

d. Seven days a week.

e. Extra income.

OF IOWA—CONTINUED.

Hours, Insurance, Home, Etc.

MARGINAL NUMBER.	Yearly earnings.	If member of labor union	AMOUNT OF INSURANCE CARRIED.		THE HOME.		
			Life.	Fire.	Owned?	Incumbrance.	Amount rent per month.
224	800	Yes..	2,000	1,000	Yes..	500	.....
225	1,000	Yes..	3,000	1,500	Yes..	None	.....
226	700	No..	2,000	.....	No..	.....	5.00
227	624	No..	2,000	1,400	Yes..	800	.....
228	700	No..	2,500	500	Yes..	300	.....
229	470	Yes..	1,000	.....	No..	.....	4.00
230	700	Yes..	1,000	.....	No..	.....	8.00
231	480	Yes..	1,000	1,300	Yes..	475	.....
232	580	Yes..	.....	.....	No..	.....	10.00
233	516	Yes..	.....	300	No..	.....	8.00
234	500	Yes..	150	700	Yes..	750	.....
235	725	Yes..	2,000	.....	No..	.....	11.00
236	320	No..	.....	.....	No..	.....	.....
237	680	Yes..	.....	1,200	Yes..	None	.....
238	450	Yes..	.....	.....	.....	.....	6.00
239	480	No..	2,000	.....	No..	.....	.....
240	900	No..	2,000	1,000	No..	.....	18.00
241	600	No..	3,000	.....	No..	.....	13.00
242	600	Yes..	.....	2,300	Yes..	None	.....
243	c 520	Yes..	500	500	Yes..	None	.....
244	500	No..	500	350	No..	.....	10.00
245	e 600	No..	1,000	.....	No..	.....	11.00
246	1,100	No..	3,000	3,000	Yes..	None	.....
247	540	No..	2,000	.....	No..	.....	10.00
248	700	No..	0.000	.....	No..	.....	.....
249	720	Yes..	2,000	.....	No..	.....	.....
250	700	Yes..	1,000	500	Yes..	300	.....
251	680	Yes..	2,000	500	Yes..	None	.....
252	650	No..	2,000	.....	Yes..	None	.....
253	.....	No..	.....	.....	No..	.....	10.00
254	320	No..	.....	800	Yes..	475	7.50
255	400	No..	1,000	500	Yes..	None	.....
256	540	No..	2,000	.....	No..	.....	6.00
257	624	Yes..	2,000	300	No..	.....	13.00
258	300	Yes..	.....	.....	No..	.....	10.00
259	416	No..	2,000	.....	No..	.....	9.00
260	500	Yes..	1,000	500	No..	.....	12.00
261	207	No..	1,000	.....	No..	.....	5.50
262	480	Yes..	.....	600	Yes..	None	.....
263	447	No..	1,000	.....	No..	.....	9.00
264	650	Yes..	2,000	.....	No..	.....	9.00
265	430	Yes..	750	.....	No..	.....	5.50
266	430	Yes..	500	.....	Yes..	100	.....
267	450	Yes..	2,000	800	Yes..	500	.....

f. Percentage system.

g. Irregular hours.

h. Not employed steadily.

i. Room rent, single man.

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RAILROAD STATISTICS.

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## SPECIAL RAILROAD REPORTS,

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The fact that railroad companies do not keep their accounts by counties renders it necessary to use the Railroad Commissioners reports for 1899 and 1900 which is herewith given under tables number one to two, inclusive, in compliance with the law, together with a wage schedule of the different railroad shops in the state, the results of independent investigation by this bureau.

TABLE 1—RAILROAD EMPLOYES

RAILROADS.	GENERAL OFFICERS.			OTHER OFFICERS.		
	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
Ames & College .....				5	\$ 7,800.00	\$ 4.33
Atchison, Topeka & Santa Fe .....				76	70,714.95	2.43
Boone Valley .....	11	\$ 38,808.00	\$ 9.67			
Burlington, Cedar Rapids & Northern .....	3	1,080.00	3.00			
Cedar Rapids, G. & N-W .....	10	79,591.54	13.62			
Chicago, Burlington & Quincy .....						
Chicago, Burlington & Kansas City .....						
Kansas City, St. Joe & Council Bluffs .....						
St. Louis, Keokuk & Northwestern .....				1	1,285.00	3.52
Chicago, Ft. Madison & Des Moines .....	2	5,330.24	4.87			
Chicago, Iowa & Dakota .....	2	1,345.00	1.85			
Chicago Great Western .....				2	6,000.00	8.22
Chicago, Milwaukee & St. Paul .....	10	72,922.28	20.65	15	58,091.44	10.43
Chicago, Rock Island & Pacific .....				5	10,200.00	10.35
Chicago & North-Western .....				2	7,275.00	11.62
Chicago, St. Paul, Minneapolis & Omaha .....				2	540.00	.86
Sioux City & Pacific .....	1	90.00	.20			
Crooked Creek .....	3	3,080.00	3.20			
Des Moines, Northern & Western .....	6	8,250.00	7.47	1	900.00	4.89
Dubuque & Sioux City .....	10	60,690.40	10.23			
Stacyville railroad .....						
Des Moines Union .....	2	3,100.00	4.25			
Iowa Central .....	15	34,768.14	0.30			
Albia & Centerville .....	1	600.00	2.00			
Iowa Northern .....	6	12,034.81	5.49	7	13,500.00	5.28
Keokuk & Western .....	7	5,882.50	4.03			
Mason City & Ft. Dodge .....	15	11,118.49	12.35	5	1,261.30	4.21
Minneapolis & St. Louis .....	2	1,100.00	3.22			
Muscatine N. & S. .....						
Omaha & St. Louis .....	4	9,100.00	6.23	8	6,560.00	3.06
Sioux City & Northern .....	4			1	1,200.00	3.83
Tabor & Northern .....						
Union Pacific .....	1	3,316.17	14.32			
Wabash .....	4	1,058.76	3.54	3	697.54	3.11
Winona & Western .....						
NARROW GAUGE ROADS.						
Burlington & Northwestern .....	3	2,161.40	4.61	2	916.05	2.93
Burlington & Western .....		2,458.60	5.23	2	1,033.55	3.30
Total .....	129	\$ 358,805.48		137	\$ 104,574.83	

\* Six months. † Five and one-third months.

AND SALARIES—IOWA—1899.

GEN. OFFICE CLERKS.			STATION AGENTS.			OTHER STATIONMEN.			ENGINEMEN.		
Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
				\$ 2,574.00	\$2.38	11	\$ 5,841.96	\$1.63	1	\$ 474.60	\$1.30
			3						58	69,347.00	3.70
72	\$ 45,284.75	\$2.01	158	92,249.50	1.87	182	77,847.12	1.37	102	130,643.00	3.80
1	297.50	1.75	5	1,487.50	1.75				1	712.50	3.75
41	45,689.61	3.05	129	77,086.17	1.63	336	138,324.23	1.31	187	221,369.80	3.24
			14	7,008.00	1.37	3	349.80	.32	13	16,128.48	3.40
			8	4,110.00	1.41	1	185.00	.58	2	1,286.00	2.75
			7	2,820.00	1.19	8	3,250.00	1.12	2	1,950.40	2.68
2	1,214.40	1.67	10	5,400.00	1.48	2	840.00	1.15	2	2,434.08	3.42
			6	2,652.80	1.22				1	832.88	2.21
			80	54,540.00	1.86	110	55,438.00	1.38	85	111,600.00	3.60
90	62,184.04	2.21	271	149,563.30	1.73	843	461,518.42	1.52	287	335,549.26	3.73
			158	98,666.40	1.88	215	98,647.20	1.47	145	197,116.92	4.40
15	16,161.20	3.97	159	112,167.80	1.95	320	149,116.79	1.59	402	433,424.25	3.57
			12	9,079.33	2.42	41	22,549.60	1.76	17	12,076.77	4.15
			13	9,720.00	2.39	50	27,173.88	1.85	18	21,767.19	3.86
			2	811.35	1.3				1	879.00	2.44
7	2,484.40	1.02	29	15,688.84	1.56				9	12,170.72	4.32
20	52,562.38	2.19	96	56,617.89	1.63	115	46,143.51	1.24	91	101,218.92	3.72
			2	960.00	1.38						
4	1,350.00	1.66				28	16,524.10	1.49	3	2,488.24	2.45
62	33,041.42	1.65	71	35,144.80	1.42	34	14,042.73	1.09	59	70,925.00	3.75
			2	1,200.00	1.64	2	159.96	.22			
1	580.00	2.60							1	960.00	3.20
20	9,183.18	1.45	32	15,838.76	1.37	29	12,555.68	1.35	16	16,050.49	3.41
4	2,324.00	1.59	12	6,331.01	1.45	1	280.11	.72	3	4,000.20	3.66
59	6,592.26	2.17	19	11,760.00	1.98	8	2,364.66	1.68	17	17,115.72	3.61
2	594.45	1.78	5	1,445.15	1.74	2	376.60	1.16	3	9,810.3	3.06
			10	5,696.88	1.62	12	5,111.64	1.52	9	8,289.17	3.00
15	9,327.40	2.12	14	7,937.55	1.66	18	7,064.70	1.32	6	7,904.00	3.52
			1	400.00	1.53	1	90.00	.28	1	720.00	...
6	4,929.66	2.64	7	4,305.47	1.85	17	8,844.27	1.63	9	11,283.63	2.89
1	99.05	1.33	3	1,641.40	1.52	1	440.49	1.29	5	1,183.02	3.67
6	1,334.60	1.42	8	3,421.50	1.37	3	836.55	.89	2	1,884.70	3.01
6	1,499.10	1.60	14	5,341.90	1.22	3	1,182.85	1.20	4	4,404.00	3.57
436	\$ 297,236.80		1,370	\$ 800,177.39		2,402	\$ 1,097,100.64		1,560	\$ 1,828,721.04	

TABLE 2—EMPLOYES AND

RAILROADS.	FIREMEN.			CONDUCTORS.		
	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
Ames & College.....				1	\$ 560 00	\$1.54
Ames, Chelsea, Topeka & Santa Fe.....	58	\$ 43,322 44	\$2 23	18	19,697 04	3.38
Boone Valley.....						
Burlington, Cedar Rapids & Northern.....	110	79,162 00	2.32	70	79,770 52	1.34
Cedar Rapids, Garner & North-Western.....	1	427 50	2.25	1	510 50	2.08
Chicago, Burlington & Quincy.....	197	133,027 68	1.86	129	140,620 17	3.21
Chicago, Burlington & Kansas City.....	13	8,856 47	1.89	11	12,314 64	3.21
Kansas City, St. Joe & Council Bluffs.....	2	772 80	2.55			
St. Louis, Keokuk & North-Western.....	2	1,043 90	1.43	1	789 00	2.45
Chicago, Ft. Madison & Des Moines.....	1	1,665 50	2.34	2	1,821 40	2.08
Chicago, Iowa & Dakota.....	1	432 04	1.18	1	672 58	1.84
Chicago Great Western.....	85	68,255 00	2.20	57	60,024 25	2.86
Chicago, Milwaukee & St. Paul.....	286	202,157 38	2.26	230	250,930 15	2.86
Chicago, Rock Island & Pacific.....	141	122,888 40	2.78	105	122,531 52	3.73
Chicago & North-Western.....	449	294,733 71	2.59	285	275,720 66	2.85
Chicago, St. Louis, Minneapolis & O.....	17	13,042 80	2.55	13	13,659 24	4.13
St. Louis City & Pacific.....	18	13,205 02	2.34	6	7,762 70	3.30
Crooked Creek.....	1	540 00	1.73	1	540 00	1.73
Des Moines Northern & Western.....	9	7,551 65	2.08	8	8,262 30	3.36
Dubuque & Sioux City.....	95	59,783 32	2.20	56	61,456 21	3.58
Stacyville railroad.....						
Des Moines Union.....		1,616 00				
Iowa Central.....	64	39,093 03	2.07	39	39,727 59	2.97
Albia & Centerville.....						
Iowa Northern.....	1	540 00	1.80	1	600 00	2.00
Keokuk & Western.....	18	10,412 29	2.09	11	10,126 12	3.06
Mason City & Ft. Dodge.....	3	2,508 16	2.35	3	2,865 44	2.81
Minneapolis & St. Louis.....	17	9,914 52	2.09	7	6,099 00	2.85
Muscatine North & South.....	3	492 28	2.17	3	635 20	2.83
Omaha & St. Louis.....	6	5,176 03	1.89	5	5,285 25	2.85
Sioux City & Northern.....	6	4,508 15	2.18	5	4,879 95	3.33
Tabor & Northern.....	1	420 00	1.34	1	420 00	1.34
Union Pacific.....						
Wabash.....	9	6,507 19	2.29	6	7,060 48	3.56
Winona & Western.....	5	652 34	2.01	3	766 31	3.33
NARROW GAUGE RAILS.						
Burlington & North-Western.....	1	1,129 35	2.28	1	804 70	2.57
Burlington & Western.....	2	2,812 40	2.25	4	3,403 00	2.75
Total.....	1,632	\$ 1,137,028 15		1,078	\$ 1,149,521 36	

AND SALARIES—IOWA—CONTINUED.

OTHER TRAINMEN.			MACHINISTS.			CARPENTERS.			OTHER SHOPMEN.		
Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
33	\$ 20,418.36	\$2.02	57	\$ 34,095.00	\$2.55	40	\$ 18,596.40	\$2.11	276	\$ 114,994.80	\$1.61
163	100,111.73	1.93	115	71,055.00	2.46	160	92,052.45	2.00	34	155,405.70	1.46
274	165,022.69	1.64	226	143,441.35	2.02	216	154,779.05	2.01	858	405,416.45	1.52
21	14,291.40	1.83							1	600.00	1.01
2	1,320.86	2.11	9	\$ 5,442.72	1.62	1	672.00	2.15	21	\$ 11,420.88	1.74
3	2,021.54	1.80	5	2,200.15	2.12	2	\$ 976.00	1.90	30	9,468.60	1.51
2	1,008.74	1.30	1	791.50	2.16		1,102.05	1.75	5	2,475.35	1.52
2	73,912.00	1.50	33	28,123.25	2.30	92	62,460.62	1.84	152	138,700.00	2.50
364	237,122.08	2.08	97	75,533.80	2.48	117	113,245.50	1.93	559	302,390.30	1.50
192	138,723.08	2.36	31	24,493.80	2.52	140	92,252.64	2.02	424	207,185.28	1.56
518	342,680.03	2.00	204	123,880.25	1.94	271	130,087.68	2.10	619	201,583.79	1.55
30	19,457.61	2.07	55	33,023.90	1.77	40	24,747.34	1.68	7	7,779.90	3.55
15	10,510.22	2.10	80	50,650.21	1.84	117	49,973.87	2.02	202	99,974.27	1.68
			1	540.00	1.73				1	480.00	1.64
6	6,472.89	1.72				8	4,755.65	1.90	4	2,052.32	1.68
116	82,169.74	2.15	108	50,080.33	1.63	52	42,881.08	2.23	150	74,836.71	1.63
			16	9,085.42	2.47		3,616.00	2.08	25	7,707.42	1.36
73	47,364.09	1.93	102	33,987.30	1.91	71	32,057.28	2.02	111	49,933.80	1.62
						2	1,930.40	2.16			
2	900.00	1.60									
22	9,931.84	1.70	21	9,882.05	1.51	17	9,356.66	2.20	97	33,011.35	1.41
6	2,723.86	2.01	3	3,057.61	2.84	14	6,530.86	1.99	17	8,353.41	1.56
10	9,339.30	1.11	4	3,118.92	2.59	6	3,730.40	3.17	29	10,785.68	1.43
6	8,22.38	1.62	1	201.46	2.09				3	693.60	1.49
18	4,904.84	1.64									
11	5,401.70	2.10	6	5,229.25	2.69	10	8,223.90	2.33	66	30,614.35	1.93
12	8,395.04	2.28	10	6,391.06	1.99	6	4,180.89	2.30	24	13,021.09	1.75
6	995.03	1.66	2	252.19	2.27	10	705.89	2.05	9	987.61	1.50
1	750.85	2.40	4	3,643.45	2.91	6	4,141.45	2.21	15	7,733.80	1.66
8	4,218.50	1.68				2	1,817.10	2.90	6	2,953.15	1.57

TABLE No. 1—RAILROAD EMPLOYES

RAILROADS.	SECTION FOREMEN.			OTHER TRACKMEN.		
	Number.	Total yearly compensation.	Av. daily compensation.	Number.	Total yearly compensation.	Av. daily compensation.
Ames & College	1	\$ 480.00	\$1.31			\$1.31
Atchison, Topeka & Santa Fe	5	2,760.00	1.53	53	13,874.04	1.26
Boone Valley					265,658.75	1.25
Burlington, Cedar Rapids & Northern	163	89,242.50	1.50	679	3,295.00	
Cedar Rapids, Gar. & North-Western	178	91,802.31	1.41	772	291,473.66	1.21
Chicago, Burlington & Quincy	15	7,200.00	1.32	62	21,274.80	1.10
Kansas City, St. Joe & Council Bluffs	12	6,204.00	1.42	65	22,021.80	1.08
St. Louis, Keokuk & North-Western	9	4,380.00	1.33	47	15,391.80	1.05
Chicago, Ft. Madison & Des Moines	10	5,520.00	1.51	30	12,215.62	1.25
Chicago, Iowa & Dakota	3	1,350.00	1.23	10	3,106.22	1.02
Chicago Great Western	27	41,616.87	1.55	480	186,525.76	1.24
Chicago, Milwaukee & St. Paul	287	150,405.57	1.74	1,148	445,897.44	1.24
Chicago, Rock Island & Pacific	191	110,730.00	1.85	982	311,084.55	1.26
Chicago & North-Western	202	124,997.80	1.76	1,705	444,410.81	1.31
Chicago, St. Paul, Min. & Omaha	13	7,196.25	1.77	33	13,516.66	1.31
Sioux City & Pacific	14	7,200.00	1.64	51	15,468.28	1.24
Crooked Creek	2	960.00	1.54	4	1,045.82	1.25
Des Moines, Northern & Western	25	13,500.00	1.48	99	35,932.05	1.10
Dubuque & Sioux City	100	50,259.23	1.63	550	110,291.00	1.14
Staceyville railroad	1	480.00	1.53	3	687.97	1.10
Des Moines Union	2	1,380.00	1.80	18	8,997.95	1.27
Iowa Central	61	31,271.00	1.35	378	82,735.75	1.19
Albia & Centerville	4	2,080.00	1.42	29	4,810.30	1.21
Iowa Northern	1	480.00	1.60	5	2,250.00	1.50
Keokuk & Western	34	18,719.99	1.50	181	31,357.94	1.15
Mason City & Ft. Dodge	14	6,942.58	1.39	37	10,316.04	1.13
Minneapolis & St. Louis	27	14,580.00	1.73	57	12,129.08	1.01
Muscatine North & South	4	592.10	1.21	15	1,401.86	1.21
Omaha & St. Louis	12	5,823.60	1.31	55	14,024.50	1.11
Sioux City & Northern	12	6,427.35	1.71	62	9,828.45	1.27
Tabor & Northern	1	450.00	1.44	4	1,377.80	1.10
Union Pacific	7	3,675.10	1.78	25	9,419.35	1.18
Wabash	3	1,630.00	1.51	8	2,019.99	1.25
Winona & Western						
NARROW GAUGE ROADS.						
Burlington & Northwestern	7	3,860.00	1.76	14	5,185.15	1.18
Burlington & Western	12	9,060.00	1.61	23	8,059.85	1.12
Total	1,514	\$ 825,548.60		7,684	\$ 2,416,805.44	

AND SALARIES—IOWA—CONTINUED—1899.

SWITCHMEN, FLAGMEN AND WATCHMEN.			TELEGRAPHERS AND DESPATCHERS.			EMPLOYEES ACC'T FLOAT'G EQUIP'M'T.			ALL OTHER EMPLOYEES AND LABORERS.		
Number.	Total yearly compensation.	Av. daily compensation.	Number.	Total yearly compensation.	Av. daily compensation.	Number.	Total yearly compensation.	Av. daily compensation.	Number.	Total yearly compensation.	Av. daily compensation.
11	\$ 9,104.10	\$2.94	7	\$ 2,791.92	\$1.59				124	\$ 210.00	\$ .65
80	51,010.84	2.15	78	41,434.32	1.70				157	44,085.24	1.69
196	117,321.01	1.64	100	73,087.29					224	110,839.50	1.58
1	600.00	2.11	3	3,060.00	2.70				5	3,402.00	2.17
2	1,200.00	1.64	3	1,159.92	1.06				8	3,435.00	1.37
3	2,029.20	2.59	2	1,140.00	1.50				5	3,426.12	2.19
1	81.12	.22	1	800.00	1.64						
42	37,381.12	2.49	45	39,386.25	1.85				100	125,404.75	1.80
335	211,160.54	2.61	255	168,297.70	2.11				1,207	902,855.50	2.28
125	81,400.92	2.08	80	60,300.00	2.24				140	99,957.48	2.28
250	175,133.48	2.25	224	135,677.21	1.93				716	298,947.96	1.77
18	11,099.02	2.13	12	6,812.54	1.08				41	22,314.90	1.74
31	29,800.81	2.14	6	3,180.00	1.69				10	2,544.85	1.81
			8	4,458.66	1.53	2	\$ 604.31	\$1.50	5	1,768.80	1.10
67	39,594.57	1.82	52	32,658.11	1.81				266	154,817.05	1.75
28	13,876.00	1.75	2	900.00	1.61				24	8,182.04	1.42
41	23,794.65	2.00	31	17,678.59	1.58	6	10,965.55	1.98	69	40,787.99	1.57
			1	480.00	1.14				1	495.50	1.20
10	4,707.93	1.65	21	6,495.58	1.19				7	3,646.65	1.31
			2	777.61	1.30				12	4,310.89	2.00
3	2,160.00	2.30	7	2,840.00	1.30				13	9,872.70	2.50
			1	292.50	1.80						
5	2,700.00	1.45	9	2,345.72	1.48				15	5,228.60	2.08
12	5,394.05	1.00	4	1,895.55	1.71				20	7,433.85	1.59
10	6,152.37	2.06	5	3,305.28	2.06				14	10,428.78	2.42
			1	207.59	2.78	2	1,371.30	1.84	2	274.03	1.83
2	1,352.45	2.16	2	805.60	2.57				8	4,794.75	1.91
1	571.55	1.63	2	914.40	2.02				6	2,169.25	1.16
1,280	\$ 819,645.79		975	\$ 603,978.34		10	\$ 12,941.16		3,350	\$ 1,974,344.15	

TABLE No. 1—RAILROAD EMPLOYES AND SALARIES—1899—CONTINUED.

Marginal number.	RAILROADS.	IOWA.					
		TOTAL, INCLUDING GENERAL OFFICERS.			TOTAL, EXCLUDING GENERAL OFFICERS.		
		Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
1	Ames & College.....	4	\$ 1,754.60		4	\$ 1,754.60	
2	Atchison Topeka & Santa Fe.....	759	409,152.96	\$ 2.07	759	409,152.96	\$ 2.07
3	Boone Valley.....						
4	Burlington, Cedar Rapids & Northern.....	2,725	1,583,161.18	1.87	2,714	1,544,353.04	
5	Cedar Rapids, Garner & Northwestern.....	28	9,972.00		25	7,982.50	
6	Chicago, Burlington & Quincy.....	4,115	2,388,893.11	1.75	4,099	2,309,301.57	1.70
7	Chicago, Burlington & Kansas City.....	162	95,142.60	1.72	162	95,142.60	1.72
8	Kansas City, St. Joe & Council Bluffs.....	125	52,571.40	1.31	125	52,571.40	1.31
9	St. Louis, Keokuk & Northwestern.....	122	55,420.20	1.41	122	55,420.20	1.41
10	Chicago, Fort Madison & Des Moines.....	78	45,207.14	1.60	75	39,876.00	1.56
11	Chicago, Iowa & Dakota.....	30	13,125.05	1.25	28	11,780.05	1.21
12	Chicago, Great Western.....	1,661	1,079,857.87	1.85	1,661	1,079,857.87	1.85
13	Chicago, Milwaukee & St. Paul.....	6,537	4,153,333.84	2.03	6,520	4,080,411.56	2.00
14	Chicago, Rock Island & Pacific.....	3,094	1,781,888.10	1.60	3,094	1,781,888.10	1.60
15	Chicago & North Western.....	6,333	3,362,993.81	1.96	6,333	3,362,993.81	1.96
16	Chicago, St. Paul Minneapolis & Omaha.....	348	228,624.59	2.10	348	228,624.59	2.10
17	Sioux City & Pacific.....	640	339,630.06	1.82	639	339,549.90	1.82
18	Crooked Creek.....	18	9,480.48	1.88	15	6,400.48	1.58
19	Des Moines, Northern & Western.....	230	124,246.28	1.72	224	115,996.28	1.63
20	Dubuque & Sioux City.....	1,944	1,070,000.51	1.91	1,934	1,015,310.05	1.82
21	Stacyville railroad.....	6	2,127.97	1.28	6	2,127.97	1.28
22	Des Moines Union.....	162	78,203.17	1.61	160	75,103.17	1.57
23	Iowa Central.....	1,287	634,919.61	1.83	1,272	600,151.47	1.75
24	Albia & Centerville.....	46	10,166.16	1.25	46	10,166.16	1.25
25	Iowa Northern.....	13	6,970.00		12	6,370.00	
26	Keokuk & Western.....	549	224,901.17	1.67	543	213,866.36	1.61
27	Mason City & Fort Dodge.....	136	67,204.20	1.72	120	61,411.79	1.64
28	Minneapolis & St. Louis.....	369	134,922.00	2.05	294	123,804.50	1.96
29	Muscantine, North & South.....	50	9,791.81	1.78	48	8,681.81	1.66
30	Omaha & St. Louis.....	101	63,379.48	1.59	101	63,379.48	1.59
31	Sioux City & Northern.....	279	137,090.20	2.02	275	127,090.20	1.93
32	Tabor & Northern.....	12	5,157.20	1.37	10	3,957.20	1.26
33	Union Pacific.....						
34	Wabash.....	168	111,231.13	2.11	167	107,914.96	2.03
35	Winona & Western.....	68	14,749.23	1.81	64	13,690.47	1.77
36	Burlington & Northwestern.....	86	45,056.35	1.81	83	42,894.95	1.76
37	Burlington & Western.....	100	48,957.20	1.67	97	46,497.60	1.61
	Total.....	32,385	\$18,406,383.76		32,245	\$18,046,376.73	

TABLE No. 1—RAILROAD EMPLOYES AND SALARIES—1899—CONTINUED.

Marginal number.	RAILROADS.	IOWA.				ENTIRE LINE.					
		DISTRIBUTION.				TOTAL, INCLUDING GENERAL OFFICERS			TOTAL, EXCLUDING GENERAL OFFICERS.		
		General adminis- tration.	Maintenace of way and structure.	Maintenance of equipment.	Conducting transporta- tion.	Num- ber.	Total yearly compensa- tion.	Average daily com- pensation.	Num- ber.	Total yearly compensa- tion.	Average daily com- pensation.
1	Ames & College .....										
2	Atchison, Topeka & Santa Fe ....	\$ 17,139.84	\$ 48,141.24	\$ 167,558.20	\$ 176,275.68	17,668	\$10,085,046.48	\$2.11	17,614	\$ 9,726,057.36	\$2.04
3	Boone Valley .....										
4	Burlington, Cedar Rapids & N. ....	84,092.84	477,705.28	492,380.70	520,002.31	3,036	1,744,403.94	1.83	3,025	1,783,212.03	1.87
5	Cedar Rapids, Garner & N. W. ....					28	9,971.50		25	7,982.50	
6	Chicago, Burlington & Quincy .....	125,281.15	575,001.52	585,804.30	1,102,806.14	22,143	12,995,768.34	1.77	22,005	12,478,046.72	1.72
7	Chicago, Burlington & K. C. ....		28,474.80	600.00	66,067.80	329	169,242.78	1.58	328	165,414.78	1.55
8	Kansas City, St. Joe & Council B. ....		28,225.80	12,101.88	12,243.72	1,793	1,060,442.70	1.77	1,784	1,020,473.75	1.73
9	St. Louis, Keokuk & N. W. ....		19,771.80	17,881.92	17,750.48	1,593	868,081.96	1.62	1,586	847,839.91	1.58
10	Chicago, Ft. Madison & D. M. ....	7,820.73	17,735.62	4,778.15	14,863.64	78	45,207.14	1.69	75	30,876.90	1.56
11	Chicago, Iowa & Dakota .....	1,345.00	4,546.22	1,008.72	6,225.11	30	13,185.05	1.25	28	11,780.05	1.21
12	Chicago Great Western .....	6,000.00	273,941.89	253,110.77	546,805.21	3,492	2,346,437.36	1.91	3,481	2,287,430.90	1.87
13	Chicago, Milwaukee & St. Paul ..	193,797.70	1,014,265.74	585,983.53	2,359,286.81	21,626	13,739,112.92	2.03	21,594	13,497,888.05	2.00
14	Chicago, Rock Island & Pacific ..	10,800.00	463,915.71	323,931.72	977,240.76	11,970	7,327,622.32	2.06	11,947	7,181,822.44	2.03
15	Chicago & North-Western .....	2,707.98	928,677.18	264,148.92	2,107,459.73	28,690	15,236,750.92	1.98	28,674	15,075,451.12	1.96
16	Chicago, St. Paul, M. & O. ....					4,884	3,281,858.10	2.13	4,857	3,154,557.97	2.06
17	Sioux City & Pacific .....	90.00	31,721.37	162,505.55	145,323.04	711	367,236.22	1.78	695	362,510.26	1.80
18	Crooked Creek .....	3,680.00	2,005.82	540.00	3,854.60	18	9,480.48	1.88	15	6,400.48	1.58
19	Des Moines Northern & Western ..	11,634.40	56,240.02		50,371.86	230	124,246.28	1.72	224	115,246.28	1.63
20	Dubuque & Sioux City .....	52,598.46	268,384.38	203,059.74	551,957.93	2,051	1,097,271.51	1.90	2,041	1,036,581.05	1.81
21	Stacyville railroad .....		1,167.97		960.00	6	2,127.97	1.28	6	2,127.97	1.28
22	Des Moines Union .....	4,450.00	11,205.17	10,375.20	52,172.94	162	78,203.17	1.61	160	75,103.17	1.57
23	Iowa Central .....	67,809.56	150,562.22	119,776.35	287,771.48	1,549	785,213.68	1.80	1,538	755,833.84	1.75
24	Albia & Centerville .....		8,386.20		1,779.60	40	10,166.16	1.25	40	10,166.16	1.25
25	Iowa Northern .....	1,180.00	2,730.00	47,571.73	3,080.60	13	6,020.00		12	6,370.00	
26	Keokuk & Western .....	34,717.39	58,402.82		85,208.63	688	281,876.50	1.65	682	269,841.75	1.60
27	Mason City & Fort Dodge .....	18,206.50	25,061.68	13,381.73	19,714.38	130	67,294.20	1.72	129	61,111.79	1.64
28	Minneapolis & St. Louis .....	20,452.95	29,770.89	19,155.91	65,543.24	1,760	839,197.15	2.07	1,745	779,032.10	1.92
29	Muscatine North & South .....	1,704.45	165.50	261.46	7,660.43	50	9,791.84	1.78	48	8,681.84	1.68
30	Omaha & St. Louis .....		25,676.00		37,702.78	488	192,407.00	1.60	486	190,138.44	1.59
31	Sioux City & Northern .....	24,987.40		35,843.60	51,779.50	279	137,090.20	2.02	275	127,990.20	1.93
32	Tabor & Northern .....	1,200.00	1,827.20		2,130.00	12	5,157.20	1.37	10	3,957.20	1.26
33	Union Pacific .....										
34	Wabash .....	7,085.27	18,236.37	23,762.74	61,240.75	8,431	5,501,550.50	2.11	8,394	5,395,748.12	2.05
35	Winona & Western .....	1,158.41	5,154.94	2,843.61	5,592.27	144	74,320.00	1.77	140	69,220.00	1.71
36	NARROW GAUGE ROADS.										
37	Burlington & Northwestern .....	1,412.05	11,285.70	15,518.70	13,839.90	86	45,056.35	1.81	83	42,894.95	1.76
38	Burlington & Western .....	4,991.25	21,157.35		22,908.60	100	48,957.20	1.67	97	46,497.60	1.61
	Total .....	\$102,652.39	\$4,643,924.10	\$3,363,903.19	\$9,452,601.74	134,326	\$78,667,701.33	.....	123,849	\$76,753,193.80	.....

TABLE No. 5—RAILROAD EMPLOYES AND SALARIES—IOWA—1900—CONTINUED.

Marginal number	RAILROADS.	GENERAL OFFICERS.			OTHER OFFICERS.			GENERAL OFFICE CLERKS.		
		No.	Total yearly compensation.	Av. daily compensation.	No.	Total yearly compensation.	Av. daily compensation.	No.	Total yearly compensation.	Av. daily compensation.
1	Ames & College				1	\$ 2,100.00	\$ 5.83			
2	Atchison, Topeka & Santa Fe									
3	Boone Valley									
4	Burlington, Cedar Rapids & Northern	11	\$ 40,110.13	\$ 9.99	7	16,650.00	7.62	141	\$ 100,503.35	
5	Cedar Rapids, Garner & Northwestern	5	3,137.80	1.75				1	480.00	\$ 1.31
6	Chicago, Burlington & Quincy	18	86,725.00	12.29				46	42,937.50	2.98
7	Chicago, Burlington & Kansas City									
8	Kansas City, St. Joe & Council Bluffs									
9	St. Louis, Keokuk & Northwestern									
10	Chicago, Ft. Madison & Des Moines	3	4,712.50	4.30	2	1,785.00	2.45	2	1,069.03	1.46
11	Chicago, Iowa & Dakota	2	1,565.00	2.14				2	525.00	.72
12	Chicago, Great Western				2	6,199.80	8.49			
13	Chicago, Milwaukee & St. Paul	9	71,740.07	22.75	16	61,267.36	19.23	94	69,538.33	2.36
14	Chicago, Rock Island & Pacific				5	18,000.00	11.50			
15	Chicago & North-Western				3	10,046.64	10.70	18	21,094.29	3.55
16	Chicago, St. Paul, Minneapolis & Omaha									
17	Sioux City & Pacific	1	50.00	.16	2	540.00	.86			
18	Crooked Creek	3	3,080.00	3.29						
19	Des Moines Northern & Western									
20	Dubuque & Sioux City	10	25,199.92	8.68				27	17,336.95	2.01
21	Stacyville Railroad									
22	Des Moines Union	2	3,200.00	4.38				4	1,798.00	1.23
23	Iowa Central	13	34,359.78	7.40				87	57,003.60	1.78
24	Albia & Centerville									
25	Iowa Northern	1	730.00	2.40				1	150.00	2.00
26	Keokuk & Western	3	10,727.00	9.82	7	11,950.00	4.72	28	11,355.21	1.39
27	Mason City & Ft. Dodge	7	5,991.21	4.69				4	2,418.00	1.74
28	Minneapolis & St. Louis	7	7,225.00	10.65	15	6,307.85	7.01	34	3,868.80	1.85
29	Muscatine North & South	5		7.65				1		
30	Omaha & St. Louis				2	1,458.40	6.53	6	1,563.37	2.33
31	Willmar & Sioux Falls					900.00	2.87			
32	Tabor & Northern	1	1,500.00	4.79	1					
33	Union Pacific									
34	Wabash	1	3,414.34	14.35				7	5,271.83	2.59
35	Winona & Western	4	994.50	3.56	3	655.20	3.07	2	164.91	1.68

NARROW GAUGE ROADS.										
36	Burlington & Northwestern	3	2,288.42	4.88	2	868.42	2.77	8	1,688.11	1.35
37	Burlington & Western	3	2,016.58	5.56	2	1,117.88	3.57	8	1,816.20	1.45
	Total	112	\$ 393,357.34		70	\$ 139,786.55		521	\$ 340,582.59	

TABLE No. 1--RAILROAD EMPLOYES AND SALARIES--IOWA--1900--CONTINUED.

Marginal number.	RAILROADS.	STATION AGENTS.			OTHER STATION MEN.			ENGINEMEN.		
		No.	Total yearly compensa- tion.	Av. daily com- pensa- tion.	No.	Total yearly compensa- tion.	Av. daily com- pensa- tion.	No.	Total yearly compensa- tion.	Av. daily com- pensa- tion.
1	Ames & College.....							1	\$ 544.80	\$ 1.49
2	Atchison, Topeka & Santa Fe.....	3	\$ 2,580.00	\$ 2.40	13	\$ 6,540.00	\$ 1.50	49	\$ 61,789.08	\$ 3.74
3	Boone Valley.....									
4	Burlington, Cedar Rapids & Northern.....	155	93,413.00	1.80	196	86,422.90	1.41	108	137,746.80	3.80
5	Cedar Rapids, Garner & Northwestern.....	5	1,992.00	.55	2	280.20	.38	1	1,173.75	3.21
6	Chicago, Burlington & Quincy.....	128	80,040.00	1.71	374	150,474.00	1.29	170	219,007.54	3.41
7	Chicago, Burlington & Kansas City.....	13	6,408.00	1.35	4	109.80	.38	12	15,157.50	3.40
8	Kansas City, St. Joe & Council Bluffs.....	8	3,450.00	1.18	1	180.00	.58	3	1,443.00	2.75
9	St. Louis, Keokuk & Northwestern.....	7	2,700.00	1.06	16	4,296.00	.85	2	1,057.20	2.68
10	Chicago, Ft. Madison & Des Moines.....	10	5,400.00	1.48	2	845.00	1.16	2	2,422.18	3.46
11	Chicago, Iowa & Dakota.....	6	2,745.25	1.25				1	851.20	2.33
12	Chicago Great Western.....	86	63,901.42	2.06	117	59,340.00	1.40	113	150,541.26	3.65
13	Chicago, Milwaukee & St. Paul.....	291	158,456.75	1.74	816	391,763.93	1.53	385	365,025.06	3.48
14	Chicago, Rock Island & Pacific.....	169	99,103.20	1.89	213	100,668.48	1.54	153	208,921.98	4.52
15	Chicago & North-Western.....	200	117,941.25	1.93	355	168,316.86	1.52	444	488,284.15	3.61
16	Chicago, St. Paul, Minneapolis & Omaha.....	12	9,180.00	2.44	47	25,792.76	1.75	18	23,881.88	4.24
17	Sioux City & Pacific.....	13	9,770.00	2.40	62	31,791.51	1.81	13	23,252.32	4.37
18	Crooked Creek.....	2	891.15	1.43				1	918.37	2.55
19	Des Moines Northern & Western.....									
20	Dubuque & Sioux City.....	117	64,985.06	1.69	160	57,341.08	1.26	139	145,255.16	3.41
21	Stacyville Railroad.....	2	960.00	1.32						
22	Des Moines Union.....				30	16,721.24	1.64	3	2,488.24	2.45
23	Iowa Central.....	71	35,688.56	1.40	53	15,978.05	1.15	71	79,848.92	3.75
24	Albia & Centerville.....	2	1,250.00	1.71	2	158.13	.22			
25	Iowa Northern.....							1	1,020.00	3.40
26	Keokuk & Western.....	28	14,407.32	1.42	36	10,856.52	1.38	16	19,200.17	3.22
27	Mason City & Ft. Dodge.....	12	6,335.70	1.45	1	470.16	.66	3	3,863.20	3.61
28	Minneapolis & St. Louis.....	30	11,160.00	1.67	8	2,333.64	.82	17	17,800.07	3.54
29	Muscatine North & South.....	5		1.90	3		1.14	3		
30	Omaha & St. Louis.....	10	5,952.14	1.65	5	2,191.94	2.26	7	7,823.99	3.54
31	Willmar & Sioux Falls.....	12	2,436.92	1.82	22	2,688.11	1.46	7	2,680.61	3.99
32	Tabor & Northern.....	1	480.00	1.53				1	780.00	2.49
33	Union Pacific.....									
34	Wabash.....	8	4,495.09	1.93	19	9,553.26	1.61	10	12,558.33	4.04
35	Winona & Western.....	3	1,651.15	1.51	1	316.21	1.30	6	1,247.49	3.61

NARROW GAUGE ROADS.										
36	Burlington & Northwestern.....	8	3,513.31	1.49	3	1,133.09	1.21	2	2,470.70	3.90
37	Burlington & Western.....	14	5,499.40	1.26	3	1,400.75	1.49	5	5,390.05	3.44
Total! .....		1,421	\$ 816,795.68		2,564	\$ 1,147,723.68		1,772	\$ 2,035,054.66	

TABLE No. 1—RAILROAD EMPLOYES AND SALARIES—IOWA—1900—CONTINUED.

Marginal number.	RAILROADS	FIREMAN.			CONDUCTORS.			OTHER TRAIN MEN.		
		No.	Total yearly compensation.	Average daily compensation.	No.	Total yearly compensation.	Average daily compensation.	No.	Total yearly compensation.	Average daily compensation.
1	Ames & College.....				1	\$ 570.60	\$ 1.56			
2	Atchison, Topeka & Santa Fe.....	58	\$ 46,615.50	\$ 2.81	20	24,194.04	3.03	38	\$ 21,194.16	\$ 2.06
3	Boone Valley.....									
4	Burlington, Cedar Rapids & Northern.....	114	81,485.00	2.30	78	82,330.99	3.51	168	104,111.94	1.91
5	Cedar Rapids, Garner & North-Western.....	1	704.25	1.93	1	939.00	2.57	2	1,552.00	2.12
6	Chicago, Burlington & Quincy.....	182	127,173.59	1.91	124	140,561.73	3.11	295	196,507.79	1.77
7	Chicago, Burlington & Kansas City.....	12	8,594.16	1.89	11	12,365.64	3.21	22	14,450.04	1.53
8	Kansas City, St. Joe & Council Bluffs.....	2	775.44	1.50						
9	St. Louis, Keokuk & North-Western.....	2	928.92	1.40	2	1,678.92	2.49	3	2,441.40	2.11
10	Chicago, Ft. Madison & Des Moines.....	2	1,614.50	2.31	2	1,947.91	2.81	3	2,119.65	1.94
11	Chicago, Iowa & Dakota.....	1	511.79	1.40	1	724.04	2.03	2	1,021.54	1.39
12	Chicago Great-Western.....	113	90,739.00	2.20	64	97,744.00	2.90	150	85,310.00	1.50
13	Chicago, Milwaukee & St. Paul.....	385	261,531.10	2.30	259	269,874.07	3.33	521	321,234.05	1.97
14	Chicago, Rock Island & Pacific.....	153	132,098.96	2.85	122	134,496.92	3.07	217	149,362.60	2.30
15	Chicago & North-Western.....	517	338,824.66	2.20	338	316,379.56	3.23	688	401,654.40	2.04
16	Chicago, St. Paul, Minneapolis & Omaha.....	18	14,565.91	2.59	11	11,328.87	3.29	25	16,324.42	2.09
17	Sioux City & Pacific.....	13	13,818.88	2.60	6	7,828.09	4.17	15	10,715.57	2.45
18	Crooked Creek.....	1	540.00	1.73	1	540.00	1.73			
19	Des Moines Northern & Western.....									
20	Dubuque & Sioux City.....	133	87,099.69	2.04	84	88,638.75	3.48	175	121,639.20	2.14
21	Staceyville Railroad.....									
22	Des Moines Union.....	3	1,616.00	1.59						
23	Iowa Central.....	72	43,406.05	2.04	47	46,530.94	2.93	101	55,793.79	1.92
24	Albia & Centerville.....									
25	Iowa Northern.....	1	660.00	2.22	1	720.00	2.40	2	1,080.00	1.80
26	Keokuk & Western.....	18	11,361.85	1.82	13	12,843.42	3.12	21	13,073.67	1.78
27	Mason City & Ft. Dodge.....	3	2,514.68	2.36	3	2,806.32	2.61	4	2,719.57	1.87
28	Minneapolis & St. Louis.....	18	10,912.43	2.12	11	10,735.83	3.16	20	14,403.16	2.01
29	Muscatine North & South.....	3			2			3		
30	Omaha & St. Louis.....	8	5,303.07	2.09	5	4,972.84	3.04	8	5,212.50	1.90
31	Wilmar & Sioux Falls.....	7	1,553.37	3.21	8	1,799.57	3.20	20	2,185.73	2.03
32	Sioux City & Northern.....									
33	Tabor & Northern.....	1	480.00	1.53	1	480.00	1.53			
34	Union Pacific.....									
35	Wabash.....	10	7,204.24	3.32	8	9,589.25	3.77	13	9,078.54	2.24

36	Winona & Western.....	0	672.17	2.00	4	811.48	3.10	7	719.42	1.00
	NARROW GAUGE ROADS.....									
37	Burlington & Northwestern.....	2	1,818.85	2.91	2	1,239.58	1.98	2	990.92	1.58
38	Burlington & Western.....	5	3,898.70	2.49	5	3,951.10	2.59	8	4,905.65	1.56
	Total.....	1,864	\$ 1,299,038.82		1,235	\$ 1,258,621.66		2,533	\$ 1,553,202.21	



TABLE No 1.—RAILROAD SALARIES—IOWA—CONTINUED. 1900.

Marginal number	RAILROADS.	SECTION FOREMEN.			OTHER TRACKMEN.			SWITCHMEN, FLAGMEN AND OTHERS.		
		Number.	Total yearly compensation.	Average daily compensation.	Number	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
1	Ames & College.....	1	\$ 468.25	\$1.28						
2	Atchison, Topeka & Santa Fe.....	4	2,280.00	1.58	41	\$ 13,367.28	\$1.30	13	\$ 9,193.08	\$2.88
3	Boone Valley.....									
4	Burlington, Cedar Rapids & Northern.....	165	90,233.65	1.50	635	285,497.00	1.44	61	47,890.95	2.48
5	Cedar Rapids, Garner & Northwestern.....	3	1,620.00	1.47	9	3,529.20	1.25			
6	Chicago, Burlington & Quincy.....	176	90,866.38	1.41	1,133	379,355.52	1.07	178	123,275.05	1.90
7	Chicago, Burlington & Kansas City.....	14	6,720.00	1.31	57	19,551.00	1.10	1	600.00	2.11
8	Kansas City, St. Joe & Council Bluffs.....	12	6,204.00	1.42	73	28,185.72	1.23	2	1,200.00	1.64
9	St. Louis, Keokuk & Northwestern.....	9	4,380.00	1.33	34	12,002.88	1.13	3	2,416.08	2.57
10	Chicago, Ft. Madison & Des Moines.....	10	5,520.00	1.51	34	13,194.20	1.25			
11	Chicago, Iowa & Dakota.....	3	1,350.00	1.23	10	3,693.30	1.22			
12	Chicago Great Western.....	79	44,411.38	1.55	533	245,120.70	1.26	47	42,796.25	2.50
13	Chicago, Milwaukee & St. Paul.....	280	151,666.71	1.73	948	365,886.67	1.23	401	247,814.85	1.98
14	Chicago, Rock Island & Pacific.....	192	110,790.00	1.84	1,266	412,578.00	1.27	143	92,091.00	2.06
15	Chicago & North-Western.....	290	144,358.95	1.79	1,889	483,074.01	1.31	204	197,382.30	2.23
16	Chicago, St. Paul, Minneapolis & Omaha.....	13	7,155.00	1.76	68	31,824.47	1.50	18	13,509.10	2.40
17	Sioux City & Pacific.....	14	7,200.00	1.64	59	16,556.70	1.29	25	21,186.91	2.26
18	Crooked Creek.....	2	1,020.00	1.63	4	1,409.01	1.25			
19	Davenport, Rock Island & Northwestern.....									
20	Dubuque & Sioux City.....	128	57,634.15	1.64	974	310,348.45	1.36	89	55,350.79	1.92
21	Stacyville Railroad.....	1	480.00	1.53	3	698.45	1.20			
22	Des Moines Union.....	2	1,380.00	1.80	21	10,762.00	1.29	29	14,884.12	1.75
23	Iowa Central.....	58	32,763.10	1.47	363	82,012.72	1.25	44	29,375.65	2.01
24	Albia & Centerville.....	4	2,115.00	1.48	17	4,516.95	1.25			
25	Iowa Northern.....	1	600.00	2.00	7	3,036.94	1.50			
26	Keokuk & Western.....	35	18,880.80	1.57	100	39,591.00	1.30	15	5,515.51	1.86
27	Mason City & Ft. Dodge.....	14	7,138.83	1.40	70	16,029.85	1.44			
28	Minneapolis & St. Louis.....	27	13,500.00	1.49	60	11,848.44	1.25	5	3,047.16	2.04
29	Muscatine North & South.....	3		1.47	18		1.25			1.29
30	Omaha & St. Louis.....	12	6,166.20	1.43	38	13,191.59	1.10	2	1,223.84	1.90
31	Wilmar & Sioux Falls.....	13	1,953.28	1.46	73	6,118.53	1.28	12	1,769.58	1.60
32	Tabor & Northern.....	1	480.00	1.53	4	1,360.00	1.25			
33	Wabash.....	7	3,703.50	1.79	27	10,174.37	1.20	11	7,245.32	2.09

34	Winona & Western.....	3	1,409.23	1.49	8	1,804.49	1.25			
35	NARROW GAUGE ROADS.									
35	Burlington & Northwestern.....	8	4,545.40	1.82	22	9,327.80	1.35	2	1,573.95	7.51
36	Burlington & Western.....	13	6,661.40	1.64	36	15,064.95	1.34	1	549.00	1.75
	Total.....	1,600	\$ 835,645.21		8,664	\$ 2,850,068.21		1,369	\$ 910,953.49	

TABLE No. 7—RAILROAD SALARIES—IOWA—CONTINUED. 1900.

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NINTH BIENNIAL REPORT OF THE

[No. 19]

1902]

BUREAU OF LABOR STATISTICS

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Marginal number.	RAILROADS.	TELEGRAPH OPERATORS.			EMPLOYEES ACCOUNT. FLOATING EMPLOYMENT.			ALL OTHER EMPLOYEES AND LABORERS.		
		Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.	Number.	Total yearly compensation.	Average daily compensation.
1	Ames & College.....	6	\$ 2,876.04	\$1.60				1	\$ 240.00	\$ .65
2	Atchison, Topeka & Santa Fe.....							53	22,930.92	1.91
3	Boone Valley.....									
4	Burlington, Cedar Rapids & Northern.....	71	39,975.00	1.75	17	\$ 18,815.55	\$ 3.10	2.51	155,583.28	...
5	Cedar Rapids, Garner & Northwestern.....									
6	Chicago, Burlington & Quincy.....	116	75,400.60	1.80				491	248,389.83	1.62
7	Chicago, Burlington & Kansas City.....	3	1,993.80	1.82				8	5,392.44	2.15
8	Kansas City, St. Joe & Council Bluffs.....	3	1,099.92	1.00				9	5,528.28	1.96
9	St. Louis, Keokuk & Northwestern.....	1	570.00	1.56				4	2,425.80	1.94
10	Chicago, Ft. Madison & Des Moines.....	1	600.00	1.64				3	1,422.11	1.61
11	Chicago, Iowa & Dakota.....									
12	Chicago Great Western.....	54	35,463.50	1.85				244	179,802.04	2.12
13	Chicago, Milwaukee & St. Paul.....	269	176,047.98	2.09				1,718	1,207,549.54	2.13
14	Chicago, Rock Island & Pacific.....	78	53,370.00	2.29				177	115,627.32	2.10
15	Chicago & North-Western.....	270	157,169.14	1.90				1,640	720,601.57	1.85
16	Chicago, St. Paul, Minneapolis & Omaha.....	12	7,792.69	2.07				59	32,388.76	1.75
17	Sioux City & Pacific.....	8	3,801.00	1.52				8	2,507.53	1.80
18	Crooked Creek.....							2	290.16	1.50
19	Davenport, Rock Island & Northwestern.....									
20	Dubuque & Sioux City.....	73	47,177.52	1.70				462	224,436.67	1.73
21	Stacyville Railroad.....									
22	Des Moines Union.....	2	900.00	1.64				29	9,784.14	1.52
23	Iowa Central.....	39	20,620.81	1.57				186	97,338.90	1.83
24	Albia & Centerville.....	1	420.00	1.15				1	419.65	1.15
25	Iowa Northern.....									
26	Keokuk & Western.....	24	7,553.37	1.24				9	3,022.26	1.85
27	Mason City & Ft. Dodge.....	2	991.33	1.81				4	1,806.55	1.53
28	Minneapolis & St. Louis.....	10	3,323.10	1.16				27	13,797.00	1.68
29	Muscatine North & South.....	1	2.00	2.00				1	...	2.50
30	Omaha & St. Louis.....	4	2,560.45	1.88				13	6,183.49	1.42
31	Willmar & Sioux Falls.....	2	352.42	1.58				40	4,348.90	1.86
32	Tabor & Northern.....									
33	Wabash.....	5	3,496.68	2.12				13	9,058.91	2.23
34	Winona & Western.....	1	194.94	2.74	2	883.29	1.59	2	345.70	1.80
35	Burlington & Northwestern.....	2	908.35	1.45				13	6,882.60	1.83
36	Burlington & Western.....	1	1,030.30	3.29				13	7,078.55	1.74
	Total.....	1,059	\$ 647,689.00		19	\$ 19,608.84		5,420	\$ 3,085,183.06	

TABLE No. 8—RAILROAD EMPLOYES AND SALARIES—IOWA—1900—CONTINUED.

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NINTH BIENNIAL REPORT OF THE

[No. 19]

1902

BUREAU OF LABOR STATISTICS.

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Marginal number.	RAILROADS.	TOTAL, INCLUDING GENERAL OFFICERS.			TOTAL, EXCLUDING GENERAL OFFICERS.			DISTRIBUTION	
		No.	Total yearly compensation.	Average daily compensation.	No.	Total yearly compensation.	Average daily compensation.	General administration.	Maintenance of way and structure.
1	Ames & College.....	4	\$ 1,823.65						
2	Atchison, Topeka & Santa Fe.....	635	386,823.96	\$ 2.12	635	386,823.96	\$ 2.12	\$ 8,623.32	\$ 27,041.28
3	Marshalltown & Dakota.....								
4	Burlington, Cedar Rapids & Northern.....	2,848	1,741,472.70	1.95	2,837	1,701,362.57	1.91	90,094.28	538,694.37
5	Cedar Rapids, Garner & Northwestern.....	31	15,948.20						
6	Chicago, Burlington & Quincy.....	4,886	2,794,924.83	1.74	4,868	2,714,199.83	1.70	123,662.50	783,813.43
7	Chicago, Burlington & Kansas City.....	158	92,362.44	1.71	158	92,362.44	1.71		2,622.15
8	Kansas City, St. Joe & Council Bluffs.....	134	59,170.92	1.37	134	59,170.92	1.37		36,232.48
9	St. Louis, Keokuk & Northwestern.....	96	44,604.96	1.42	96	44,604.96	1.42		17,595.78
10	Chicago, Fort Madison & Des Moines.....	84	46,718.48	1.67	81	42,095.08	1.56	7,566.53	20,136.31
11	Chicago, Iowa & Dakota.....	30	14,432.72	1.38	28	12,867.72	1.33	1,595.00	5,273.30
12	Chicago Great Western.....	1,927	1,337,189.07	1.90	1,927	1,337,189.07	1.90	6,199.80	354,299.21
13	Chicago, Milwaukee & St. Paul.....	7,244	4,018,263.62	2.04	7,235	4,549,523.55	2.01	202,485.76	1,152,673.68
14	Chicago, Rock Island & Pacific.....	3,466	1,954,483.98	1.93	3,466	1,954,483.98	1.93	18,600.00	724,743.09
15	Chicago & North-Western.....	8,210	4,327,146.03	1.97	8,210	4,327,146.03	1.97		1,548,533.59
16	Chicago, St. Paul, Minneapolis & Omaha.....	423	272,406.89	2.06	423	272,406.89	2.06		
17	Sioux City & Pacific.....	650	372,528.61	1.88	655	372,528.61	1.89	50.00	30,331.74
18	Crooked Creek.....	18	9,068.69	1.89	15	6,588.69	1.58	3,080.00	2,429.01
19	Davenport, Rock Island & Northwestern.....	73	22,799.99		70	19,550.08			
20	Dubuque & Sioux City.....	2,999	1,530,007.70	1.82	2,989	1,504,807.78	1.80	10,500.00	547,224.00
21	Stateville Railroad.....	6	2,138.45	1.32	6	2,138.45	1.32		1,785.45
22	Des Moines Union.....	186	88,132.77	1.66	184	84,932.77	1.62	4,998.00	15,175.20
23	Iowa Central.....	1,551	779,020.04	1.87	1,538	744,600.86	1.81	91,363.38	151,100.49
24	Albia & Centerville.....	35	9,908.33	1.28	35	9,908.33	1.28		8,080.20
25	Iowa Northern.....	16	8,304.94	1.85	15	7,437.94	1.67	870.00	3,801.00
26	Keokuk & Western.....	582	240,799.77	1.71	579	238,982.68	1.67	34,032.30	62,130.82
27	Mason City & Fort Dodge.....	152	69,211.59	1.75	145	63,220.38	1.65	8,570.01	25,742.64
28	Minneapolis & St. Louis.....	299	143,414.06	2.03	292	130,189.66	1.94	2,317.80	41,105.04
29	Muscatine North & South.....	52			47				
30	Omaha & St. Louis.....	131	72,172.35	1.65	131	72,172.35	1.65		25,223.00
31	Willmar & Sioux Falls.....	271	37,491.02	1.87	271	37,491.02	1.87	3,021.77	9,500.20
32	Sioux City & Northern.....								
33	Tabor & Northern.....	11	6,460.00		9	4,060.00		2,400.00	2,220.00

34	Wabash.....	181	120,345.88	2.13	180	116,931.54	2.08	8,220.04	19,159.09
35	Winona & Western.....	76	14,070.36	1.83	72	13,075.86	1.76	1,159.43	4,855.61
NARROW GAUGE ROADS.									
36	Burlington & Northern.....	103	55,699.75	1.84	100	53,411.33	1.80	4,844.95	20,755.80
37	Burlington & Western.....	122	64,401.60	1.78	119	61,795.02	1.73	5,550.75	32,235.90
Total.....		37,696	\$ 21,363,319.55		37,550	\$ 21,041,631.20		\$ 640,775.62	\$ 6,216,773.46

TABLE No. 8—RAILROAD EMPLOYES AND SALARIES—IOWA—1900—CONTINUED.

Marginal number.	RAILROADS.	DISTRIBUTION.		ENTIRE LINE.					
		Maintenance of equipment.	Conducting transportation.	TOTAL, INCLUDING GENERAL OFFICERS.			TOTAL, EXCLUDING GENERAL OFFICERS.		
				No.	Total yearly compensation.	Average daily compensation.	No.	Total yearly compensation.	Average daily compensation.
1	Ames & College.....			4	\$ 1,823.65		4	\$ 1,823.65	
2	Archison, Topeka & Santa Fe.....	\$ 171,154.20	\$ 180,005.16	19,515	10,444,107.00	\$ 2.03	19,459	10,056,727.68	\$ 1.97
3	Marshalltown & Dakota.....								
4	Burlington, Cedar Rapids & Northern.....	526,356.55	586,347.50	3,133	1,888,020.00	1.02	3,122	1,847,000.87	1.89
5	Cedar Rapids, Garner & Northwestern.....			31	15,048.20		31	15,048.20	
6	Chicago, Burlington & Quincy.....	697,211.99	1,199,236.94	25,110	15,657,752.81	1.89	24,961	15,038,103.81	1.83
7	Chicago, Burlington & Kansas City.....	61,447.14		361	185,301.58	1.56	360	181,051.50	1.53
8	Kansas City, St. Joe & Council Bluffs.....	12,947.32	9,991.12	1,843	1,127,453.70	1.82	1,834	1,095,959.00	1.77
9	St. Louis, Keokuk & Northwestern.....	9,714.21	17,294.97	1,671	942,211.91	1.66	1,663	919,588.20	1.63
10	Chicago, Fort Madison & Des Moines.....	4,005.40	14,949.24	84	40,718.48	1.67	81	42,005.98	1.56
11	Chicago, Iowa & Dakota.....	1,215.00	6,307.42	30	14,450.72	1.38	28	12,885.72	1.33
12	Chicago Great Western.....	297,101.29	679,588.77	3,799	2,722,971.55	1.96	3,787	2,656,651.15	1.92
13	Chicago, Milwaukee & St. Paul.....	721,105.84	2,541,908.34	24,317	15,502,731.20	2.04	24,288	15,261,911.91	2.01
14	Chicago, Rock Island & Pacific.....	188,667.59	1,022,473.10	12,988	7,850,501.72	2.04	12,956	7,706,267.84	2.00
15	Chicago & North-Western.....	290,514.70	2,488,097.74	30,041	16,972,641.70	2.02	30,020	16,798,258.50	2.00
16	Chicago, St. Paul, Minneapolis & Omaha.....			5,964	3,948,124.78	2.10	5,936	3,802,346.68	2.04
17	Sioux City & Pacific.....	183,958.85	158,238.02	722	400,571.00	1.87	706	395,807.04	1.87
18	Crooked Creek.....	500.00	3,599.68	18	6,068.69	1.89	15	6,588.69	1.58
19	Davenport, Rock Island & Northwestern.....			73	22,799.99		70	19,550.63	
20	Dubuque & Sioux City.....	164,623.38	807,640.32	3,158	1,681,452.80	1.88	3,138	1,613,705.47	1.82
21	Etacville Railroad.....		960.00	6	2,138.45	1.32	6	2,138.45	1.32
22	Des Moines Union.....	10,976.00	56,983.57	186	88,132.77	1.66	184	84,932.77	1.62
23	Iowa Central.....	216,314.00	318,242.77	1,901	942,507.12	1.87	1,888	905,237.34	1.81
24	Albia & Centerville.....		1,828.13	35	9,908.33	1.28	35	9,908.33	1.28
25	Iowa Northern.....		3,632.94	16	8,303.94		15	7,413.94	
26	Keokuk & Western.....	55,712.46	97,834.19	769	313,265.83	1.72	766	322,538.74	1.67
27	Mason City & Fort Dodge.....	15,172.23	19,726.21	152	99,211.59	1.75	145	63,220.35	1.65
28	Minneapolis & St. Louis.....	13,610.77	76,381.95	1,708	898,370.02	1.98	1,701	855,870.02	1.99
29	Muscatine North & South.....								
30	Omaha & St. Louis.....	11,708.58	35,240.77	368	206,889.86	1.70	352	200,562.86	1.69
31	Wilmar & Sioux Falls.....	5,083.78	19,825.27	1,530	261,986.35	1.77	1,519	260,388.01	1.81
32	Sioux City & Northern.....			232	103,677.88	2.79	219	79,491.65	1.93
33	Tabor & Northern.....		1,840.00	11	6,400.00		9	4,000.00	
34	Wabash.....	25,578.67	67,188.08	9,028	6,017,293.90	2.13	8,990	5,816,577.15	2.08
35	Winona & Western.....	2,442.50	5,613.39	173	79,577.05	1.77	169	74,477.05	1.70
NARROW GAUGE ROADS.									
36	Burlington & Northwestern.....	16,444.25	13,654.75	103	55,699.75	1.84	100	53,411.33	1.80
37	Burlington & Western.....		26,624.95	122	64,411.60	1.78	119	61,795.02	1.73
	Total.....	\$ 3,703,777.76	\$10,452,344.33	149,198	\$ 88,565,208.51		148,686	\$ 86,276,307.06	

TABLE No. 2—WAGES OF RAILROAD  
RATE FOR A

Marginal number.	LOCALITY.	Black smiths.	Boiler makers.	CAR SHOP MECHANICS.				
				Coach carpenters.	Car carpenters.	Coach truckmen.	Car truckmen.	Car repairers.
1	Boone	\$ 2.75	\$ 2.75	(a)	(b) \$2.30	(a)	\$ 1.60	\$ 1.60
2	Burlington	(p)						
3	Cedar Rapids	(b) 1.75		(d) 1.85	(f) 1.35	(c) 1.50	(c) 1.25	(c) 1.50
4	Clinton	(p)		(f) 1.80	(f) 1.80	1.60	1.50	1.40
5	Creston (i)	2.75	2.75	2.50	2.25	2.25	2.00	1.75
6	Des Moines	2.75	(k) 2.75	(d) 2.00	(f) 1.75	(c) 1.60	1.50	1.60
7	Davenport	(p)						
8	Dubuque	(p)						
9	Estherville	(p)						
10	Fort Dodge	2.85	2.75	(f) 1.80	1.80		(c) 1.25	(c) 1.25
11	Fort Madison	(p)						
12	Marshalltown	(p)	(p)	(d) 2.00	(d) 1.80	(f) 1.50	(c) 1.40	1.40
13	Missouri Valley	(k) 2.75	2.75	(b) 2.25	1.75	(f) 1.75	1.25	(c) 1.25
14	Oelwein	(i) 2.25	3.00	(d) 2.00	(f) 1.75	(d) 1.75	1.75	(f) 1.75
15	Ottumwa	(p)						
16	Sioux City (o)	2.50	2.85	(b) 2.00	(f) 1.50	(c) 1.25	(c) 1.25	(c) 1.25
17	Waterloo	2.85	2.85	(a)	(d) 1.90	(a)	(a)	(c) 1.35

Figures quoted in this table are the minimum rates reported in every instance higher or

- a Reported, none employed.  
 b Maximum rate paid \$2.50 per day of ten hours.  
 c Maximum rate paid \$1.75 per day of ten hours.  
 d Maximum rate paid \$2.25 per day of ten hours.  
 f Maximum rate paid \$2.00 per day of ten hours.  
 i Maximum rate paid \$2.75 per day of ten hours.  
 k Maximum rate paid \$3.00 per day of ten hours.

SHOP EMPLOYES IN IOWA.  
TEN HOUR DAY.

Marginal number.	CAR SHOP MECHANICS.						Machinists	Black smiths, boiler makers and machinists helpers.
	Car inspectors.	Mill men wood machinists.	Painters.	Pattern makers	Wood turners.	Platform builders.		
1	\$ 1.60	(a)	(b) \$1.80	(a)	(a)	\$ 2.50	\$ 2.60	(c) \$ 1.35
2								
3	(c) 1.50	(d) 1.50	(a) 1.50	2.85	1.65	(f) 1.75	2.60	(e) 1.30
4	1.40	(b) 1.75	1.40	2.35	2.35		2.60	(c) 1.50
5	2.00	2.75	2.25	3.00	2.25	2.25	2.75	(c) 1.50
6	1.75	(a) 2.00	(a) 2.00	(b) 2.25	(b) 2.25	2.30	(k) 2.70	(c) 1.50
7								
8								
9								
10	(c) 1.25	(a)	(a)	(a)	(a)	(a)	(f) 2.60	(c) 1.30
11								
12	(d) 2.00	(f) 1.75	(a) 1.75	(i) 2.50	(a)	2.25	2.75	(c) 1.40
13	(m) 40.00	(d) 1.25	(b) 1.35	2.25	(b) 2.00	2.25	(k) 2.75	(c) 1.40
14	1.75	(b) 1.75	1.50	2.25	1.75	1.75	2.90	(c) 1.50
15								
16	(p) 1.75	(i) 2.00	(i) 1.50	(a)	(i) 2.00	(f) 1.50	(k) 2.85	(c) 1.50
17	(n) 40.00	(a)	(a) 2.00	(a)	(a)	(a)	2.85	(c) 1.30

maximum rates given under foot notes.

i Maximum rates earned, all work done on piece work system.

m \$40.00 per month minimum, \$65.00 per month maximum.

n \$40.00 per month minimum, \$45.00 per month maximum.

Overtime exceeding to hours per day generally paid at the rate of time and one half.

o Overtime to car shop employees at this point paid on straight time rates.

p Not reported.

## REMARKS BY RAILROAD EMPLOYES

## IN TRANSPORTATION SERVICE.

Two questions of importance concerning the safety and welfare of railroad employes were included in the Trade union and Wage earners schedules, the first referring to the operation of trains with two engines and known as double headers, and the second dealing with the disciplinary systems in vogue on the various railroads governing the conduct of the employes.

Replies to these questions were by no means voluminous and do not justify being placed in a table, but are added as a supplement.

To the first enquiry:

Do you work on double header trains? Are they more dangerous than single header trains? What loss of life has resulted from double header trains from your lodge or division? The various railroad employes unions reported as follows:

CONDUCTORS—Seven unions report as being employed on double header trains, when occasion requires, and one union does not. They all claim the work is far more dangerous. No loss of life to conductors is reported resulting from accidents through this method of operation.

ENGINEERS—Nine unions report running double headers and two do not. They all report the practice far more dangerous; one union saying the risks are 100 per cent. greater, and that five lives have been lost during 1900 in accidents to double headers. One union reports the practice has been stopped on their division on account of the risks being too great. A second says it is being discontinued on their division as rapidly as possible, and a third declares there should be a state law prohibiting double headers.

FIREMEN—Ten unions report their members employed on double headers. All unite in saying they are more dangerous; four

deaths have occurred from two unions, and another reports that the records are not complete but there have been several deaths, three taking place on account of double headers going through a bridge. One union wants the practice prohibited by law.

TRAINMEN—Six unions report they are employed on trains so operated; all admit they are more dangerous. One union reports having lost two members and says the practice should by all means be discontinued. Another union wants it prohibited by state law.

The second question: Are you working under the demerit system or the time losing system for offenses? Which do you prefer? and, Why?

CONDUCTORS—Eleven replied; eight of whom work under the time losing system and three work under both systems; seven prefer the demerit system because: It is more fair; employes are more careful of their record under the demerit plan; if demerit plan is conducted fairly it is preferable because time lost can never be regained; it is less humiliating. Obvious reasons: It is not so hard on innocent sufferers, such as a man's family. Two report as being in favor of the time losing system because: Have had, no experience under the demerit plan, and because a man knows at once the full seriousness of his offense. One reports having no preference; if a man's service is not satisfactory dismiss him.

ENGINEERS—Sixteen referred to the questions; four of whom work under the time losing system, nine under demerit and three under both. Fifteen prefer the demerit plan for the following reasons: The men stand a better show for fair treatment; there is no consequent loss of wages; a man's family does not suffer for his shortcomings on account of loss of income; it is more just providing the plan is conducted fairly and as originally intended. It promotes a better feeling between officials and employes; and one reports, it is perfectly immaterial which system is adopted.

FIREMEN—Eleven answered the enquiry; ten of whom work on the demerit plan and one under both systems. Ten prefer the demerit for the following reasons: No time is lost, work is steady, it is a more reasonable system, and a man will be more zealous and careful of his record. One prefers the time losing

plan because a man is more careful not to lose time; it affects him more than by simply receiving a black mark on his record.

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TRAINMEN—Four referred to it; three of whom work under the time losing system and one under both systems. Three prefer the time losing plan because, it is considered better; when a man's time is served his punishment is over and there are no more black marks against him; and I have lost only five days time for offenses in five years service. One prefers the demerit plan because a man's family does not suffer as it does when an employe has to serve time.

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## TRADE UNIONS IN IOWA.

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## TRADE UNIONS IN IOWA.

Organized labor in Iowa has kept pace with the labor movement throughout the country during the last decade by attracting to its membership those of our citizens who are designated as wage earners.

The following tables show 396 recorded trade unions in Iowa. There are 42 Threshermen's Associations in the state from which no information could be obtained for reasons best known to themselves. (They should not be classed as labor unions.)

Typographical Union No. 22 of Dubuque was organized in 1858, and the records show this to be the first trade union established in the state. The first recorded division of the Brotherhood of Locomotive Engineers in the state is No. 112 of Creston, organized in 1869, and the first lodge of the Brotherhood of Locomotive Firemen No. 161 of Burlington was organized in 1875.

Cigarmakers' local No. 111 of Des Moines, the pioneer of this craft in the state, was organized in 1881.

The labor union movement grew slowly but steadily as industries were introduced in the state, showing a roster of 173 unions at the beginning of 1890, but no record of the membership has been obtainable of them at that date.

Between 1890 and 1897 thirty-nine new unions were added and since 1897 the union movement has made remarkable strides; 184 new organizations being added during the past four years.

Forty-eight (48) crafts now have organizations in eighty-eight (88) localities with a total membership of twenty-six thousand and sixty-eight, (26,068) in the state.

The movement has been successful in Iowa by pursuing a careful and reasonable course of action; many new schedules and contracts with employers have been made and renewed, reflecting great credit on all concerned.

The records of these successes should be more carefully made by the trade unions, and reported to the Bureau for compilation

in order that the public may be informed of the successful adjustments that are accomplished without strikes.

In preparing the tables of this chapter no effort has been made to show an average rate of wages, as it would be misleading and incorrect unless a complete census of all union men could be made; and such a task is beyond the facilities of the bureau with its limited force and small appropriation.

A much better system was adopted and that was to ascertain the minimum wage for each craft and which is recorded in Table No. 1 for each locality. Statements are frequently made that associations of wage earners as conducted now, tend to drag down the more skilled to a common level, and that trade unions are a hindrance to a skillful workman hindering him from securing the proportionate increase of remuneration due to such skill or ability.

In order to ascertain whether this was a fact or mere assertion special efforts have been made to ascertain the maximum rates of wages in each craft.

The figures quoted under column "Daily wages of most skilled," disproves these statements and emphatically establish the advisability of adhering to the minimum wage principle, so that protection will be afforded the varying grades of skill and ability.

In Table No. 2, minimum and maximum rates of wages are averaged for each craft together with the average working hours per day throughout the state.

In Table No. 3, the total number of unions and members in each locality are shown.

To secure the data upon which the tables are based the attached letter and blanks were sent to all the labor organizations of the state, replies being obtained from 385 locals.

Special thanks are due to the local and national secretaries who so kindly responded with statistical data, but the bureau would recommend that the various local unions select a statistician to collect and distribute facts relating to their financial, industrial, and social conditions and to whom application could be made with the assurance that information could be readily secured when requested, and so relieve the oft-times overworked secretaries.

The Commissioner wishes to acknowledge the exceptional kindness accorded the bureau by the many active union men in the several localities who secured data by personal effort after other means had failed and furnished same to him.

## STATE OF IOWA.

*Bureau of Labor Statistics, Des Moines.*

GENTLEMEN—The Commissioner of the Bureau of Labor Statistics is directed by law (chapter 8, section 2470, revised Code of 1897) "to collect and systematize in his biennial reports statistical details relating to all departments of labor in the state, especially its relations to the commercial, social and educational conditions of the laboring classes."

Labor organizations in Iowa having for their objects the general amelioration of the conditions of toiling humanity, it is proper that a chapter in the forthcoming report be devoted to this large body of conservative citizens.

Secretaries will kindly fill out this blank as completely as possible and add under "remarks" what suggestions your associates may consider of advantage to the people at large.

Yours truly,

C. F. WENNERSTRUM, *Commissioner.*

1. Name of Organization ..... No. of Local .....
2. Location, City ..... County.....
3. When organized .....
4. Largest membership ..... What year? .....
5. Smallest membership ..... What year? .....
6. Present membership .....
7. Maximum hours for a day's work .....
8. Minimum rate of pay.....
9. Earnings of the most skilled .....
10. Does your organization make an annual agreement with your employers for wages and hours?.....
11. Do you insist on union men being employed only? .....
12. Does your organization resort to strikes to settle disputes?.....
13. How many strikes did you have in 1899?.....
14. Their duration .....
15. Cost of strike benefits in 1899.....
16. Amount of sick benefit paid .....
17. Amount funeral benefit.....
18. Dues, special assessments, etc. ....
19. Has your organization a library?.....
20. Do you discuss technical and economic subjects? .....
21. Do you give lectures?..... Or engage lecturers? .....
22. How many employed in your locality at your trade?.....
23. If in the railroad service, do you work on double-header trains?.....
24. Are they more dangerous than single headers?.....
25. What loss of life has resulted from double-headers from your lodge or division? .....

## REMARKS.

Date ..... Sec.....  
P. O. ....

It will be observed that the following tables only cover questions one to eleven inclusive on blank:

Question No. 12, received a unanimous response that strikes were resorted to when all other means failed to settle disputes.

Questions Nos. 13, 14 and 15 are tabulated in detail under special chapter on strikes.

Questions Nos. 16, 17 and 18 were answered too indefinitely for tabulation, reference frequently being made to the national secretaries.

Question No. 19, relative to libraries connected with local unions, was answered in the negative, but many responded that the matter was being considered and favorable results were expected.

Questions Nos. 20 and 21, on discussion of technical and economic subjects and employment of lecturers, were answered generally in the affirmative.

Questions Nos. 22, 23, 24 and 25, relate to employment on railroads, and are compiled under separate chapter on railroad employes.

TABLE  
TRADE UNIONS  
Number, hours, wages  
and regulations.

Running number.	NAME OF ORGANIZATION.	Locality.
1	Bakers and Confectioners International Journeymen .....	No. .... Burlington. ....
2	Bakers and Confectioners International Journeymen .....	No. .... Des Moines. ....
3	Barbers, International Union, journeymen .....	No. .... Boone. ....
4	Barbers, International Union, journeymen .....	No. 110, Burlington. ....
5	Barbers, International Union, journeymen .....	No. 97, Cedar Rapids. ....
6	Barbers, International Union, journeymen .....	No. 236, Clinton. ....
7	Barbers, International Union, journeymen .....	No. 43, Des Moines. ....
8	Barbers, International Union, journeymen .....	No. .... Davenport. ....
9	Barbers, International Union, journeymen .....	No. .... Keokuk. ....
10	Barbers, International Union, journeymen .....	No. 19, Oskaloosa. ....
11	Barbers, International Union, journeymen .....	No. .... Ottumwa. ....
12	Barbers, International Union, journeymen .....	No. 46, Sioux City. ....
13	Blacksmiths, International Brotherhood of .....	No. 182, Cedar Rapids. ....
14	Blacksmiths, International Brotherhood of .....	No. 184, Des Moines. ....
15	Blacksmiths, International Brotherhood of .....	No. 162, Ottumwa. ....
16	Boiler Makers, International Brotherhood of .....	No. 161, Boone. ....
17	Boiler Makers, International Brotherhood of .....	No. 47, Des Moines. ....
18	Boiler Makers, International Brotherhood of .....	No. 212, Oelwein. ....
19	Boiler Makers, International Brotherhood of .....	No. 244, Sioux City. ....
20	Bookbinders, International Brotherhood of .....	No. .... Cedar Rapids. ....
21	Bookbinders, International Brotherhood of .....	No. 71, Des Moines. ....
22	Bookbinders, Girls' Organization .....	No. .... Des Moines. ....
23	Bottlers, Beer and Pop Union of .....	No. 7464, Ottumwa. ....
24	Brewery Workers, International Union of United .....	No. 98, Davenport. ....
25	Brewery Workers, International Union of United .....	No. 178, Sioux City. ....
26	Brewery Workers, International Union of United .....	No. .... Burlington. ....

No. 1.  
IN IOWA.  
and regulations.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (Per)	Daily wages of the most skilled.		
1	1901	18	12	\$ 1.25	Day...	\$ 1.75	No. ....	(a)
2	1901	40	11	1.75	Day...	2.50	(a)	(a)
(a) Not reported.								
3	1900	20	(c) 12	\$ 7.00	Week	\$ 2.00	No. ....	30
4	1898	20	(c) 15	7.00	Week	2.15	No. ....	32
5	1897	50	(c) 13	12.00	Week	3.00	Yes. ....	50
6	1900	20	(c) 12	10.00	Week	2.50	Yes. ....	46
7	1888	75	(c) 11	(d) 60	Perc't	.....	Yes. ....	140
8	1898	38	12	10.50	Week	2.50	Yes. ....	52
9	1900	14	12	10.00	Week	2.00	Yes. ....	16
10	1899	22	(c) 13	9.00	Week	2.20	Yes. ....	30
11	1899	38	12	10.00	Week	2.75	Yes. ....	38
12	1899	53	(c) 12	(d) 60	Perc't	.....	Yes. ....	55
(a) Not reported. (d) Journeymen barbers often demand 60 per cent of their earnings as wages. (c) Saturdays 17 hours.								
13	1900	20	10	\$ 2.00	Day...	\$ 3.25	No. ....	20
14	1901	35	(a)	9	2.00	Day...	3.50	No. ....
15	1900	9	10	1.65	Day...	3.00	No. ....	36
(a) Blacksmiths secured nine hour day May 20, 1901, with no reduction in pay and without strike.								
16	1896	25	10	\$ 2.75	Day...	\$ 2.90	No. ....	26
17	1899	25	(a)	9	2.50	Day...	2.90	Yes. ....
18	1899	22	10	3.00	Day...	3.00	No. ....	23
19	1900	10	10	2.85	Day...	3.00	No. ....	14
(a) Secured a reduction of hours from 10 to 9 per day without strike June 1, 1901, and with no reduction in wages.								
20	1898	11	9	\$ 2.00	Day...	\$ 3.00	No. ....	11
21	1898	39	9	2.00	Day...	3.25	Yes. ....	30
22	1900	60	9	6.00	Week.	2.00	Yes. ....	60
23	1899	25	9	\$ 1.25	Day...	\$ 1.50	Yes. ....	25
24	1897	50	10	\$15.00	Week.	\$ 3.00	Yes. ....	50
25	1899	11	10	15.00	Week.	3.00	Yes. ....	11
26	1901	28	10	2.50	Day...	2.50	Yes. ....	28

TABLE No. 1—

Running number.	NAME OF ORGANIZATION.	Locality.
27	Bricklayers, International Union of America.....	No. 10, Burlington.....
28	Bricklayers, International Union of America.....	No. .... Boone.....
29	Bricklayers, International Union of America.....	No. 1, Cedar Rapids.....
30	Bricklayers, International Union of America.....	No. 6, Council Bluffs.....
31	Bricklayers, International Union of America.....	No. 2, Des Moines.....
32	Bricklayers, International Union of America.....	No. 7, Muscatine.....
33	Bricklayers, International Union of America.....	No. 8, Ottumwa.....
34	Bricklayers, International Union of America.....	No. 5, Sioux City.....

35	Brickmakers, National Alliance.....	Des Moines.....
36	Brickmakers, National Alliance.....	Lehigh.....
37	Broom Makers, International.....	Burlington.....
38	Broom Makers, International.....	Davenport.....
39	Broom Makers, International.....	Des Moines.....
40	Broom Makers, International.....	Dubuque.....

41	Carmen, Brotherhood of Railroad.....	Cedar Rapids.....
42	Carmen, Brotherhood of Railroad.....	Des Moines.....
43	Carmen, Brotherhood of Railroad.....	Missouri Valley.....
44	Carmen, Brotherhood of Railroad.....	Sioux City.....

45	Carpenters and joiners, United Brotherhood of.....	No. 315, Boone.....
46	Carpenters and joiners, United Brotherhood of.....	No. 534, Burlington.....
47	Carpenters and joiners, United Brotherhood of.....	No. 308, Cedar Rapids.....
48	Carpenters and joiners, United Brotherhood of.....	No. 364, Council Bluffs.....
49	Carpenters and joiners, United Brotherhood of.....	No. 554, Davenport.....
50	Carpenters and joiners, United Brotherhood of.....	No. 106, Des Moines.....
51	Carpenters and joiners, United Brotherhood of.....	No. 678, Dubuque.....
52	Carpenters and joiners, United Brotherhood of.....	No. 284, Fort Dodge.....
53	Carpenters and joiners, United Brotherhood of.....	No. .... Keokuk.....
54	Carpenters and joiners, United Brotherhood of.....	No. 767, Ottumwa.....

55	Cigar Makers International Union of America.....	No. 72, Burlington.....
56	Cigar Makers International Union of America.....	No. 454, Cedar Rapids.....
57	Cigar Makers International Union of America.....	No. 239, Clinton.....
58	Cigar Makers International Union of America.....	No. 325, Creston.....
59	Cigar Makers International Union of America.....	No. 177, Council Bluffs.....
60	Cigar Makers International Union of America.....	No. 774, Davenport.....
61	Cigar Makers International Union of America.....	No. 111, Des Moines.....
62	Cigar Makers International Union of America.....	No. 88, Dubuque.....
63	Cigar Makers International Union of America.....	No. 181, Fort Madison.....
64	Cigar Makers International Union of America.....	No. 60, Keokuk.....
65	Cigar Makers International Union of America.....	No. 120, Muscatine.....
66	Cigar Makers International Union of America.....	No. 155, Mt. Pleasant.....
67	Cigar Makers International Union of America.....	No. 277, Oskaloosa.....
68	Cigar Makers International Union of America.....	No. 223, Ottumwa.....
69	Cigar Makers International Union of America.....	No. 150, Sioux City.....

Cigarmakers work entirely on the piece work system; prices vary with quality of goods and price of goods.

70	Clerks' International Protective Association, Retail.....	No. 379, Albia.....
71	Clerks' International Protective Association, Retail.....	No. 389, Boone.....
72	Clerks' International Protective Association, Retail.....	No. 296, Cedar Rapids.....
73	Clerks' International Protective Association, Retail.....	No. 395, Centerville.....
74	Clerks' International Protective Association, Retail.....	No. 401, Chariton.....
75	Clerks' International Protective Association, Retail.....	No. 183, Clinton.....
76	Clerks' International Protective Association, Retail.....	No. 234, Council Bluffs.....
77	Clerks' International Protective Association, Retail.....	No. 405, Davenport.....
78	Clerks' International Protective Association, Retail.....	No. 30, Des Moines.....
79	Clerks' International Protective Association, Retail.....	No. 343, Knoxville.....
80	Clerks' International Protective Association, Retail.....	No. —, Keokuk.....

CONTINUED.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (per)	Daily wages of the most skilled.		
27	1891	48	9	\$ 0.45	Hour..	\$ 4.50	Yes....	48
28	1901	50	9	0.45	Hour..	5.40	No.....	60
29	1900	31	9	0.45	Hour..	4.50	Yes....	31
30	1899	27	8	0.50	Hour..	5.00	Yes....	45
31	1882	110	8	0.50	Hour..	5.00	Yes....	110
32	(a)						Yes....	(a)
33	1889	21	9	3.00	Day..	4.00	Yes....	21
34	1899	60	9	3.75	Day..	4.50	Yes....	60

(a) Not reported.

35	1901	280	9	\$ 1.40	Day..	\$ 3.70	Yes....	500
36	1901	50	10	1.60	Day..	2.00	No.....	60
37	1899	10	10	\$ 1.25	Day..	\$ 1.75	Yes....	10
38	1898	9	9	1.25	Day..	1.75	Yes....	43
39	1900	12	10	1.50	Day..	2.00	Yes....	20
40	1899	10	10	2.00	Day..	2.50	No.....	25

41	1881	65	10	\$ 1.70	Day..	\$ 2.00	No.....	
42	1901	35	10	1.25	Day..	3.25	No.....	
43	1901	60	10	1.25	Day..	2.50	No.....	
44	1901	65	10	1.25	Day..	2.50	No.....	

45	1898	30	9	\$ 2.25	Day..	\$ 2.50	No.....	75
46	1889	93	9	2.25	Day..	3.00	Yes....	200
47	1899	40	10	2.30	Day..	2.50	No.....	350
48	1899	86	8	2.40	Day..	3.00	Yes....	100
49	1899	125	9	3.00	Day..	3.00	Yes....	200
50	1898	290	8	3.25	Hour..	3.50	Yes....	320
51	1881	40	9	2.50	Day..	3.15	Yes....	500
52	1899	40	10	2.50	Day..	3.00	Yes....	200
53	1901	53	10	2.25	Day..	2.50	Yes....	53
54	1900	83	9	1.75	Day..	2.50	No.....	120

55	1880	93	8	\$ 9.00	Week	\$ 2.00	Yes....	93
56	1900	25	8	9.00	Week	2.00	Yes....	40
57	1885	23	8	10.00	Week	2.25	Yes....	30
58	1900	10	8	9.00	Week	2.00	Yes....	14
59	1885	34	10	10.00	Week	2.00	Yes....	34
60	1885	120	8	7.00	Week	2.50	Yes....	250
61	1881	125	8	10.00	Week	2.75	Yes....	125
62	1886	17	8	9.00	Week	2.25	Yes....	90
63	1886	12	8	9.00	Week	2.50	Yes....	12
64	1886	50	8	10.00	Week	2.50	Yes....	40
65	1882	27	8	10.00	Week	2.25	Yes....	40
66	1886	13	8	9.00	Week	3.00	Yes....	13
67	1887	40	8	10.00	Week	2.50	Yes....	60
68	1896	22	8	6.00	Week	3.00	Yes....	250
69	1881	96	8	12.00	Week	4.00	Yes....	96

Minimum rate in this case means, how much the slowest workman can make on the lowest.

70	1899	25	11	\$ 2.00	Week	\$ 2.50	No.....	50
71	1902	40	11	5.00	Week	2.50	No.....	125
72	1899	40	11	4.00	Week	2.50	No.....	500
73	1900	24	11	3.00	Week	2.50	No.....	60
74	1900	(a)	(a)	(a)	(a)	(a)	Yes....	350
75	1896	62	10	3.00	Week	4.00	Yes....	300
76	1900	45	10½	4.00	Week	3.00	Yes....	600
77	1900	27	10½	8.00	Week	2.50	Yes....	2,000
78	1900	100	11	5.00	Week	4.00	No.....	(a)
79	(a)						Yes....	(a)
80	1901	53	12	(a)	(a)	(a)	No.....	100

TABLE No. 1—

Running number.	NAME OF ORGANIZATION.	Locality.
81	Clerks' International Protective Association, Retail.....	No. 396, Lucas.....
82	Clerks' International Protective Association, Retail.....	No. —, Missouri Valley.....
83	Clerks' International Protective Association, Retail.....	No. 93, Muscatine.....
84	Clerks' International Protective Association, Retail.....	No. 277, Oskaloosa.....
85	Clerks' International Protective Association, Retail.....	No. 87, Ottumwa.....
86	Clerks' International Protective Association, Retail.....	No. 46, Sioux City.....

The retail clerks have never attempted to set a minimum rate of wages. Figures given are

87	Coopers' International Union of North America.....	No. 57, Cedar Rapids.....
88	Coopers' International Union of North America.....	No. 82, Des Moines.....
89	Coopers' International Union of North America.....	No. 29, Dubuque.....
90	Coopers' International Union of North America.....	No. 72, Dubuque.....
91	Coopers' International Union of North America.....	No. —, Keokuk.....
92	Coopers' International Union of North America.....	No. 43, Sioux City.....

(a) Tight barrel coopers.

(b) Slack barrel coopers.

93	Conductors, Order of Railway.....	No. 34, Boone.....
94	Conductors, Order of Railway.....	No. 31, Burlington.....
95	Conductors, Order of Railway.....	No. 58, Cedar Rapids.....
96	Conductors, Order of Railway.....	No. 67, Cedar Rapids.....
97	Conductors, Order of Railway.....	No. 33, Clinton.....
98	Conductors, Order of Railway.....	No. 288, Council Bluffs.....
99	Conductors, Order of Railway.....	No. 21, Creston.....
100	Conductors, Order of Railway.....	No. 38, Des Moines.....
101	Conductors, Order of Railway.....	No. 347, Dubuque.....
102	Conductors, Order of Railway.....	No. 104, Eagle Grove.....
103	Conductors, Order of Railway.....	No. 353, Estherville.....
104	Conductors, Order of Railway.....	No. 93, Fort Dodge.....
105	Conductors, Order of Railway.....	No. 294, Lake City.....
106	Conductors, Order of Railway.....	No. 268, Marion.....
107	Conductors, Order of Railway.....	No. 4, Marshalltown.....
108	Conductors, Order of Railway.....	No. 22, Mason City.....
109	Conductors, Order of Railway.....	No. 216, Ottumwa.....
110	Conductors, Order of Railway.....	No. 84, Perry.....
111	Conductors, Order of Railway.....	No. 232, Sioux City.....
112	Conductors, Order of Railway.....	No. 361, Valley Junction.....

113	Drivers' International Union, Team.....	No. —, Boone.....
114	Drivers' International Union, Team.....	No. —, Burlington.....
115	Drivers' International Union, Team.....	No. 90, Des Moines.....
116	Drivers' International Union, Team.....	No. 249, Mystic.....
117	Drivers' International Union, Team.....	No. —, Ottumwa.....

118	Electrical Workers of America, National Brotherhood of.....	No. 55, Des Moines.....
119	Electrical Workers of America, National Brotherhood of.....	No. 173, Ottumwa.....
120	Electrical Workers of America, National Brotherhood of.....	No. 47, Sioux City.....

121	Engineers, National Brotherhood of Coal Hoisting.....	No. 43, Albia.....
122	Engineers, National Brotherhood of Coal Hoisting.....	No. —, Boone.....
123	Engineers, National Brotherhood of Coal Hoisting.....	No. —, Center City.....
124	Engineers, National Brotherhood of Coal Hoisting.....	No. 45, Des Moines.....
125	Engineers, National Brotherhood of Coal Hoisting.....	No. —, Lehigh.....
126	Engineers, National Brotherhood of Coal Hoisting.....	No. 42, Lost Creek.....
127	Engineers, National Brotherhood of Coal Hoisting.....	No. 39, Oskaloosa.....
128	Engineers, National Brotherhood of Coal Hoisting.....	No. 41, What Cheer.....

CONTINUED.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (Per)	Daily wages of the most skilled.		
81	(a)	—	—	—	—	—	—	(a)
82	(a)	—	—	—	—	—	—	(a)
83	1893	55	10	\$ 2.00	Week.	\$ 2.50	No	300
84	(a)	—	—	—	—	—	—	(a)
85	1886	98	10	4.00	Week.	3.66	No	98
86	1887	93	11	6.00	Week.	4.25	No	1,200

the amounts paid in localities to new help. Hours on Saturdays, 15 and 16.

(a) Not reported.

87	1899	34	10	\$12.00	Week.	(c) \$3.00	Yes	40
88	1900	14	10	.08	Barrel	(c) 2.50	Yes	18
89	1898	20	10	2.50	Day	(c) 3.00	Yes	20
90	1900	18	10	9.00	Week.	(c) 2.50	Yes	18
91	1900	30	10	12.00	Week.	3.00	Yes	30
92	1899	24	10	.30	Hour	(c) 3.00	Yes	24

(c) Piece work system prevails largely in coopers' craft.

93	1874	45	(a)	\$80.00	Month	(b)	No	(c)
94	1874	50	(a)	80.00	Month	(b)	No	100
95	(c)	70	(a)	.03	Mile	(b)	(c)	(c)
96	(c)	40	(a)	.03	Mile	(b)	(c)	(c)
97	1882	91	10	.03	Mile	\$ 4.00	No	185
98	(c)	20	(a)	.03	Mile	(b)	No	(c)
99	1878	47	(a)	90.00	Month	(b)	No	100
100	(c)	70	(a)	.03	Mile	(b)	(c)	(c)
101	1893	35	10	3.00	Day	4.15	Yes	60
102	(c)	75	(a)	.03	Mile	(b)	(c)	(c)
103	(c)	25	(a)	.03	Mile	(b)	(c)	(c)
104	(c)	25	(a)	.03	Mile	(b)	(c)	(c)
105	1900	25	(a)	.03	Mile	(b)	No	34
106	(c)	40	(a)	.03	Mile	(b)	(c)	(c)
107	(c)	41	(a)	.03	Mile	(b)	(c)	(c)
108	1881	58	10	.03	Mile	(b)	No	75
109	(c)	50	(a)	.03	Mile	(b)	(c)	(c)
110	(c)	35	10	.03	Mile	(b)	(c)	50
111	(c)	70	(a)	.03	Mile	(b)	(c)	(c)
112	(c)	35	(a)	.03	Mile	(b)	(c)	(c)

(a) Hours are irregular.

(b) Wages are uniform, at three cents per mile. Length of service usually governs the disposition of regular runs.

(c) Not reported.

113	(a)	—	—	—	—	—	—	(a)
114	1901	162	10	\$ 2.00	Day	\$ 2.50	No	500
115	1899	512	10	3.00	Day	4.00	Yes	700
116	1901	20	8	3.00	Day	3.50	Yes	20
117	1899	45	10	2.20	Day	4.00	Yes	45

(a) Not reported.

118	1897	55	10	\$ 2.25	Day	\$ 3.00	No	80
119	(a)	—	—	—	—	—	—	—
120	1899	42	10	10.00	Week.	3.00	Yes	50

(a) Not reported.

121	1901	20	(a) 14	\$50.00	Month	\$ 2.25	No	35
122	1901	16	(a) 14½	1.50	Night	6.65	—	25
123	1900	20	(a) 12	50.00	Month	6.70	—	40
124	1900	24	(a) 13	50.00	Month	6.70	—	12
125	1901	10	(a) 14½	1.50	Night	6.65	—	14
126	1900	12	(a) 12	45.00	Month	6.70	—	30
127	1900	30	(a) 13	50.00	Month	6.70	—	15
128	1900	12	(a) 14	50.00	Month	6.65	—	—

(a) Night shifts, seven days per week.

(b) Wages paid per month to highest skill, every day in month included.

TABLE No. 1—

Running number.	NAME OF ORGANIZATION.	Locality.
129	Engineers, Brotherhood of Locomotive	No. 526, Belle Plaine
130	Engineers, Brotherhood of Locomotive	No. 6, Boone
131	Engineers, Brotherhood of Locomotive	No. 151, Burlington
132	Engineers, Brotherhood of Locomotive	No. 159, Cedar Rapids
133	Engineers, Brotherhood of Locomotive	No. 125, Clinton
134	Engineers, Brotherhood of Locomotive	No. 112, Creston
135	Engineers, Brotherhood of Locomotive	No. 113, Des Moines
136	Engineers, Brotherhood of Locomotive	No. 119, Dubuque
137	Engineers, Brotherhood of Locomotive	No. 211, Eagle Grove
138	Engineers, Brotherhood of Locomotive	No. 181, Eldon
139	Engineers, Brotherhood of Locomotive	No. 226, Fort Dodge
140	Engineers, Brotherhood of Locomotive	No. 391, Fort Madison
141	Engineers, Brotherhood of Locomotive	No. 555, Lake City
142	Engineers, Brotherhood of Locomotive	No. 538, Marion
143	Engineers, Brotherhood of Locomotive	No. 146, Marshalltown
144	Engineers, Brotherhood of Locomotive	No. 117, Mason City
145	Engineers, Brotherhood of Locomotive	No. 203, Perry
146	Engineers, Brotherhood of Locomotive	No. 131, Sanborn
147	Engineers, Brotherhood of Locomotive	No. 82, Sioux City
148	Engineers, Brotherhood of Locomotive	No. 490, Sioux City
149	Engineers, Brotherhood of Locomotive	No. 184, Stuart
150	Engineers, Brotherhood of Locomotive	No. 525, Valley Junction
151	Engineers, Brotherhood of Locomotive	No. 56, Walsh
152	Engineers, Brotherhood of Locomotive	No. 114, Waterloo

153	Federal unions (mixed labor)*	No. 7145, Boone
154	Federal unions (mixed labor)	No. —, Burlington
155	Federal unions (mixed labor)	No. 8215, Clinton
156	Federal unions (mixed labor)	No. 8494, Council Bluffs
157	Federal unions (mixed labor) (d)	No. —, Davenport
158	Federal unions (mixed labor)	No. 7217, Des Moines
159	Federal unions (mixed labor) (b)	No. 7478, Des Moines
160	Federal unions (mixed labor)	No. 8802, Des Moines
161	Federal unions (mixed labor) (c)	No. 7369, Dubuque
162	Federal unions (mixed labor) (e)	No. 7397, Keokuk
163	Federal unions (mixed labor)	No. 6303, Muscatine
164	Federal unions (mixed labor) (d)	No. 6861, Muscatine
165	Federal unions (mixed labor)	No. 8004, Oskaloosa
166	Federal unions (mixed labor)	No. 8227, Ottumwa
167	Federal unions (mixed labor)	No. 7397, Sioux City
168	Federal unions (mixed labor)	No. 7310, Walsh
169	Federal unions (mixed labor)	No. 8572, Winterset

\* Federal labor unions are composed of skilled and unskilled wage-earners of various crafts. When 15 members of one craft are enrolled it is obligatory for them to withdraw and form a separate union of that craft; no craftsman is eligible for membership in a federal union who is not a member of the union of his craft, providing such a union exists in the locality where he resides.

(a) Not reported.

(b) Composed entirely of building laborers.

(c) Composed entirely of casket trimmers. (d) Composed entirely of button workers

(e) Composed entirely of hod carriers.

170	Firemen, Brotherhood of Locomotive	No. 311, Belle Plaine
171	Firemen, Brotherhood of Locomotive	No. 25, Boone
172	Firemen, Brotherhood of Locomotive	No. 161, Burlington
173	Firemen, Brotherhood of Locomotive	No. 27, Cedar Rapids
174	Firemen, Brotherhood of Locomotive	No. 531, Centerville
175	Firemen, Brotherhood of Locomotive	No. 79, Cherokee
176	Firemen, Brotherhood of Locomotive	No. 34, Clinton
177	Firemen, Brotherhood of Locomotive	No. 102, Des Moines
178	Firemen, Brotherhood of Locomotive	No. 106, Dubuque

CONTINUED.

RUNNING NUMBER.	Year organized.	Number of mem- bers.	Maxi- mum working hours per day.	Wages.			Demand the employ- ment of union men only.	Total number in locality working at trade.
				Mini- mum rate.	Unit (Per)	Daily wages of the most skilled.		
129	1900	35	(a)	\$2.75	Day	\$ 3.70	No	50
130	(c)	100	(a)	0.037	Mile	(d) .04	(c)	(c)
131	(c)	9	(a)	.03	Mile	(c)	(c)	(c)
132	(c)	88	(a)	0.037	Mile	(d) .04	(c)	(c)
133	1873	97	(a)	2.75	Day	(d) .04	No	150
134	1869	20	(a)	3.50	Day	(d) .04	No	170
135	1871	91	(a)	3.00	Day	4.50	Yes	135
136	(c)	70	(a)	.03	Mile	(d) .04	(c)	(c)
137	(c)	55	(a)	.03	Mile	(d) .04	(c)	(c)
138	(c)	30	(a)	.03	Mile	(d) .04	(c)	(c)
139	1883	67	12	2.90	Day	(d) .037	No	100
140	(c)	61	(a)	2.75	Day	(d) .037	(c)	(c)
141	1899	46	(a)	.30	Hour	(d) .04	No	60
142	(c)	28	(a)	0.037	Mile	4.50	(c)	(c)
143	1898	54	(a)	2.90	Day	(d) .04	(c)	60
144	1879	50	10	0.037	Mile	(d) .04	No	100
145	(c)	60	(a)	0.037	Mile	(d) .04	(c)	(c)
146	(c)	21	(a)	2.75	Day	(d) .037	(c)	(c)
147	(c)	71	(a)	3.00	Day	(d) .04	No	90
148	(c)	40	(a)	2.90	Day	(d) .04	No	60
149	(c)	26	(a)	0.037	Mile	(d) .037	No	40
150	1895	64	12	3.70	Day	\$ 4.75	Yes	85
151	(c)	33	(a)	2.75	Day	.036	Yes	140
152	1870	54	12	2.90	Day	3.85	No	100

(a) Irregular hours, frequently 20 and often more per day. (c) Not reported.

(d) Four cents per mile for the very heavy engines (100 miles allowed as a minimum day's work).

153	1898	250	10	\$ 1.50	Day	\$ 3.50	Yes	(a)
154	1901	162	10	1.50	Day	2.25	No	(a)
155	1900	83	10	1.15	Day	1.75	No	1500
156	(a)	100	10	1.25	Day	3.00	No	(a)
157	1901	22	10	1.25	Day	1.75	No	125
158	1898	40	10	1.50	Day	5.00	No	(a)
159	1899	100	9	2.00	Day	2.50	Yes	400
160	1900	100	10	1.50	Day	2.00	No	(a)
161	(a)	—	—	—	—	—	—	(a)
162	1901	30	10	1.75	Day	2.00	Yes	30
163	1890	400	10	1.25	Day	2.00	No	(a)
164	1893	200	10	1.35	Day	2.25	No	(a)
165	1899	50	10	1.25	Day	1.75	No	(a)
166	1895	60	10	1.25	Day	2.00	No	(a)
167	1899	82	10	1.25	Day	3.00	No	(a)
168	1898	50	10	1.25	Day	2.00	No	(a)
169	1900	42	10	1.25	Day	1.75	No	(a)

170	1886	68	(a)	\$2.25	Day	\$ 3.50	No	(c)
171	1880	145	(a)	2.25	Day	3.75	No	(c)
172	1875	18	10	1.50	Day	2.50	No	75
173	1879	92	(a)	.022	Mile	(b)	No	(c)
174	1898	30	12	.018	Mile	.02 m.	No	33
175	1898	27	(a)	.022	Mile	(b)	No	(c)
176	1879	105	(a)	.022	Mile	(b)	No	(c)
177	1882	50	(a)	40.00	Month	\$90 Mo.	Yes	50
178	1882	28	(a)	2.25	Day	(b)	No	(c)

TABLE No. 1—

Running number.	NAME OF ORGANIZATION.	Locality.
179	Firemen, Brotherhood of Locomotive .....	No. 322, Dubuque .....
180	Firemen, Brotherhood of Locomotive .....	No. 132, Eagle Grove .....
181	Firemen, Brotherhood of Locomotive .....	No. 137, Eldon .....
182	Firemen, Brotherhood of Locomotive .....	No. 288, Estherville .....
183	Firemen, Brotherhood of Locomotive .....	No. 222, Fort Dodge .....
184	Firemen, Brotherhood of Locomotive .....	No. 391, Fort Madison .....
185	Firemen, Brotherhood of Locomotive .....	No. 112, Lake City .....
186	Firemen, Brotherhood of Locomotive .....	No. 293, Marion .....
187	Firemen, Brotherhood of Locomotive .....	No. 125, Marshalltown .....
188	Firemen, Brotherhood of Locomotive .....	No. 29, Mason City .....
189	Firemen, Brotherhood of Locomotive .....	No. 254, Missouri Valley .....
190	Firemen, Brotherhood of Locomotive .....	No. 547, Osceola .....
191	Firemen, Brotherhood of Locomotive .....	No. 502, Oskaloosa .....
192	Firemen, Brotherhood of Locomotive .....	No. 124, Perry .....
193	Firemen, Brotherhood of Locomotive .....	No. 190, Sanborn .....
194	Firemen, Brotherhood of Locomotive .....	No. 61, Sioux City .....
195	Firemen, Brotherhood of Locomotive .....	No. 249, Valley Junction .....
196	Firemen, Brotherhood of Locomotive .....	No. 30, Waterloo .....
197	Firemen, International Brotherhood of Stationary .....	No. ...., Des Moines .....
198	Firemen, International Brotherhood of Stationary .....	No. ...., Sioux City .....
199	Horseshoers of United States and Canada .....	No. 112, Cedar Rapids .....
200	Horseshoers of United States and Canada .....	No. 48, Des Moines .....
201	Lathers, International Union of Wood and Metal .....	No. 8, Des Moines .....
202	Leather Workers, United Brotherhood of .....	No. 53, Boone .....
203	Leather Workers, United Brotherhood of .....	No. 11, Davenport .....
204	Leather Workers, United Brotherhood of .....	No. 24, Sioux City .....
205	Leather Workers, United Brotherhood of .....	No. 62, Des Moines .....
206	Leather Workers, United Brotherhood of .....	No. 40, Waterloo .....
207	Machinists, International Association of .....	No. 273, Boone .....
208	Machinists, International Association of .....	No. 262, Cedar Rapids .....
209	Machinists, International Association of .....	No. 283, Clinton .....
210	Machinists, International Association of .....	No. 254, Des Moines .....
211	Machinists, International Association of .....	No. 219, Fort Madison .....
212	Machinists, International Association of .....	No. 171, Missouri Valley .....
213	Machinists, International Association of .....	No. 293, Marshalltown .....
214	Machinists, International Association of .....	No. 290, Osceola .....
215	Machinists, International Association of .....	No. 290, Ottumwa .....
216	Machinists, International Association of .....	No. 178, Sioux City .....
217	Machinists, International Association of .....	No. 314, Waterloo .....
218	Meat Cutters and Butchers of North America .....	No. 66, Cedar Rapids .....
219	Meat Cutters and Butchers of North America .....	No. ...., Ottumwa .....
220	Meat Cutters and Butchers of North America .....	No. 51, Sioux City .....

CONTINUED.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (Per)	Daily wages of the most skilled		
179	1884	29	(a)	\$ 0.022	Mile ..	(b)	No .....	(c)
180	1880	65	(a)	0.022	Mile ..	(b)	No .....	80
181	1882	30	(a)	2.00	Day ..	(b)	No .....	(c)
182	1886	36	(a)	2.00	Day ..	2.40	No .....	40
183	1884	64	2	2.00	Day ..	(b)	No .....	(c)
184	1888	57	12	2.10	Day ..	\$103 mo.	No .....	100
185	1808	50	18	0.022	Hour ..	(b)	No .....	100
186	1889	55	(a)	2.25	Day ..	(b)	No .....	(c)
187	1889	44	(a)	2.00	Day ..	90 mo.	No .....	(c)
188	1880	22	(a)	2.00	Hour ..	(b)	No .....	(c)
189	1885	68	(a)	2.00	Day ..	(b)	No .....	(c)
190	1899	25	10	2.25	Day ..	(b)	No .....	75
191	1900	20	(a)	0.022	Mile ..	(b)	No .....	(c)
192	1882	77	(a)	2.00	Day ..	(b)	No .....	(c)
193	1881	29	(a)	2.00	Day ..	75 mo.	No .....	(c)
194	1881	51	(a)	2.25	Day ..	110 mo.	No .....	(c)
195	1898	58	10	2.25	Day ..	85 mo.	No .....	70
196	1879	71	(a)	2.25	Day ..	90 mo.	No .....	100
(a) Not reported.								
(b) Irregular hours, frequently 20 and sometimes more per day.								
(c) Wage schedules are uniform: 2 cents and 2 mills per day for smaller size engines and 2½ cents per mile for the larger engines. Length of service generally considered for best runs: 100 miles constitute a day's work. (c) Not reported.								
197	1901	24	(a) (c) 12	\$ 1.80	Day ..	\$ 2.25	No .....	200
198	1899	23	(a) 12	6 00	Week ..	(b) 8 00	No .....	150
(a) Twelve hours per day, 7 days per week. (b) Wages paid per month of 30 and 31 days 12 and 11 cents per day to stationary firemen in some large plants. (c) Eight hours per day for stationary firemen employed at coal mines.								
199	1899	20	10	\$ 2.25	Day ..	\$ 2.50	Yes .....	23
200	1899	12	10	2.50	Day ..	3 00	Yes .....	30
201	1899	31	8	\$ 2.50	Day ..	\$ 3 00	Yes ..	31
202	1900	20	10	\$ 1.75	Day ..	\$ 2.35	No .....	20
203	1898	150	10	1.50	Day ..	2.50	No .....	250
204	1899	20	10	1.75	Day ..	2.25	No .....	24
205	1900	44	10	1.50	Day ..	2.50	No .....	80
206	1899	18	10	2.00	Day ..	3 00	No .....	23
207	1899	18	10	\$ 2.00	Day ..	\$ 2.75	No .....	24
208	1898	75	10	2.00	Day ..	2.75	No .....	90
209	1899	50	10	2.00	Day ..	3.75	No .....	60
210	1892	65	(a)	2.25	Day ..	3.00	No .....	100
211	1909	45	10	2.25	Day ..	3.10	No .....	75
212	1899	40	9	2.50	Day ..	2.90	No .....	60
213	1900	40	10	2.25	Day ..	2.75	No .....	45
214	1899	45	10	2.25	Hour ..	2.90	No .....	60
215	1899	40	10	2.25	Day ..	2.50	No .....	60
216	1891	10	10	2.50	Day ..	3.00	No .....	25
217	1897	35	10	2.50	Day ..	2.90	No .....	45
(a) Secured a 9-hour day June 1, 1901, in job and contract shops without strike.								
218	(a)	600	11½	\$ 6.00	Week ..	\$ 3.25	No .....	600
219	1901	120	10	1.50	Day ..	4 00	No .....	400

TABLE No. 1—

Running number.	NAME OF ORGANIZATION	Locality.
221	Mine Workers of America, United.....	No. 793, Albia.....
222	Mine Workers of America, United.....	No. 242, Avery.....
223	Mine Workers of America, United.....	No. 178, Beacon.....
224	Mine Workers of America, United.....	No. 845, Berwick.....
225	Mine Workers of America, United.....	No. 869, Boonsboro.....
226	Mine Workers of America, United.....	No. 201, Brazil.....
227	Mine Workers of America, United.....	No. 69, Bussey.....
228	Mine Workers of America, United.....	No. 608, Carbondale.....
229	Mine Workers of America, United.....	No. 949, Carbondale.....
230	Mine Workers of America, United.....	No. 553, Centerville.....
231	Mine Workers of America, United.....	No. 239, Clarkdale.....
232	Mine Workers of America, United.....	No. 1129, Cleveland.....
233	Mine Workers of America, United.....	No. 1318, Coalfield.....
234	Mine Workers of America, United.....	No. 392, Coalville.....
235	Mine Workers of America, United.....	No. 56, Collax.....
236	Mine Workers of America, United.....	No. 775, Cincinnati.....
237	Mine Workers of America, United.....	No. 595, Darbyville.....
238	Mine Workers of America, United.....	No. 55, Des Moines.....
239	Mine Workers of America, United.....	No. 384, Des Moines.....
240	Mine Workers of America, United.....	No. 1047, Des Moines.....
241	Mine Workers of America, United.....	No. 1140, Des Moines.....
242	Mine Workers of America, United.....	No. 1197, Des Moines.....
243	Mine Workers of America, United.....	No. 1119, Diamond.....
244	Mine Workers of America, United.....	No. 831, Evans.....
245	Mine Workers of America, United.....	No. 812, Exline.....
246	Mine Workers of America, United.....	No. 534, Flagler.....
247	Mine Workers of America, United.....	No. 708, Forbush.....
248	Mine Workers of America, United.....	No. 172, Foster.....
249	Mine Workers of America, United.....	No. 1039, Frazer.....
250	Mine Workers of America, United.....	No. 1191, Frederic.....
251	Mine Workers of America, United.....	No. 60, Given.....
252	Mine Workers of America, United.....	No. 536, Hamilton.....
253	Mine Workers of America, United.....	No. 159, Harkes.....
254	Mine Workers of America, United.....	No. 1121, Hocking.....
255	Mine Workers of America, United.....	No. 692, Hickory.....
256	Mine Workers of America, United.....	No. 916, Hiteman.....
257	Mine Workers of America, United.....	No. 387, Jerome.....
258	Mine Workers of America, United.....	No. 154, Keb.....
259	Mine Workers of America, United.....	No. 903, Laddsedale.....
260	Mine Workers of America, United.....	No. 855, Lehigh.....
261	Mine Workers of America, United.....	No. 1239, Lost Creek.....
262	Mine Workers of America, United.....	No. 328, Lost Creek.....
263	Mine Workers of America, United.....	No. 799, Lucas.....
264	Mine Workers of America, United.....	No. 851, Marquisville.....
265	Mine Workers of America, United.....	No. 1308, Marquisville.....
266	Mine Workers of America, United.....	No. 439, Morgan Valley.....
267	Mine Workers of America, United.....	No. 1471, Muchakineck.....
268	Mine Workers of America, United.....	No. 634, Mystic.....
269	Mine Workers of America, United.....	No. 875, Numa.....
270	Mine Workers of America, United.....	No. 97, Oskaloosa.....
271	Mine Workers of America, United.....	No. 1265, Otley.....
272	Mine Workers of America, United.....	No. 152, Ottumwa.....
273	Mine Workers of America, United.....	No. 799, Pekay.....
274	Mine Workers of America, United.....	No. 372, Rathbun.....
275	Mine Workers of America, United.....	No. 206, Seymour.....
276	Mine Workers of America, United.....	No. 1101, Summit.....
277	Mine Workers of America, United.....	No. 841, What Cheer.....
278	Mine Workers of America, United.....	No. 885, What Cheer.....
279	Mine Workers of America, United.....	No. 517, Willard.....

\$1.60 per day of 8 hours is the minimum rate of pay for day labor on the outside of mines; Iowa districts; \$2.04 in the Lehigh district and \$2.00 in the Centerville district. Miners dig coal at contract prices, arranged annually, at mutual conferences held by the industry is controlled largely by the seasons, employment is irregular, the most rel-

CONTINUED.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (Per)	Daily wages of the most skilled.		
221	1898	40	8	\$ 1.60	Day...	\$ 2.25	Yes.....	40
222	1897	220	8	1.60	Day...	3.00	Yes.....	220
223	1897	330	8	2.15	Day...	4.00	Yes.....	350
224	1899	100	8	1.60	Day...	2.00	Yes.....	100
225	1899	475	8	1.70	Day...	3.00	Yes.....	475
226	1898	165	8	1.60	Day...	2.50	Yes.....	165
227	1900	56	8	2.15	Day...	3.00	Yes.....	56
228	1899	126	8	2.15	Day...	2.75	Yes.....	126
229	1899	337	8	1.60	Day...	2.50	Yes.....	337
230	1898	580	8	2.00	Day...	2.50	Yes.....	580
231	1898	50	8	1.60	Day...	2.25	Yes.....	50
232	1899	250	8	1.60	Day...	2.50	Yes.....	300
233	1899	16	8	1.60	Day...	2.25	Yes.....	16
234	1899	112	8	2.15	Day...	2.25	Yes.....	115
235	1898	237	8	2.15	Day...	2.50	Yes.....	237
236	1899	279	8	1.60	Day...	2.25	Yes.....	270
237	1899	11	8	2.15	Day...	2.25	Yes.....	11
238	1887	186	8	2.00	Day...	3.25	Yes.....	186
239	1899	42	8	2.15	Day...	3.00	Yes.....	42
240	1899	110	8	2.15	Day...	2.75	Yes.....	110
241	1899	35	8	1.60	Day...	3.00	Yes.....	35
242	1899	80	8	2.15	Day...	2.75	Yes.....	80
243	1899	34	8	1.60	Day...	2.50	Yes.....	34
244	1898	259	8	2.15	Day...	2.25	Yes.....	259
245	1898	34	8	1.60	Day...	2.25	Yes.....	34
246	1899	40	8	2.15	Day...	2.50	Yes.....	40
247	1898	62	8	1.60	Day...	2.25	Yes.....	62
248	1898	60	8	1.00	Day...	2.35	Yes.....	60
249	1900	190	8	1.60	Day...	2.50	Yes.....	190
250	1900	12	8	1.60	Day...	2.25	Yes.....	12
251	1898	112	8	1.60	Day...	2.00	Yes.....	112
252	1899	90	8	2.15	Day...	2.50	Yes.....	100
253	1898	90	8	1.60	Day...	2.00	Yes.....	90
254	1899	250	8	1.60	Day...	2.15	Yes.....	250
255	1898	77	8	1.60	Day...	2.25	Yes.....	77
256	1898	466	8	2.15	Day...	2.50	Yes.....	466
257	1898	42	8	1.60	Day...	2.25	Yes.....	42
258	1898	148	8	2.15	Day...	2.50	Yes.....	148
259	1899	85	8	1.60	Day...	2.00	Yes.....	85
260	1899	163	8	1.60	Day...	2.25	Yes.....	163
261	1899	88	8	2.15	Day...	3.00	Yes.....	88
262	1899	120	8	2.15	Day...	2.50	Yes.....	120
263	1899	125	8	1.50	Day...	2.15	Yes.....	125
264	1898	195	8	1.60	Day...	2.25	Yes.....	195
265	1899	36	8	1.60	Day...	2.25	Yes.....	36
266	1898	75	8	2.15	Day...	2.50	Yes.....	75
267	1900	540	8	2.15	Day...	5.00	Yes.....	520
268	1898	350	8	1.77	Day...	2.25	Yes.....	350
269	1899	220	8	2.15	Day...	2.50	Yes.....	220
270	1899	60	8	2.15	Day...	2.30	Yes.....	60
271	1899	27	8	1.60	Day...	2.15	Yes.....	20
272	1898	160	8	2.15	Day...	2.50	Yes.....	167
273	1898	224	8	2.15	Day...	2.50	Yes.....	220
274	1899	168	8	1.60	Day...	2.00	Yes.....	164
275	1899	230	8	2.00	Day...	2.25	Yes.....	238
276	1899	10	8	1.60	Day...	2.15	Yes.....	10
277	1897	300	8	1.60	Day...	2.50	Yes.....	300
278	1898	100	8	2.15	Day...	3.00	Yes.....	100
279	1898	50	8	2.15	Day...	2.50	Yes.....	50

\$2.15 is the minimum rate for day labor inside the mines in the Des Moines and Oskaloosa districts; \$2.04 in the Lehigh district and \$2.00 in the Centerville district. Miners dig coal at contract prices, arranged annually, at mutual conferences held by the industry is controlled largely by the seasons, employment is irregular, the most rel-

miners and operators, and this arrangement has been found very satisfactory. able average that can be obtained for annual earnings is \$450.

TABLE No. 1—

Running number.	NAME OF ORGANIZATION.	Locality.
280	Molders Union of North America, Iron	No. 103, Cedar Rapids
281	Molders Union of North America, Iron	No. 118, Davenport
282	Molders Union of North America, Iron	No. 116, Des Moines
283	Molders Union of North America, Iron	No. 263, Dubuque
284	Molders Union of North America, Iron	No. 79, Keokuk
285	Molders Union of North America, Iron	No. 203, Ottumwa
286	Musicians, American Federation of	No. 79, Clinton
287	Musicians, American Federation of	No. 67, Davenport
288	Musicians, American Federation of	No. 75, Des Moines
289	Musicians, American Federation of	No. 48, Muscatine
290	Musicians, American Federation of	No. 64, Ottumwa
291	Painters, Decorators and Paper Hangers, Brotherhood of	No. 209, Burlington
292	Painters, Decorators and Paper Hangers, Brotherhood of	No. 183, Clinton
293	Painters, Decorators and Paper Hangers, Brotherhood of	No. 107, Council Bluffs
294	Painters, Decorators and Paper Hangers, Brotherhood of	No. 199, Davenport
295	Painters, Decorators and Paper Hangers, Brotherhood of	No. 240, Des Moines
296	Painters, Decorators and Paper Hangers, Brotherhood of	No. 86, Keokuk
297	Painters, Decorators and Paper Hangers, Brotherhood of	No. 168, Oskaloosa
298	Painters, Decorators and Paper Hangers, Brotherhood of	No. 136, Ottumwa
299	Painters, Decorators and Paper Hangers, Brotherhood of	No. 214, Sioux City
300	Plasterers, International Association of Operatives	No. 160, Cedar Rapids
301	Plasterers, International Association of Operatives	No. 21, Des Moines
302	Plasterers, International Association of Operatives	No. 162, Fort Madison
303	Plumbers and Steam Fitters, United Association of	No. 212, Burlington
304	Plumbers and Steam Fitters, United Association of	No. 125, Cedar Rapids
305	Plumbers and Steam Fitters, United Association of	No. 226, Clinton
306	Plumbers and Steam Fitters, United Association of	No. 33, Des Moines
307	Plumbers and Steam Fitters, United Association of	No. 66, Dubuque
308	Plumbers and Steam Fitters, United Association of	No. 177, Keokuk
309	Plumbers and Steam Fitters, United Association of	No. 183, Ottumwa
310	Plumbers and Steam Fitters, United Association of	No. 18, Sioux City
311	Printing Pressmen Union, International	No. 104, Cedar Rapids
312	Printing Pressmen Union, International	No. 86, Des Moines
313	Printing Pressmen Union, International	No. 101, Dubuque
314	Printing Pressmen Union, International	No. 96, Ottumwa
315	Printing Pressmen Union, International	No. 63, Sioux City
316	Printing Press Feeders Assistants to Pressmen	No. 46, Des Moines
317	Printing Press Feeders Assistants to Pressmen	No. 21, Sioux City
318	Railroad Telegraphers, Order of	No. 71, Oskaloosa
319	Sheet Metal and Tin Workers Union, Amalgamated	No. 90, Council Bluffs
320	Sheet Metal and Tin Workers Union, Amalgamated	No. 91, Davenport
321	Sheet Metal and Tin Workers Union, Amalgamated	No. 51, Des Moines
322	Sheet Metal and Tin Workers Union, Amalgamated	No. 51, Sioux City
323	Stage Employees, National Alliance	No. 40, Des Moines
324	Stage Employees, National Alliance	No. 40, Sioux City

CONTINUED.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (per)	Daily wages of the most skilled.		
280	1891	20	10	\$ 2.50	Day..	\$ 2.75	Yes	20
281	1898	40	10	2.50	Day..	3.00	Yes	50
282	1900	43	10	2.50	Day..	(a) 3.15	Yes	50
283	1899	40	10	2.25	Day..	(a) 3.25	No	50
284	1890	16	8	2.50	Day..	(a) 5.00	Yes	75
285	1900	26	10	2.25	Day..	(a) 3.25	No	75
(a) Piece work.								
286	1900	90	(a)	\$ 0.50	Hour	(b)	Yes	115
287	1897	170	(a)	0.40	Hour	br. 0.60	Yes	225
288	1898	75	(a)	0.50	Hour	(b)	Yes	(a)
289	(c)	48	(a)	2.50	Day..	4.00	Yes	48
290	1897	48	(a)	2.50	Day..	4.00	Yes	48
(a) Irregular employment. (b) No limit. (c) Not reported.								
291	1902	26	10	\$ 1.50	Day..	\$ 2.25	Yes	50
292	1900	47	10	2.00	Day..	2.50	Yes	77
293	1899	25	8	3.00	Hour	(a) 3.00	Yes	50
294	1900	88	9	13.25	Week	(a) 3.00	No	195
295	1897	133	8	2.50	Day..	(a) 5.50	Yes	300
296	1899	20	10	.22½	Hour	(a) 2.50	Yes	30
297	1900	20	10	.22½	Hour	(a) 5.00	Yes	50
298	1900	14	9	.22½	Hour	(a) 3.15	Yes	35
299	1899	42	9	25	Hour	(a) 4.50	Yes	50
(a) Paper hangers, work largely on the piece work system.								
300	1899	13	8	\$ 3.00	Day..	\$ 3.75	Yes	13
301	1891	15	8	3.00	Day..	4.00	Yes	18
302	1899	10	10	3.00	Day..	3.00	Yes	10
303	1900	18	9	\$ 3.00	Day..	\$ 3.00	Yes	18
304	1900	20	9	2.75	Day..	3.00	Yes	20
305	1900	11	10	2.50	Day..	3.00	No	14
306	1891	40	8	3.00	Day..	3.50	Yes	45
307	(a)	11	10	3.00	Day..	3.00	(a)	11
308	1899	7	8	2.50	Day..	3.00	Yes	7
309	1899	22	8	3.50	Day..	3.50	Yes	22
310	1883	22	8	3.50	Day..	3.50	Yes	22
(a) Not reported.								
311	1899	27	9	\$12.00	Week	\$ 2.85	Yes	27
312	1899	40	9	10.00	Week	3.50	Yes	43
313	1899	7	9	14.00	Week	3.25	Yes	19
314	1898	12	9	2.40	Day..	3.50	Yes	12
315	1893	11	9	2.00	Day..	5.00	Yes	11
316	1899	63	9	\$ 6.00	Week	\$ 2.00	Yes	28
317	1899	23	9	8.00	Week	2.00	Yes	28
318	1890	18	12	\$40.00	Month	\$65 mo.	No	30
319	1900	15	9	\$ 2.25	Day..	\$ 3.15	Yes	16
320	1900	25	10	2.50	Day..	3.50	No	30
321	1900	50	8	2.00	Day..	3.50	Yes	55
322	1899	15	9	2.50	Day..	3.50	No	30
323	1899	25	(a)	\$ 1.00	Night	\$40 mo	Yes	21
324	1892	21	(a)	25	Hour	3.25	Yes	21
(a) Hours irregular.								

TABLE No. 1—

Running number.	NAME OF ORGANIZATION.	Locality.
325	Soap Makers.....	No. ... Des Moines.....
326	Stereotypers and Electrotypers Union.....	No. ... Des Moines.....
327	Stereotypers and Electrotypers Union.....	No. 41, Sioux City.....
328	Street Railway Men's Union, Amalgamated.....	No. ... Burlington.....
329	Switchmen's Union of North America.....	No. 6, Council Bluffs.....
330	Switchmen's Union of North America.....	No. 69, Dubuque.....
331	Switchmen's Union of North America.....	No. 126, Marshalltown.....
332	Switchmen's Union of North America.....	No. 84, Oelwein.....

333	Tailors Union of America, Journeymen.....	No. 207, Burlington.....
334	Tailors Union of America, Journeymen.....	No. 230, Clinton.....
335	Tailors Union of America, Journeymen.....	No. 231, Council Bluffs.....
336	Tailors Union of America, Journeymen.....	No. 300, Davenport.....
337	Tailors Union of America, Journeymen.....	No. 15, Des Moines, (d).....
338	Tailors Union of America, Journeymen.....	No. 72, Dubuque.....
339	Tailors Union of America, Journeymen.....	No. 100, Cedar Rapids.....
340	Tailors Union of America, Journeymen.....	No. 177, Keokuk.....
341	Tailors Union of America, Journeymen.....	No. 93, Ottumwa.....
342	Tailors Union of America, Journeymen.....	No. 232, Sioux City.....
343	Tailors Union of America, Journeymen.....	No. 42, Waterloo.....

(d) Tailors in Des Moines estimate their annual earnings at \$650.

344	Trainmen, Brotherhood of Railroad.....	No. 212, Belle Plaine.....
345	Trainmen, Brotherhood of Railroad.....	No. 204, Boone.....
346	Trainmen, Brotherhood of Railroad.....	No. 26, Burlington.....
347	Trainmen, Brotherhood of Railroad.....	No. 56, Cedar Rapids.....
348	Trainmen, Brotherhood of Railroad.....	No. 268, Chariton.....
349	Trainmen, Brotherhood of Railroad.....	No. 522, Cherokee.....
350	Trainmen, Brotherhood of Railroad.....	No. 183, Clinton.....
351	Trainmen, Brotherhood of Railroad.....	No. 520, Council Bluffs.....
352	Trainmen, Brotherhood of Railroad.....	No. 28, Creston.....
353	Trainmen, Brotherhood of Railroad.....	No. 602, Des Moines.....
354	Trainmen, Brotherhood of Railroad.....	No. 60, Dubuque.....
355	Trainmen, Brotherhood of Railroad.....	No. 581, Dubuque.....
356	Trainmen, Brotherhood of Railroad.....	No. 138, Eagle Grove.....
357	Trainmen, Brotherhood of Railroad.....	No. 348, Eldon.....
358	Trainmen, Brotherhood of Railroad.....	No. 352, Estherville.....
359	Trainmen, Brotherhood of Railroad.....	No. 171, Fort Dodge.....
360	Trainmen, Brotherhood of Railroad.....	No. 515, Fort Madison.....
361	Trainmen, Brotherhood of Railroad.....	No. 507, Lake City.....
362	Trainmen, Brotherhood of Railroad.....	No. 487, Lake Park.....
363	Trainmen, Brotherhood of Railroad.....	No. 319, Marion.....
364	Trainmen, Brotherhood of Railroad.....	No. 9, Mason City.....
365	Trainmen, Brotherhood of Railroad.....	No. 104, Moulton.....
366	Trainmen, Brotherhood of Railroad.....	No. 468, Oelwein.....
367	Trainmen, Brotherhood of Railroad.....	No. 152, Oskaloosa.....
368	Trainmen, Brotherhood of Railroad.....	No. 12, Ottumwa.....
369	Trainmen, Brotherhood of Railroad.....	No. 86, Perry.....
370	Trainmen, Brotherhood of Railroad.....	No. 247, Sioux City.....
371	Trainmen, Brotherhood of Railroad.....	No. 546, Valley Junction.....
372	Trainmen, Brotherhood of Railroad.....	No. 341, Waterloo.....

—CONTINUED.

Running number.	Year organized.	Number of members.	Maximum working hours per day.	Wages.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (Per)	Daily wages of the most skilled.		
325	1900	12	9½	\$ 1.50	Day...	\$ 3.00	Yes...	20
326	1899	22	9	1.50	Day...	2.50	Yes...	22
327	1899	11	9	2.00	Day...	3.00	Yes...	11
328	1901	41	15	1.25	Day...	1.75	No...	200
329	(a)							
330	(a)							
331	(a)							
332	(a)							

(a) Unable to secure any report.

333	1893	32	(a)	\$ 1.50	Day...	\$ 3.00	Yes...	(b)
334	1900	26	(c) 10	15.00	Week..	(c)	Yes...	30
335	1893	20	(c) 10	1.50	Day...	2.00	Yes...	20
336	1900	16	(a)	.25	Hour..	\$600 yr.	Yes...	35
337	1900	40	(c) 10	2.00	Day...	3.50	Yes...	200
338	1881	40	(c) 12	.25	Hour..	(c)	Yes...	45
339	1890	30	(a)	1.50	Day...	2.50	Yes...	40
340	1891	28	(a)	2.00	Week..	3.00	Yes...	28
341	1890	28	(a)	1.50	Day...	2.25	Yes...	33
342	1896	50	(a)	2.00	Day...	3.00	Yes...	86
343	1894	18	(c) 10	1.75	Day...	2.00	Yes...	25

(a) Irregular working hours; (b) not known; (c) not reported. Tailors work altogether on the piece work system, and average about \$500 per year.

(e) Hours per day where tailors have secured free work shops.

344	1886	74	(a)	\$ 2.00	Day...	(b)	No...	(c)
345	1887	120	12	2.00	Hour..	\$ 2.00	No...	150
346	1884	34	(a)	(c)		(c)	(c)	(c)
347	1885	120	12	.20	Hour..	2.00	No...	160
348	1896	16	(a)	(c)		(c)	(c)	(c)
349	1893	27	(a)	2.00	Day...	2.00	No...	(c)
350	1886	120	10	2.00	Day...	\$60 mo.	No...	150
351	1893	45	(a)	.20	Hour..	2.00	No...	(c)
352	1884	73	(a)	(c)		(c)	(c)	(c)
353	1900	30	(a)	2.00	Day...	\$60 mo.	No...	(c)
354	1885	38	(a)	.02	Mile..	(b)	No...	(c)
355	1900	44	(a)	2.00	Day...	(b)	No...	(c)
356	1885	109	(a)	.02	Mile..	\$60 mo.	No...	(c)
357	1890	25	(a)	(c)		(c)	(c)	(c)
358	1890	44	(a)	2.00	Day...	(b)	No...	(c)
359	1886	50	12	.20	Hour..	.20 p hr	No...	100
360	1893	45	(a)	1.50	Day...	2.00	No...	(c)
361	1898	44	12	1.50	Day...	2.00	No...	100
362	1892	71	(a)	\$ 2.00	Day...	.5	No...	(c)
363	1889	44	(a)	.02	Mile..	(b)	No...	(c)
364	1884	120	(a)	.02	Mile..	\$60 mo.	No...	125
365	1890	23	10	.02	Mile..	.02 mi.	No...	33
366	1898	21	(a)	2.00	Day...	(b)	No...	(c)
367	1895	52	(c)	(c)		(c)	(c)	(c)
368	1884	62	(a)	.02	Mile..	.5	No...	(c)
369	1885	72	(a)	.02	Mile..	.5	No...	(c)
370	1887	90	(a)	2.00	Day...	\$75 mo.	No...	(c)
371	1894	54	(a)	2.00	Day...	65 mo.	No...	(c)
372	1888	95	10	.02	Mile..	90 mo.	No...	200

(a) Irregular working hours, ranging from 10 to 24 per day.

(b) Length of service rather than skill governs the maximum earnings. Train men who are assigned to long, regular runs, and of necessity are the most regularly employed, make as high as \$90.00 per month. Two cents per mile is the uniform rate.

(c) Not reported.

TABLE NO. 1

Running number.	NAME OF ORGANIZATION.	Locality.
373	Typographical Union, International	No. 376, Albia
374	Typographical Union, International	No. 381, Boone
375	Typographical Union, International	No. 75, Burlington
376	Typographical Union, International	No. 192, Cedar Rapids
377	Typographical Union, International	No. 334, Clinton
378	Typographical Union, International	No. 203, Council Bluffs
379	Typographical Union, International	No. —, Davenport
380	Typographical Union, International	No. 118, Des Moines
381	Typographical Union, International	No. 22, Dubuque
382	Typographical Union, International	No. 68, Keokuk
383	Typographical Union, International	No. 394, Mason City
384	Typographical Union, International	No. 251, Muscatine
385	Typographical Union, International	No. 385, Oskaloosa
386	Typographical Union, International	No. 73, Ottumwa
387	Typographical Union, International	No. 180, Sioux City
388	Typographical Union, International	No. 349, Waterloo

389	Waiters, Cook and Bartenders International Union	No. 223, Des Moines
390	Waiters, Cook and Bartenders International Union	Oskaloosa
391	Waiters, Cook and Bartenders International Union	(d) Ottumwa
392	Waiters, Cook and Bartenders International Union	Sioux City

(d) Bartenders only.

393	Woodworkers, Amalgamated International Union of	No. 92, Clinton
394	Woodworkers, Amalgamated Int. Millmen's Union of	No. 425, Des Moines
395	Woodworkers, Amalgamated International Union of	No. 64, Dubuque
396	Woodworkers, Amalgamated International Union of	No. 71, Muscatine

—CONTINUED.

RUNNING NUMBER.	Year organized.	Number of members.	Maximum working hours per day.	WAGES.			Demand the employment of union men only.	Total number in locality working at trade.
				Minimum rate.	Unit (Per)	Daily wages of the most skilled		
373	1900	15	10	\$ 9.00	Week.	\$ 2.25	Yes	30
374	1900	18	10	(f)		2.00		22
375	1885	30	(a) 8 (b) 9	(c) .24	Hour	(c) 3.00	Yes	45
376	1900	45	9	2.00	Day	3.00	Yes	45
377	1899	30	(a) 8 (b) 10	2.00	Day	(c) 2.50	Yes	40
378	1882	24	9	2.50	Day	(c) 3.50	Yes	25
379	1880	41	9	2.75	Day	2.75	Yes	81
380	1868	220	9	2.66	Day	(c) 3.36	Yes	260
381	1878	40	9	14.00	Week.	3.25	Yes	55
382	1882	18	9	2.00	Day	3.00	Yes	18
383	1900	12	10	(f)		(f)		(f)
384	1893	23	9	2.00	Day	2.75	Yes	23
385	1900	20	10	(a) 6.00	Week.	2.50	No	27
386	1884	24	9	13.50	Week.	3.00	Yes	24
387	1879	75	(a) 8 (b) 9	(c) 10.75	Week.	(c) 3.50	Yes	100
388	1890	20	10	10.00	Week.	(c) 3.00	No	40

(a) Linotype machine compositors maximum working hours, 8 per day. Secured without strikes.

(b) Hand and job work compositors maximum working hours, 9 per day. Secured without strikes.

(c) Wages as quoted refers to union members; non-union compositors work 10 hours per day and receive \$3.00 to \$6.00 per week.

(d) Wages are not paid promptly nor regularly; and are frequently paid in orders for merchandise not the equivalent in cash, constituting a serious grievance.

(e) Wage scale increased by mutual conference between employer and employees and without strikes.

(f) Not reported.

389	1900	70	(a) 11	(c) 9.00	Week.	\$ 2.25	Yes	(b)
390	(e)							(e)
391	1899	38	10	10.00	Week.	3.66	Yes	38
392	1899	60	(a) 12	9.00	Week.	3.00	No	(b)

(a) Number of hours per day, 7 days per week.

(b) Not known.

(c) Wages for male waiters with board; female waiters, \$6.00 per week, with board; previous to organization hours were 12 and 13½ per day, male waiters received \$5.00 and \$6.00 per week and female waiters \$2.00, \$3.00 and \$4.00 per week, with board.

(d) Unable to secure any report.

393	1899	160	10	\$ 1.35	Day	(d) 2.50	No	500
394	1900	60	(a) 10	13.50	Week.	2.75	Yes	80
395	1899	107	(b) 9 (c) 10	1.75	Day	(d) 2.50	No	700
396	1897	16	10	1.00	Day	(d) 2.25	No	300

(a) This union decreased the working hours per day from 10 to 9 by mutual agreement with employers without a strike.

(b) Nine hours a day in winter.

(c) Ten hours a day in summer.

(d) A very small proportion of employees are enabled to make these maximum rates.

# TRADE UNIONS IN IOWA.

TABLE No. 2.

Summary of the different crafts showing total number of unions reported, total membership, average wage rates, and average length of workday.

LOCAL UNIONS OF	Total number of unions.	Number reported.	Total membership.	Average minimum wage per day.	Average maximum wage per day.	Average length of work day.
Bakers and Confectioners International, Journeymen.....	2	2	58	\$ 1.25	\$ 1.87	12
Barbers International Union, Journeymen.....	10	10	350	1.57	2.30	(a) 12.50
Blacksmiths International, Brotherhood of.....	3	3	64	1.88	3.25	0.66
Boiler Makers and Iron Ship Builders, Brotherhood of.....	4	4	82	2.78	2.95	0.75
Book Binders, International Brotherhood of.....	3	3	110	2.00	3.12	9
Bottlers, Beer and Pop Union of.....	1	1	25	1.25	1.50	9
Brewery Workers, International Union of United.....	1	1	89	2.50	2.83	10
Bricklayers, International Union of.....	8	7	347	3.85	4.70	8.75
Brickmakers, National Alliance.....	2	2	330	1.50	2.50	9.50
Broom Makers, International.....	4	4	41	1.50	2.00	9.75
Car Men, Brotherhood of Railroad.....	4	4	255	1.26	2.31	10
Carpenters and Joiners of America, United Brotherhood of.....	10	10	880	2.27	2.86	9.10
Cigar Makers, International Union of America.....	15	15	713	1.54	2.44	8
Clerks International Protective Association, Retail.....	17	12	648	.70	3.08	(b) 12
Coopers International Union of America.....	6	6	140	2.40	2.83	10
Conductors, Order of Railway.....	30	20	917	3.00	4.75	(c).....
Drivers, International Union of Team.....	5	4	739	2.55	3.37	9.50
Electrical Workers of America, National Brotherhood of.....	3	2	97	1.95	3.00	10
Engineers, National Brotherhood of Coal Hoisting.....	8	8	154	1.52	2.25	(d) 13.25
Engineers, Brotherhood of Locomotive.....	24	24	1,268	(g) 2.75	(e).....	(c).....
Federal Labor Unions, (mixed crafts).....	17	16	1,771	1.39	2.40	10
Firemen, Brotherhood of Locomotive.....	27	27	1,434	(h) 2.90	(i).....	(c).....
Firemen, International Brotherhood of Stationery.....	2	2	57	1.40	2.12	(f).....
Horse Shoers of United States and Canada, International Union of.....	2	2	32	2.37	2.75	10
Lathers, International Union of Wood and Metal.....	1	1	31	2.50	3.00	8
Leather Workers on Horse Goods, United Brotherhood of.....	5	5	252	1.70	2.50	10
Machinists, International Association of.....	11	11	400	2.28	2.90	10
Meat Cutters and Butcher Workmen of North America.....	3	2	720	1.25	3.62	10.75
Mine Workers of America, United.....	59	59	9,109	(k) 1.60	2.68	8
Molders Union of North America, Iron.....	6	6	185	2.42	3.40	9.66
Musicians, American Federation of.....	5	4	383	(l).....	.....	(c).....
Painters, Decorators, and Paper Hangers, Brotherhood of.....	9	9	416	2.10	3.50	9.25
Plasterers, International Operative Association of.....	1	3	38	3.20	3.58	8.66
Plumbers, Gas and Steam Fitters, United Association of.....	8	7	129	2.89	3.15	9
Printing Pressmen Union, International.....	5	5	97	2.07	3.62	9
<b>Total</b> .....	<b>396</b>	<b>385</b>	<b>26,068</b>			

Printing Press Feeders and Assistants to Pressmen.....	2	2	91	1.16	2.00	9
Railroad Telegraphers, Order of.....	1	1	18	1.33	2.16	(d) 12
Sheet Metal Workers, International Association of Amalgamated.....	4	4	106	2.31	3.41	9
Stage Employees, National Alliance of Theatrical.....	2	2	45	(m).....	(m).....	(m).....
Soap Makers Union, A. F. of L.....	1	1	12	1.50	3.00	9.50
Stereotypers and Electrotypers Union.....	2	2	33	1.75	2.75	9
Street Railway Employees of America, Amalgamated Association.....	1	1	44	1.25	1.75	15
Switchmen's Union of North America.....	4	(n).....	(n).....	(n).....	(n).....	(n).....
Tailors Union of America, Journeymen.....	11	11	328	1.82	2.66	10
Trainmen, Brotherhood of Railroad.....	39	29	1,762	1.88	(i).....	(c).....
Typographical Union, International.....	16	17	661	2.06	3.80	9
Waiters, Cooks and Bartenders, Hotel and Restaurant Employees.....	4	3	168	1.55	2.97	11
Wood Workers, International Union of America, Amalgamated.....	4	4	339	1.59	2.50	9.75

- a. Average for 5 days in week only. Barbers work 17 hours on Saturdays.  
 b. Average for 5 days in week only. Retail clerks work 16 and 17 hours on Saturdays.  
 c. Hours for employees in railroad transportation service are too irregular to average, this also applies to musicians.  
 d. Coal hoisting engineers are on duty every day in month, this also applies to railroad telegraphers.  
 e. An average maximum rate cannot be obtained for locomotive engineers.  
 g. Lowest minimum rate, an average minimum rate for locomotive engineers cannot be secured.  
 h. Lowest minimum rate, an average minimum rate for locomotive firemen cannot be secured on account of the irregularity of the service.  
 i. An average maximum rate cannot be obtained for locomotive firemen and trainmen.  
 j. Stationery firemen usually work 12 hours per day 7 days per week, with the exception of those employed at coal mines who work 8 hours per day.  
 k. Minimum rate for outside day labor at coal mines, inside day labor at coal mines have a minimum of \$2.15 per day of 8 hours in the sub-districts of Des Moines and Oskaloosa. \$2.04 in sub-district of Fort Dodge and \$2.00 in sub-district of Centerville.  
 l. Musicians average 50 cents an hour and rarely engage by the day.  
 m. Stage employees are employed irregularly and average \$1.00 per night or each performance.  
 n. Impossible to get reports from switchmen's unions.

## TRADES UNIONS IN IOWA.

TABLE No. 3.

Summary of unions in different localities.

LOCALITY.	Number of unions.	Number of members	LOCALITY.	Number of unions.	Number of members
Albia	4	110	Jerome	1	42
Avery	1	220	Keb	1	148
Beacon	1	330	Keokuk	12	307
Belle Plaine	3	175	Knoxville	1	(a)
Berwick	1	100	Laddsdale	1	85
Boone	(a) 15	903	Lake City	4	192
Boonsboro	1	475	Lehigh	3	223
Burlington	18	895	Lost Creek	3	220
Bussey	1	56	Lucas	(a) 2	125
Brazil	1	165	Marion	4	167
Carbondale	2	463	Marquissville	2	231
Cedar Rapids	(a) 23	976	Marshalltown	(a) 5	179
Centerville	4	654	Mason City	5	292
Chariton	(a) 2	16	Missouri Valley	(a) 5	198
Cherokee	2	54	Morgan Valley	1	75
Cincinnati	1	279	Moulton	1	23
Clarkdale	1	50	Mt. Pleasant	1	13
Cleveland	1	250	Muchakinock	1	520
Clinton	15	1,015	Muscatine	(b) 8	701
Coalfield	1	16	Mystic	2	370
Coalville	1	112	Numa	1	220
Colfax	1	237	Oelwein	(a) 5	113
Council Bluffs	(a) 12	443	Oskaloosa	(a) 11	353
Creston	4	150	Ottley	1	27
Darbyville	1	11	Ottumwa	(a) 23	1,510
Davenport	14	921	Pekay	1	224
Des Moines	49	3,859	Perry	4	244
Diamond	1	34	Rathbun	1	168
Dubuque	(b) 19	579	Sanborn	2	31
Eagle Grove	4	394	Seymour	1	230
Elkton	3	85	Sioux City	29	1,372
Estherville	3	195	Stuart	1	26
Evans	1	259	Summit	1	10
Exline	1	34	Valley Junction	4	211
Flagler	1	40	Walsh	2	83
Forbush	1	52	Waterloo	7	311
Fort Dodge	5	249	What Cheer	3	412
Fort Madison	6	230	Willard	1	50
Foster	1	60	Winterset	1	42
Frazer	1	190	Total	396	26,068
Frederick	1	12			
Given	1	112			
Hamilton	1	90			
Harkes	1	90			
Hickory	1	77			
Hiteman	1	466			
Hocking	1	250			

(a) One union not reported.

(b) Two unions not reported.

TABLE No. 4.

Summary showing number of labor organization by Counties in Iowa in 1900.

COUNTIES.	COUNTIES.	COUNTIES.	COUNTIES.
Adair	Davis	Jefferson	Pocahontas
Adams	Decatur	Johnson	Polk
Allamakee	Delaware	Jones	Pottawattamie
Appanoose	Des Moines	Keokuk	Poweshiek
Audubon	Dickinson	Kossuth	Ringold
Benton	Dubuque	Lee	Sac
Black Hawk	Emmet	Linn	Scott
Boone	Fayette	Louis	Shelby
Bremet	Floyd	Lucas	Sioux
Buchanan	Franklin	Lyon	Story
Buena Vista	Fremont	Madison	Tama
Butler	Greene	Mahaska	Taylor
Calhoun	Grundy	Marion	Union
Carroll	Guthrie	Marshall	Van Buren
Cass	Hamilton	Mills	Wapello
Cedar	Hancock	Mitchell	Warren
Cerro Gordo	Hardin	Monona	Washington
Cherokee	Harrison	Monroe	Wayne
Chickasaw	Henry	Montgomery	Webster
Clarke	Howard	Muscatine	Winnebago
Clay	Humboldt	O'Brien	Winnesiek
Clayton	Ida	Osceola	Woodbury
Clinton	Iowa	Page	Worth
Crawford	Jackson	Palo Alto	Wright
Dallas	Jasper	Plymouth	
Total number of unions			
396			

TABLE No. 5.

Summary showing number of members of labor organizations by Counties in Iowa in 1900.

COUNTIES.		COUNTIES.		COUNTIES.		COUNTIES.	
Adair.....		Davis.....	85	Jefferson.....		Pocahontas.....	
Adams.....		Decatur.....		Johnson.....		Polk.....	484
Allamakee.....		Delaware.....		Jones.....		Pottawattamie.....	443
Appanoose.....	2285	Des Moines.....	895	Keokuk.....	412	Poweshiek.....	
Audubon.....		Dickinson.....		Kossuth.....		Ringgold.....	
Benton.....	175	Dubuque.....	579	Lee.....	597	Sac.....	
Black Hawk.....	347	Emmet.....	105	Linn.....	1143	Scott.....	921
Boone.....	1568	Fayette.....	113	Louis.....		Shelby.....	
Bremer.....		Floyd.....		Lucas.....	391	Sioux.....	
Buchanan.....		Franklin.....		Lyon.....		Story.....	10
Buena Vista.....		Fremont.....		Madison.....	42	Tama.....	
Butler.....		Greene.....		Mahaska.....	2018	Taylor.....	
Calhoun.....	102	Grundy.....		Marion.....	258	Union.....	150
Carroll.....		Guthrie.....	26	Marshall.....	179	Van Buren.....	
Cass.....		Hamilton.....		Mills.....		Wapello.....	1793
Cedar.....		Hancock.....		Mitchell.....		Warren.....	
Cerro Gordo.....	292	Hardin.....		Monona.....		Washington.....	
Cherokee.....	54	Harrison.....	198	Monroe.....	1211	Wayne.....	230
Chickasaw.....		Henry.....	13	Montgomery.....		Webster.....	581
Clarke.....		Howard.....		Muscatine.....	701	Winnebago.....	
Clay.....		Humbolt.....		O'Brien.....	31	Winneshiek.....	
Clayton.....		Ida.....		Osceola.....		Woodbury.....	1372
Clinton.....	1015	Iowa.....		Page.....		Worth.....	
Crawford.....		Jackson.....		Palo Alto.....		Wright.....	304
Dallas.....	244	Jasper.....	237	Plymouth.....			
Total number of members.....							26968

## SUGGESTED LEGISLATION AND REMARKS

## BY TRADE UNIONS.

## BARBERS UNION, No. 236—Clinton.

Want laws enacted to license barbers, restrict child-labor and a state eight-hour law.

## BARBERS UNION, No. 43—Des Moines.

We have organized largely for educational purposes, and to arouse the laboring classes to study their interests. We favor voluntary arbitration to settle disputes between employers and employes before strikes are engaged in.

## CARPENTERS UNION, No. 106—Des Moines.

We desire a law whereby mechanics' wages will be a first lien on all construction work, and a state law making eight hours a maximum day's work.

## CIGARMAKERS UNION, No. 239—Clinton.

What we want is compulsory education, restriction of child-labor, free school books, and abolition of convict contract labor.

## RETAIL CLERKS UNION, No. 46—Sioux City.

This union urgently desires a rigid Sunday observance law, and have attempted to enforce the present law with five prosecutions, four under the state laws and one under the city ordinance, the city ordinance was declared unconstitutional by the courts, all the cases however were settled afterward out of court in favor of the union's position for Sunday observance.

## COOPERS UNION, NOS. 29 AND 72—Dubuque.

Members of these unions are opposed to convict contract labor, and are in favor of a compulsory educational law.

## COAL HOISTING ENGINEERS UNION—Of the State.

The chief purposes of our organization are educational, and thereby improve the quality of our members skill, establish uniform hours and schedules of wages, secure employment for those of our craft who are unemployed and restrict the patronage of private commercial employment agencies.

## STATIONARY FIREMENS UNION—Sioux City.

This union pleads for legislative investigation, showing the conditions under which stationary firemen are working, at present over work, long hours, continuous duty, Sundays included, with great care and undue responsibility, coupled with lack of sufficient knowledge in many cases constitute serious risks to life and property.

An act of the legislature regulating conditions under which stationary firemen are employed is an immediate necessity.

## MACHINISTS UNION, No. 254—Des Moines.

Sufficient authority should be granted officials of Bureau of Labor Statistics to correct factory evils, many of which exist and which are a menace to life and health.

## UNITED MINE WORKERS UNION, No. 372—Rathbun.

These enquiries are filled out to the best of our knowledge and ability, it is the first time we ever had to contend with anything of the kind, we think it is a good thing though, please send us a report when issued.

## UNITED MINE WORKERS UNION, No. 325—Lost Creek.

We need a library for our men while they are not at work, please send us some reports and books. *(Such requests have been numerous, and compliance to the fullest extent of the bureau's resources have always been made.—Com.)*

## UNITED MINE WORKERS UNION, 172—Foster.

We recommend the election of mine inspectors by popular vote, and we ask the legislature to enact a law making it obligatory to engage fire bosses in all mines, for the safety of the miners.

## UNITED MINE WORKERS, No. 392—Coalville.

It would be a great benefit and protection to the Gypsum miners to have the Gypsum mines included under the mining laws of the state; the work is more dangerous in gypsum mines than in coal mines, the industry is expanding and the employees need protection.

## UNITED MINE WORKERS, No. 1120—Cleveland.

The law should be changed regulating the age of boys who are employed in mines, it should be under 14 years of age instead of 12, as it now reads. Make it compulsory that boys shall attend school until they are fourteen.

## UNITED MINE WORKERS, No. 869—Boonsboro.

Our agreement for 1900 gives us \$1.00 per ton for mining in this sub-district, but many of our men do not make a dollar a day, we believe the state should own and operate the mines.

## IRON MOULDERS UNION, No. 203—Ottumwa.

Our organization believes that the solution of the labor question is the most important of any before the people. Sanitary conditions in factories and the safety of the employees should be governed by the state.

## PAINTERS AND DECORATORS UNION, No. 83—Keokuk.

A legal apprenticeship making it mandatory to indenture apprentices for protection to the boys and journeymen is very desirable.

## STAGE EMPLOYES UNION, No. 40—Sioux City.

Sand bags which are now used for adjusting theatrical scenery is an extremely dangerous practice and should be prohibited by law.

## CLINTON TYPOGRAPHICAL UNION, No. 330—

This Union favors compulsory education, a state eight-hour law, the abolition of convict contract labor, and the Allied printing trades union label impressed on all state printing.

TAILOR'S UNION, No. 300—Davenport.

We demand from our employers strict Sunday observance, and free work rooms supplied by employers in order to prevent sweat shops.

—  
SIOUX CITY TYPOGRAPHICAL UNION, No. 180.

Our membership has decreased 40 per cent in the last few years, due to the introduction of labor-saving machinery.

—  
WATERLOO TYPOGRAPHICAL UNION, No. 349.

Educate the public to demand the union label on all goods they purchase it would better the condition of the laboring classes without strikes.

—  
WOODWORKERS UNION, No. 92—Clinton.

We want a child labor law with sixteen years as the minimum, compulsory education and a state eight-hour law.

—  
WOODWORKERS UNION, No. 425—Des Moines.

Employers should be required to furnish shops that are clean and light, the machines should be more amply protected for the safety of the workmen, and, heat should be furnished in the winter; in a word, strict factory inspection.

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## CO-OPERATIVE AND PROFIT SHARING.

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## CO-OPERATIVE ESTABLISHMENTS.

The great number of these enterprises will be of absorbing interest to the citizens of the state. That all of those mentioned in the following chapter are successful is of still greater interest. Below is found the names and locations of such institutions:

Minburn Co-operative Association, Minburn, Iowa.  
Panther Co-operative Association, Panther, Iowa.  
Farmers' Co-operative Association, Grinnell, Iowa.  
Ames Co-operative Association, Ames, Iowa.  
Letts Co-operative Association, Letts, Iowa.  
Farmers' Co-operative Association, Cooper, Iowa.  
Linden Co-operative Association, Linden, Iowa.  
Farmers' Co-operative Association, Anthon, Iowa.  
Farmers' Supply Company, Grand Junction, Iowa.  
Farmers' Supply Company, Newell, Iowa.  
Farmers' Supply Company, Marathon, Iowa.  
French Garden Co-operative Association, Cedar Rapids, Iowa.  
Alliance Mercantile Association, Cresco, Iowa.  
Amana Society, Amana, Iowa (see, separate article, Part II.)  
Icarian Colony, Corning, Iowa (disestablished).  
Farmers' Co-operative Society, Rockwell Iowa.

The financial and other statements (names omitted) of several concerns are appended, showing the growth of these institutions from year to year.

### FIRST EXHIBIT.

MR. C. F. WENNERSTRUM:

*Dear Sir,*—Your communication received and noted. We organized in 1891 with a paid up capital of about \$1,800, which has been added to from time to time until there has been received by our association, in all, in cash, \$6,306.54; the rest of our capital stock, \$9,050, is gain, for which stock has been issued.

In the ten years we have paid out over \$7,000 in dividends, and have a surplus larger than our capital stock, beside the net profits of the past year, \$2,693.40. We have sold a little over \$60,000 worth of goods the past year. The secret of our success, I think, lies in the fact that we have a large number of

stockholders, over 250, and that no one can get a controlling interest, \$100 of stock being the most which one person may own.

This is followed by five annual statements in consecutive order.

# STATEMENT SHOWING THE CONDITION OF THE MERCANTILE ASSOCIATION, JANUARY 6, 1896.

## RESOURCES.

Cash in First National Bank.....	\$ 1,041.99
Cash on hand (not in bank).....	5.55
Bills receivable.....	625.67
Amount of invoice.....	7,570.80
Store building and fixtures.....	4,640.84
Unexpired insurance.....	37.50
Due (name omitted).....	5.63

\$13,927.98

## LIABILITIES.

Amount of capital stock.....	\$ 9,110.00
Sinking fund.....	1,862.66
Salaries (unpaid).....	52.00
Undivided profits.....	2,903.32

\$13,927.98

# STATEMENT SHOWING THE CONDITION OF THE MERCANTILE ASSOCIATION, JANUARY 6, 1897.

## RESOURCES.

First National Bank.....	\$ 874.16
Cash on hand.....	52.53
Bills receivable.....	619.86
Unexpired insurance.....	37.50
Amount of invoice.....	9,090.42
Store building and fixtures.....	5,237.45
Due (name omitted).....	1.25
Due (name omitted).....	1.20

\$15,914.37

## LIABILITIES.

Amount of capital stock.....	\$ 9,060.00
Amount of sinking fund.....	4,219.38
Salaries (unpaid).....	45.46
Due (name omitted).....	446.87
Due (name omitted).....	113.40
Due (name omitted).....	5.00
Undivided profits.....	2,024.26

\$15,914.37

# STATEMENT SHOWING THE CONDITION OF THE MERCANTILE ASSOCIATION, JANUARY 4, 1898.

## RESOURCES.

First National Bank.....	\$ 1,450.92
Cash on hand.....	56.09
Bills receivable.....	562.74
Unexpired insurance.....	38.22
Store building and fixtures.....	5,237.45
Amount of invoice.....	9,413.19
Due (name omitted).....	6.25
Due (name omitted).....	10.00

\$16,774.86

## LIABILITIES

Amount of capital stock.....	\$ 9,060.00
Surplus.....	5,337.64
Salaries (unpaid).....	30.45
Due (name omitted).....	61.34
Undivided profits.....	2,285.43

\$16,774.86

# STATEMENT SHOWING THE CONDITION OF THE MERCANTILE ASSOCIATION JANUARY 4, 1899.

## RESOURCES.

First National Bank.....	\$ 1,076.89
Cash on hand.....	17.46
Bills receivable.....	586.75
Unexpired insurance.....	34.50
Store building and fixtures.....	5,237.45
Amount of invoice.....	11,317.05
Due (name omitted).....	2.70
Due (name omitted).....	3.50

\$18,276.30

## LIABILITIES.

Capital stock.....	\$9,060.00
Surplus.....	6,264.07
Salaries (unpaid).....	35.00
Undivided profits.....	2,917.23

\$18,276.30

# STATEMENT SHOWING THE CONDITION OF THE MERCANTILE ASSOCIATION JANUARY 3, 1901.

## RESOURCES.

First National Bank.....	\$ 1,663.85
Cash on hand.....	120.68

Bills receivable.....	1,078.65
Amount of invoice.....	11,806.63
Store building and fixtures.....	5,237.45
Church property.....	1,510.00
Unexpired insurance.....	23.28
Claim (name omitted).....	4.50

\$21,445.04

## LIABILITIES.

Capital stock.....	\$ 9,050.00
Surplus.....	9,675.44
Salaries (unpaid).....	26.19
Undivided profits.....	2,693.41

\$21,445.04

## SECOND EXHIBIT.

## FARMERS SUPPLY COMPANY.

## STATEMENT OF SIX YEARS' BUSINESS.

Years.	Paid Capital.	Profit.	Sales	Members.
1893.....	\$ 915 00	\$ 667.37	\$ 8,000.00	30
1894.....	1,523 00	1,052.69	15,000.00	75
1895.....	2,175 00	1,179.22	15,000.00	147
1896.....	2,772 00	972.77	12,306.00	192
1897.....	3,038 00	1,257.13	14,001.00	210
1898.....	3,373 00	2,017.79	18,724.00	263
Totals.....	\$7,146.97	\$83,031.00		

Average net profit per year, for six years, on our sales, 8.66 per cent.

Average net profits per year, for six years, on average paid-up capital, 60 per cent.

Average cost of handling goods, 8 per cent.

All goods bought and sold for cash.

Every member of the association a storekeeper.

The largest in point of number of members of any like association in Iowa.

## STATEMENT, 1899.

## ASSETS.

Real estate.....	\$2,900.00
Furniture.....	217.55
Cash.....	516.74
Merchandise.....	2,179.69
Coal.....	374.75
Rebates paid.....	194.98
Total.....	\$6,383.71

## LIABILITIES.

Stock paid up.....	\$3,884.68
Taxes, 1899.....	100.00
Net profit, 1899.....	2,435.03
Total.....	\$6,383.71

Total cash sales 1899, \$22,268.65. Sales to members \$16,000.00. Sales to others \$6,268.65. Net per cent. of profit on capital, 60. Gross profit on sales, 16 per cent. Net profit on each dollar sold, 10½ per cent. Cost to handle goods, 6 per cent.\* Members, 300.

## DIVIDEND.

A dividend of 6 per cent. on paid up capital and a rebate of 10 per cent. on each dollar's worth of goods purchased by the members during the year 1899 is hereby declared payable on and after January 15th, 1900, one-half cash and one-half stock.

## THIRD EXHIBIT.

## ASSETS OF CO-OPERATIVE ASSOCIATION, JANUARY 5, 1900.

Real estate.....	\$ 2,900.00
Merchandise.....	5,303.38
Cash on hand.....	1,319.58
	\$9,572.96

## LIABILITIES.

Capital stock.....	\$ 6,600.00
Undivided profits.....	1,807.04
Taxes.....	100.08
Due directors.....	60.00
Sundries.....	162.45
Net gain.....	843.39
	\$9,572.96

On January 20, 1900, we declared a dividend of 12 per cent, and on the 20th inst., we declared a dividend of 15 per cent.

November 26, 1900.

P. S.—The following additional facts may be of interest to you:

The Co-operative Association of — Iowa, was incorporated in 1890; reincorporated in 1891.

Number of charter members, seventy.

Number of members November 1, 1900, sixty-nine.

Our corporation has been a success from the start, and has paid good dividends all the time. We started with a capital of \$1,835.

I give the following extracts from my statement of January, 1900:

Total sales during 1899.....\$16,888.52

\* Exact copy of their statement

Total sales during 1898.....	15,677.61
Increase of sales over 1898.....	1,210.91
Average daily sales.....	53.95
Expenses for the year 1899.....	1,308.35
Average daily expenses.....	4.18
Proportion of expenses to sales.....	7.74%
Net gain during 1899.....	843.39
Proportion of net gains to sales.....	4.99%
Proportion of net gain to capital stock.....	12.77%
Proportion of net gain to capital stock and undivided profits.....	10%
Gross profit on sales.....	12.74%
Number of times sales exceeded capital invested exclusive of real estate.....	8.07
Number of times sales exceeded total capital invested.....	0.02
Total capital invested in the year 1899: Capital stock, \$6,600, undivided profits, \$1,807.04.....	8,407.04
Our sales for 1900 will exceed \$20,000. One month (September) our sales averaged \$72.00 per day.	

## FOURTH EXHIBIT.

## CO-OPERATIVE BUTTON WORKS.

Twelve men associated for mutual benefit commenced work October, 1899. Cleared \$270 in nine months after paying to the members regular wages.

It is to be regretted that this establishment, which was evidently prosperous, declined to give the representative of the Bureau any satisfactory data even after being assured that no names would be given. Part of their communication is here quoted. "We are believers in co-operation, as it will solve the labor problem. No strikes, lockouts, blacklists, etc.

## FIFTH EXHIBIT.

## IT FOOTS UP TO \$700,000—REMARKABLE YEAR OF CO-OPERATIVE ASSOCIATION.

The Co-operative Society of —, has held its twelfth annual meeting, and the last year's record has been without parallel in its history—with a total business of the year of nearly \$700,000, or \$600,000 more than its first year a little more than a decade ago, and an increase of \$100,000 over last year, which was supposed to be its high tide. Last year when the secretary announced the fact that after ten years of history the society had gone from \$275,000 of business, the

previous year's total to \$454,000, it was predicted that the society would rarely, if ever, surpass this record. The figures as reported by the secretary for this year are, in round numbers, \$625,000, but according to the statement of President —, that should be increased nearly \$75,000, from the fact that much grain at — was exchanged for merchandise, and the latter article was not figured into the business, on the double entry plan which in the association counts both the buying and selling of grain and merchandise in the sum totals for the year. So that the business on this double entry plan would this year approach nearly \$700,000. An equally flattering showing was revealed in the report of the liabilities and resources of the association. Last year the net balance in favor of the society was \$7,000, which was heralded with great applause. This year, through the careful oversight of the excellent board and the superb management of —, the manager, the surplus went up to \$11,000, a fact that was very gratifying to the management, and one that was received with enthusiasm by the stockholders.

The following is the record for the past six years:

1895.....	\$219,000
1896.....	251,000
1897.....	224,000
1898.....	275,000
1899.....	545,000
1900.....	700,000

Very eloquent are these exhibits, and it is a cause for regret that more of these concerns did not avail themselves of the privilege of showing the side of co-operation that appeals to the material interest of man.

This Bureau is aware that there are a number of co-operative creameries in operation, but did not get sufficient data to justify their publication.

The Amana Society will be mentioned in a separate article, written by Mrs. Bertha H. Shambaugh, of Iowa City, and the Icarian Colony, though dissolved, will have separate special mention.

Care has been taken that information given should be from first hands and authentic.

### PROFIT SHARING.

The plan of sharing the profits of industrial establishments with their employes as a method of preventing many of the disputes which have prevailed throughout the country between employers and employes having attracted the attention of our citizens in Iowa who have inquired concerning this system of co-operation with the results, we have endeavored to obtain all the information possible by sending the following letter of inquiry to twelve establishments who we were advised had introduced the "profit sharing system," none of which, however, exist in Iowa.

The four appended replies were the only ones of sufficient importance justifying publication. The names of three are withheld for obvious reasons, and one is so well known that its identity in this connection could not be hidden even if it were desired.

DES MOINES, IOWA, November 24, 1900.

*Messrs. \_\_\_\_\_:*

GENTLEMEN: In the forthcoming report of this bureau we desire to make an exhibit of "Profit Sharing" as viewed by those who have placed the system into operation.

It is reported that your establishment has been very successful in this direction and that your employes are highly satisfied.

If you would kindly give us an outline of your method, length of time in operation, and an account of the results achieved so far, the favor would be highly appreciated by the people of Iowa.

Very respectfully,

C. F. WENNERSTRUM,  
*Commissioner.*

C. F. WENNERSTRUM, Esq.,

*Des Moines, Iowa.*

DEAR SIR—Answering yours 24th inst., asking for outline of our profit sharing method and the results so far seen, I have pleasure in saying: We adopted the profit sharing system in the spring of 1886. The term "profit sharing" as technically used means a division of the general net

profits of a business between the capital and the wages of employes. The term has been more exactly defined by the International Congress of Co-operators and Profit Sharers to require that the division shall be by a fixed system for a certain period declared in advance. That is to say, it must not be dependent upon the decision of the employer at the end of the term, as it would then come in the nature of a gift, and would, moreover, be dependent upon the caprice of the employer. On the 1st of March, 1886, having decided to adopt the system, we put in the pay envelopes of all employes, then numbering about 225, the announcement that at the end of the year we should, after allowing the commercial rate of interest on the capital actually employed, apportion the remainder of the net profits as follows:

Ten per cent. for Surplus fund.

Ten per cent. for Provident fund.

Three per cent. for Educational or Literary fund, and the remainder by equal per centage on the capital employed and the wages of all employes who had worked as much as six months at any time during the year. Under this arrangement, there was a dividend of 6 per cent. the first year, 10 per cent. the second, and varying from 10 to 5 per cent. until 1894, since which time no dividends have been paid, as the earnings did not go beyond the interest on capital. The first three years, the dividends were paid in cash, with the privilege of investing them in stock of the company, of which about half of the receivers took advantage. Cash dividends having been paid long enough to make it clear to wage earners that there was something in it, it was made payable in stock, subject to redemption by the company at par. The Provident fund was placed in charge of a committee selected by the men in each of the five departments. The purpose of the fund was to provide for the sick and disabled and the orphans and widows. The Literary fund was intended for a library and perhaps sending some of the children through higher education. In 1892 the basis of the division was changed so as to allow 2 per cent. on wages to each one on capital in excess of the interest rate. The men were requested to elect an auditor to examine the books and report at the distribution meetings. No employe has ever criticised the management or shown any disposition to interfere with it. The number of employes has in the meantime about doubled and while no dividends have been paid for five years, there have been no complaints. The depression in the building trades during these years, easily accounted to them for the absence of surplus earnings. With better times, the dividends will soon be resumed and it is hoped will be such as to equalize with the lost period.

In furtherance of the same principle that induced the company to adopt the profit sharing, it procured a tract of 125 acres of land, 18 miles from the city, in the high lands of Illinois. It there built factories and laid out a residence village in park fashion, made roads and sidewalks, planted trees, built a club-house, a bowling alley, billiard room and houses to be sold to the employes. The village was named Leclair, in honor of the French house painter who inaugurated the profit sharing system in 1842 and founded a house which is still in active business under the control of the one thousand employes. In this village, which adjoins the large county seat of Edwardsville, there are now 175 men and boys employed in the factories,

about 160 residents in the village itself and it has a kindergarten and primary school, a lecture course every winter, a circulating library, good baseball campus, well kept streets, no saloons, no policemen, no boss and a very fine lot of people. The president and the secretary of the profit sharing corporation whose chief business is still in St. Louis are residents of LeClaire. There are fifty members of the bowling clubs, filling every night of the week. The extension of the works accounts in part for the cessation of dividends but it has also come to seem more important to spend money freely on the common purposes than to make individual distributions, not that the system of dividends will be abandoned but the expenditures for the common welfare are really more to the point. The profit sharing spirit has shown more expansion in this country in the direction of betterment of the social condition of workers than in that of actual dividends. At the present time a very large number of employers throughout the country are doing something beyond a mere payment of wages and this is done in exactly the same spirit that brings profit sharing into use. An employer can do nothing better either for his business prosperity or for his own satisfaction than to improve the conditions under which his associate workers do their work and live their lives. Village LeClaire enjoys the unique distinction of being an almost exclusively workingman's settlement and at the same time being a show place for its large and aristocratic neighbor. Our roads are good for driving, wheeling or walking, being kept perfectly smooth and well sprinkled, the abutting yards are all well kept, the lawns being carefully mowed, and having plenty of flowers and shrubs and a good many fruit trees. The houses are for the most part built upon lots one-third of an acre in size, they all have choice running water and electric light. Our most interesting element is the children. Besides the kindergarten, we have a dancing class of 32, several reading clubs and a gardening club of about 40. I never saw quite so bright and handsome a kindergarten class as appeared in the Thanksgiving program a few nights ago.

Very sincerely,

N. O. NELSON.

#### NELSON'S LECLAIRE.

A GOOD MAN AND THE INDUSTRIAL SETTLEMENT HE FOUND—WHERE MEN WHO WORK ARE HELD IN THE HIGHEST ESTEEM, RECEIVE THE VALUE OF THEIR LABOR AND LIVE LIKE HUMAN BEINGS.

Probably the first and best known attempt in this country to establish a closer relation between labor and capital through generous concessions on the part of the latter is that which is symbolized in the village of LeClaire, Ills. It was so named for the French socialist, whose bust in bronze adorns the village schoolhouse. The founder of this settlement is a Norseman, Nelson O. Nelson, and here he has set up some acres of shops for the manufacture of plumbers' supplies and mantels. The company which bears his name has its offices in St. Louis, in a large, commonplace building, and LeClaire is eighteen or twenty miles away.

Mr. Nelson, who is still in the prime of life, yet bears the distinction of being "the father of profit sharing in America." Probably more than any other man he is responsible for the many devices that progressive and liberal employers have adopted to gain the better will of their working forces.

LeClaire is not a commune, though it is an industrial settlement. It is in a green, pleasant, rolling country, where they say the nights are always cool, where they have no mosquitoes, no malaria, no— For the rest read the card of any real estate dealer, whether in Cape Nome or Havana. You leave the cars at a station called Edwardsville. The town of that name lies on the left of the track and has 5,000 people and twenty-two saloons, while LeClaire, on the right of the track, hasn't a saloon. Edwardsville is accounted a right smart little place, with so much culture that neighbors drive in to see it, yet LeClaire easily outdoes it. There is more wealth in one block of Edwardsville than in nearly all LeClaire, yet in the latter village you see not a single rickety shed, not an unpainted house, not a weed-filled yard, not a rutted road, not a board fence plastered with aged circus posters and medicine signs. It is all unpretentious, but charmingly neat. Excepting a couple of miners, who dig coal in a hole across the way, the people of LeClaire are all in the employ of the Nelson company. It is not to be imagined from this that coercion is used to make the brass molders, carpenters, machinists, marble sawers and the others live there. Quite the contrary.

There is not room for half of them, and the others have to live in more ordinary quarters, that they find in Edwardsville. Rents are low. From \$6 to \$9 a month is asked for a neat cottage that is kept in excellent repair and supplied with running water and electric light free of charge. The lawn, before it is trimmed every week by the company, and the streets are sprinkled every day. Furthermore, through the good offices of Mr. Nelson, the dwellers in LeClaire enjoy especially easy terms in the matter of railroad fares. The round trip to St. Louis costs a stranger \$1.50, but any worker in the Nelson shops may go to the city and back for 50 cents. Were it not that the founder of the colony is everywhere esteemed, a concession like this would never have been secured. But one hears nothing but praise for him, no matter how heartily the man who admires him may disagree with his economic theories. The brakemen on the trains ex-

claim, "There's a man for you!" and washerwomen say, "Sure, he's the poor people's friend."

There is no self seeking on the founder's part in this experiment in altruism. He believes thoroughly in his people; believes thoroughly in men. He wants to do good and takes the same satisfaction in it that so many folks take in doing bad. When objection was made to a family that had just come into the village, he said, "If these people are good, we want them, and if they are bad, we'll make them better."

Though his own house is the largest in the place, it is hardly distinguished from the others. It is plain, but comfortable. It has flowers and shade, and of every other dwelling in Leclaire one may say the same. In rose time the air is heavy with the scent of thousands of blossoms. In laying out Leclaire a departure was made from the conventional in that the roads curve like those in parks instead of bolting into the distance by the straight way. The effect of a walk, as fresh vistas open before the stranger, is charming. Partly surrounding the village is a farm, which has been operated as a department of the Nelson company's industries, like the brass foundry and the planing mill, the farmers receiving wages and sharing profits also and the produce being sold in part at especially low prices to the villagers. These acres are in splendid yield, but this season the experiment has been made of renting them to outsiders, the company profiting by the certainty of rental. It is said that the company will resume the management of the farm next season, but its discontinuance, even for a single year, suggests inquiry whether this phase of Leclaire's industries is so thoroughly indorsed by those who profit by it as the founder hopes it is.

There has never been a strike in the Nelson shops. But here is a remarkable thing. Nearly all the workers are members of labor unions and have joined them by advise of their employer.

The wages are the same as are paid in the city for the same class of work, the union scale being adhered to, although the expense of living in Leclaire is considerably less than in town. The hours are ten a day, except on Saturday when work stops at four.

In appearance and character there is no marked difference between the employes of the Nelson company and any other. The usual mixture of American and Europeans is found. This matter of profit sharing affects different people and different classes of workingmen in different ways. It has certainly worked

good here; it has revolutionized Ivorydale for the better; it has brought content into dozens of places.

The attitude of the workers in Leclaire is not that of loyalty, but of equanimity. The holding of their places has no more to do with their political doctrines than has their religious creed. Profit sharing, when it is justified by earnings, occurs in the form of an added percentage on wages. If the dividend is 2 per cent, a \$1,000 man receives \$20 and a \$200 office boy has \$4. Certain expenses are first deducted from the gross earnings, allowance is made for wear and tear of machinery, insurance and the like, and the net profit is divided. Piece workers have their shares no less than the men on wage, and in their case the yearly sum of the earnings is the basis of the percentage of extra profit. Everybody, from high to low, is included unless it might be the man who came in yesterday, and it would hardly be right to the others to give the same share to him as to the men who had been in the shop for a year, yet full dividends have been paid to men who have worked for only two months. Some of the men own stock, and possibly if all could be persuaded to do the same the alacrity and interest would increase.

The spirits of the men are pleasantly exhilarated after these divisions of money. They whistle at their tasks and wear cheerfulness in their faces. Doubtless they work a little better for awhile. And it is a part of Mr. Nelson's plan to keep them content in their homes, as it is to add to the pleasure of humanity at large. He has several times taken trainloads of children from the St. Louis slums and filled their lungs with the air and their eyes with the green of the Illinois fields, and it is said that he is arranging to have some of the children of the city poor cared for in country homes in hot weather. And he has likewise taken the children of his working people to St. Louis that they might see its wonderful smoke and its pet bridge and the steamboats in its river that looks like chocolate, but isn't, and its queer substitutes for street cars and soldiers in strike times.

Then there is an annual picnic, with cake, ice cream, cigars, music, dancing, and a good time for all the people in the shops and offices, and the joy of the occasion is not diminished by reason of the eloquence which is imported.

No charge is made for any lectures or entertainments that are given in Leclaire. Mr. Nelson will not allow it. Either the speakers are so well pleased with the sound of their own voices that they get their pay from the privilege of speaking or they

confer with Mr. Nelson privately after the performance. A debating club is maintained by the members, and the virtues and vices of hard and soft money, sumptuary laws, handmade goods and territorial expansion are duly considered by this body.

Some of the men have accounts in the Edwardsville banks, however, and the Nelson company acts as banker for its people when so requested. A commoner form of thrift than the saving of money is the buying of a house, and in this the workman is always encouraged. Nearly all of the building has been done by the company, and one of its neat cottages, with water and light gratis, can be bought by an employe on almost any terms he wants to make, the deed being transferred to him when he has paid about \$600. He has a plank or concrete walk and maple trees before his door, and so long as he lives there his road will be watered daily, Sunday included, and his lawn and borders trimmed without charge. Occasionally, as the village grows, there is an auction of house lots, and they are sold absolutely without reserve. If the bidders happen to feel poor and the rivalry is not sharp, the land is sold very cheap.

Among the oddities of Leclaire are its free farms. Any worker for the Nelson company may help himself to all the land he wishes and work it for his own profit. The object of this is less to afford a means of wealth than to give wholesome out of door occupation of men who are much indoors, some of them breathing fumes in the brass foundry, and to enable them to have a variety of fresh and healthful vegetables and fruit on their tables. The worker keeps his garden as long as he wants it and the company plows and harrows the ground for him without charge. He is to take no more than he will readily use, however, and such of it as he allows to run to weeds is forfeited to any neighbor of more thrift or enthusiasm.—Charles M. Skinner in Brooklyn Eagle.

OHIO, November 26, 1900.

MR. C. F. WENNERTRUM,

*Commissioner Bureau of Labor Statistics, Des Moines, Iowa.*

DEAR SIR—A profit-sharing plan of our own has been in effect at our factory for some years, and we feel that it has been successful. You will find a very clear account of it and its results in the enclosed. If we can add anything to the article, please let us hear from you.

#### OUR EXPERIMENT IN PROFIT SHARING.

Any change in the methods of conducting the productive and

distributive business in the world to be successful and generally adopted, must first and last have in it that which will tend to lessen the cost of such production or distribution. However desirable profit sharing may appear to us from other points of view, this is the essential principle upon which its success or failure depends. Unless the employer increases the efficiency of his labor under the profit sharing plan to at least the extent of the profits so paid to his labor, he should not, as a business proposition, adopt it. If, however, the reverse is true and he increases the efficiency of his labor to an extent greater than the amount so paid to it, it is as incumbent upon him to adopt the profit sharing plan as it is to put in an improved piece of machinery, remembering also, that it is the first who in adopting improved methods secures the greatest reward. If profit sharing can show that where it is honestly and considerably administered, it is the means of developing in the employe that feeling of self-interest in his labor which will tend to secure the same thoughtful and honest efforts as though he were working for himself, then it has demonstrated its right of being, as the main claim of the employer is that the root of existing troubles lies in the fact that the employe takes no interest in his work and has no consideration for his employer's property or welfare.

Now, how can profit sharing prove its ability to produce this change in the employe's feelings? If it can be shown in a manufacturing establishment continuing under the same management, even down to practically the same foreman of departments, that since profit sharing has been introduced, strikes and labor troubles are unknown, where before they were common; that the waste of material has been reduced one-half; that the number of employes leaving the employ, or being discharged for cause during the year has been reduced to one-third the number so doing prior to the adoption of the system, and that the actual labor cost of manufacture, including in such cost, the amount of money paid to employes as the profit sharing dividend, has been lowered, then we think profit sharing will be justified in claiming that it has supplied that motive to self-interest in the employe's work, which is now admitted to be so sadly lacking.

It was during the year 1886 that the Knights of Labor began to assume such prominence, and employes in manufacturing establishments throughout the country became more or less restless. During that year a firm of soap manufacturers in Cincinnati, had in their various departments no less than fourteen different

strikes, having at different times from eleven to one hundred and fourteen of their employes quit work in a body, and for all sorts of trivial causes. They were continually at the expense of breaking in new people, and the question was one of constant anxiety. After considerable hesitation, it was decided to put into force a plan of profit sharing and to secure, if possible, some relief from these troubles. It was decided to allow as a portion of the expense of manufacturing, a reasonable salary to each active member of the firm, and to divide the remainder of the net profits between the firm and the employes in the proportion that the labor cost of production bore to the total cost of production. In other words, if the sales were \$100,000 and the net profits, after deducting the salaries of the firm, \$10,000, then the total cost of production would be \$90,000. Assuming that the amount paid for wages was \$20,000, then the \$10,000 of profit would be divided, seven-ninths to the firm and two-ninths to the employes.

The proposition when made to the employes was accepted in a half hearted way and without any belief upon their part that it would be of material benefit to them. At the end of the first six months a dividend of 11 per cent upon the wages was declared. During the next six months there was evidence that some of the employes were beginning to take a little interest in the working of the plan, and in order to encourage them and to reprimand those who did not take an interest, the plan was adopted of dividing the employes into four classes, the first class getting double the regular dividend and including those who showed unmistakable signs of appreciation of the fact that it was incumbent upon them to help make the profits. The second class received the regular dividend and included the bulk of the employes. The third class were those who did not evince much interest in the plan and whose dividend was one-half the regular amount. The fourth class were those who for cause were cut out of any dividend at all. They continued working under this plan for two years, by which time they had managed to weed out the majority of those who took no interest in their work, and since then have had only two classes, those who share and those who do not. The total amount of profit sharing dividend is not affected by the number of those sharing. If for any reason they are compelled to decline allowing an employe to participate, his share is divided among the others.

This, briefly is the plan under which the company and their

employes are to day working. In the year 1887, the first year in which the plan was in operation, they had three strikes during the first six months. Since that time they have had absolutely no labor trouble. We believe it would be impossible to foment any such trouble among their employes now. As an illustration of how they feel, we might mention that it has occurred frequently that where some trouble arises the men themselves will come to the foremen and tell them all the details of it and suggest that the same be remedied. The old feelings of discontent and distrust have been replaced by that of mutual interest.

The class of labor employed in the soap factory is of the most ordinary unskilled kind. Over 85 per cent of our employes earn \$1.50 a day or less. This class of labor is the kind that most frequently shifts from place to place and is the class which of necessity you must frequently change. We are at the moment without exact figures relative to the proportion of employes who would continue for a year in the factories prior to 1887, but we think it a conservative estimate to say that one-half of the employes were replaced each year by new men. Last year, out of over 600 employes, we had six who left or were discharged for cause. Three of these were girls who were married, and two of them were men whom we discharged for just cause. The sixth employe left for some reason which we do not know. Too much stress cannot be placed upon the advantage of being able to retain the employes year after year. Even though the labor is unskilled, it takes some time to break in a new man so that he is as efficient as one who is familiar with the work to be done.

It is very difficult to determine exactly what proportion of the labor saving that has been effected in our factories, since the profit sharing plan has been in force, is due directly to the profit sharing plan, and what is due to improved machinery and methods of manufacture. Our labor cost of manufacture, including a 12 per cent profit sharing dividend upon the wages for the year 1894, was 63 per cent of what it was during the year 1886, and this in spite of the fact that the average rate of wages in 1894 was a trifle over 12 per cent higher than in 1886. Figuring conservatively and throwing all questionable items against profit sharing, they estimate that the improved methods of manufacture are responsible for 28 per cent of the 37 per cent shown, leaving as a net result to the credit of profit sharing, a saving equal to 9 per cent plus the 12 per cent increased wages or 21 per cent cheaper labor cost of manufacture under the profit sharing system.

As to the saving in material, this also is a difficult question to determine. Unfortunately, it is not possible to keep accurate accounts of saving under this head. We can instance, however, one thing which shows how the profit sharing plan works. One of the principal sources of waste in the factories is due to the waste of scraps and small pieces of soap by allowing them to fall upon the floor and become trampled under foot. The dirty soap used to accumulate so rapidly that it was necessary to work over the accumulation every two or three weeks. Now it takes three or four months to accumulate a sufficient quantity to be rehandled. The effect of saving by the employes can also be seen in the general air of tidiness and cleanliness about the factories.

There is no question that in this factory, profit sharing has done more than answer the questions propounded above, and the tendency has been, wherever possible, to extend this same profit sharing principle, and to encourage more and more the spirit that it has started among the employes. This has been done by having employes become interested in the stock of the company, trying to induce them to put their savings into the business for which they are working, so that all their interests shall be in one place. As an instance of the willingness of the employes to bind themselves more closely to their work, we would mention that after the last semi-annual profit sharing dividend, the employes subscribed for \$5,250 worth of the common stock of the company.

While the profit sharing plan is today working so smoothly and profitably to the interests of the *capital* invested in the business, yet it must not be assumed that it came to this state without any drawbacks or disheartening circumstances. The employes of the company were of the ordinary type of day laborers, ignorant and suspicious; and it was only by absolute fairness and justice in ruling upon all claims and allowances to be made for them, that the management had succeeded in fully gaining their confidence. We do not think that any person who will adopt the profit sharing plan need expect that it will pay its own way for the first two years; but after that, if the employer will do his share of it and treat the employes with consideration and with an effort to show appreciation for any attempts they may make, even though misguided, to improve the work of their department, we feel assured that the ultimate outcome can only be to the more firm establishment of the system. It is by no means an uncommon occurrence now for the employes of this company to show decided interest in the character of the goods being shipped, taking

especial pride and pains in those in which they assume that the larger profit is made. They will call the attention of the foreman to little questions as to quality of the different brands of soap manufactured, showing plainly a desire upon their part that they shall do their share in seeing that nothing goes out from the factories which would tend to injure the demand for the products of their labor.

These results have been obtained during a period of time when the feeling between employer and employe generally has been strong and bitter. The spirit of bitterness had already developed in the factories described, showing that there was nothing peculiar to their management that would exempt them from the same troubles so many others have had. The results have been obtained not at any cost of profits to the capital invested, but at an actual increase of profits to the capital. All that was done was to allow the employe an opportunity to save money for himself. He did it and more.

We have never been forced to meet the question. What would be done in the event that no profits were earned or that a loss was incurred? We have told our employes that we would not expect them to share in any losses. We feel that even in the event of a year's business showing a loss, it would be an injustice to ask them to bear any proportion of it beyond the loss they already sustained during the year by giving the increased efforts and care for which they received no recompense.

.....MINN, November 28, 1900.

MR. C. F. WENNERSTRUM,  
*Labor Commissioner, State of Iowa.*

DEAR SIR:—Your favor of the 24th, addressed to us, at hand.

There was never any system of co-operation in existence in this concern, but we have had and do now have a system of "profit sharing."

This was inaugurated in 1882.

The plan at that time was for the firm to first receive from the profits each year a certain per cent on capital invested, and if there were any profits above the sum required to pay this, then a certain per cent of that sum was set aside as a dividend for the employes, and the balance went to the firm.

Each employe who had been with the firm two years received a pro rata share of the sum so set aside, based on the annual salary or wages.

The firm was not able to pay a dividend every year, but some of them were very large, running as high as 65 per cent of the annual salary or wages.

In 1889, the firm sold out to the present corporation, and the system con-

tinued, but on a somewhat different basis, and not quite so favorable to the employees. In addition to this, the profits on the goods we manufacture are very much smaller now than in the '80's.

The men have always been satisfied with the arrangement, and if they received a dividend they looked upon it as something not to be counted on beforehand, and when one is passed there has never been any manifestation on their part, as our employees are unusually intelligent, and readily recognize the situation.

We are pleased to report the effect has been to secure for the company first-class employees, who retain their positions for many years, and, by reason of the experience so obtained, very many new methods and economies are suggested and put in operation voluntarily to the benefit of all concerned.

In your reference to this experience of ours we would not care to have it made so pointed that we could be located.

Very truly yours,

.....Ohio, Feb. —, 1901.

MR. C. F. WENNERSTRUM,  
Des Moines, Iowa.

MY DEAR SIR—I herewith send you a brief description of the conditions prevailing in our works which will enable you to fairly understand our system.

We employed last year from eighty to one hundred men. We have not gone into a systematic "profit sharing," but for the past five years have paid a uniform and arbitrary 5 per cent. in addition to the usual wages to all of the employees; this might be called a dividend, or it might be called a present; it really amounts to a raise of wages, and is all paid in a lump at one time.

Our minimum rate for common labor is two dollars for an eight-hour day. We have the eight-hour day throughout all our departments, forty-eight hours per week, no overtime, no piece work, no system of petty contracts so that one man is given an opportunity to make profit from the toil of his fellow workman. No premium system or piece price plan that gives the strong an advantage over the weak, our employees have proven that he who does his best does all he can, and because he does deserves the right to live and work. We have no "time keeper," no time clock to ring in and ring out, every man works on honor, keeps and reports his own time.

Our competitors all work on the twelve-hour per day system, we are so successful on the eight-hour per day system that it will never be necessary to go back to the twelve-hour day.

In 1899 we inaugurated the system of vacations for all employees. For years it has been customary in large concerns to allow office employees an annual vacation of at least one week without deducting their wages for the time lost.

The question was forcibly brought to our attention that if men who work in pleasant offices and who usually work shorter hours than those who work in the shops are entitled to a vacation with pay, why are not those who

work in a dingy noisy shop at more irksome and less congenial toil be entitled to the same privilege?

The query was an honest one and deserved an honest answer, we either had to restrict the privilege or extend it, we applied the latter remedy and have found the arrangement has worked very satisfactorily.

It was feared that difficulties would occur in making plans so that all could take their vacations at or about the time desired, but by harmonious action between the foreman and the shop force the vacations were all satisfactorily arranged and at no time was the successful carrying forward of the business interfered with by too many taking their vacations at one time, the benefits have been mutual and the system will be continued, we find a week's relaxation from work without anxiety concerning loss of income stimulates interest, endeavor and happiness.

Our factory has but one rule, "Whatsoever ye would that men should do to you do ye even so them," we find it eminently practical, we have directors for the arrangement of the work but no bosses.

We employ no child-labor, although many of our men really do children's work. We lay no claim to generosity, nor charity, it is simply justice, we do not claim that we have reached a just system of distribution yet and the little we are doing is simply an earnest belief of the dawning of a better day in industrial conditions.

We believe as society grows, it is to be succeeded by a more just system of relation, and as we learn by experience and get wisdom to take other steps, we hope to be ready to go forward.

We are glad to know that the spirit of investigation and inquiry is abroad, and that there is a good deal of effort in different sections of the country to arrive at a more just social and industrial relation between employers and employees.

Mr. \_\_\_\_\_ of \_\_\_\_\_ Mo., is an employer of a large number of men who has given the "Profit Sharing System" serious thought and practice for a good many years; you will do well to also correspond with him.

Sincerely yours,

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## LOCATIONS FOR NEW INDUSTRIES

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## LOCATIONS FOR NEW INDUSTRIES.

Chapter 8, section 2470 of the Code says: "The commissioner shall collect information of and report on sites offering natural or acquired advantages for the profitable location and operation of different branches of industry; he shall by correspondence with interested parties in other parts of the United States, impart to them such information as may tend to induce the location of mechanical and producing plants within the state, together with such other information as shall tend to increase the productions, and consequent employment of producers."

Two thousand circular letters were sent to representative men in the state, embracing legislators, mayors of cities, and all the newspapers, from whom we received the most valuable information. The heartiness and promptness of these responses were especially noteworthy.

The following counties possess special advantages and many of the localities are willing to offer inducements for the location of new industries:

### ADAIR COUNTY.

*Adair*—Want grist mill, canning factory, brick and tile works, cigar factory, beet sugar factory, and department store.

*Bridgewater*—Plentiful supply of coal, water, and clay.

### ADAMS COUNTY.

*Prescott*—Coal and water in abundance.

### ALLAMAKEE COUNTY.

*Lansing*—Pearl button finishing plant, or any other light industry.

Iron mining is being developed in this county, and the outlook is promising for greater results from this industry.

*Postville*—Fine railroad facilities; cigar and canning factories wanted.

*Waukon*—Beet sugar factory and cold storage plant wanted.

## APPANOOSE COUNTY.

*Centerville*—Need more wholesale houses, beet sugar factory, pickle and canning factories, all of which could do well.

*Mystic*—Coal, water, timber, and stone of good quality, make this county suitable for almost any kind of diversified industry.

## BENTON COUNTY.

*Belle Plaine*—Splendid railroad facilities, fuel plentiful and cheap, inducements to prospective manufacturers, good surrounding markets.

## BLACKHAWK COUNTY.

*Cedar Falls*—Good water power, splendid shipping facilities, unoccupied plants on market at low figures, especially suitable for starch works, beet sugar factory, or paper mill; educational advantages and environments of superior character.

*Hudson*—General store, clothing store, dentist and lawyer wanted.

*Laporte*—Is in need of a cold storage plant.

*Waterloo*—Many new industries recently started which are doing well; can accommodate several more. Splendidly situated for manufacturing and jobbing.

## BOONE COUNTY.

*Boone*—Enterprising community, best of railroad facilities, good markets, cheap fuel, all kinds of manufacturing invited, superior inducements offered but no bonuses.

## BREMER COUNTY

*Waverly*—Good water power, many geological advantages which need developing. Brick, tile and cement industries would do well here, and encouragement given to those who would establish industries in good faith.

## BUENA VISTA COUNTY.

Vegetable canning factories would do well in this county, and fruit growing could be profitably and successfully operated.

## CALHOUN COUNTY.

*Lohrville*—Has first-class clay for brick and tile making, best of shipping advantages, vegetable canning factories could be operated at this place at a lower cost than in many other localities. Straw board and paper mills would find an ideal location here.

Thousands of tons of straw is wasted here every year. Sugar beet factories are especially desired by the farming community, who would give every material encouragement. The soil is particularly adapted to sugar beet raising.

## CARROLL COUNTY.

*Lake City*—Would aid any legitimate enterprise. Need a canning factory, a foundry, and a creamery.

*Carroll*—Wants a canning factory, foundry and machine shop, and light manufacturing; best of shipping facilities.

## CASS COUNTY.

*Atlantic*—Unlimited supply of water of good quality; will make site propositions, will give a rebate on taxation, and in other material ways aid new industries. Unexcelled railroad accommodations. Special industries to use corn products, pickling establishments, oat meal or other cereal mills, tomato and other vegetable canning factories would find this a profitable location.

## CEDAR COUNTY.

*Tipton*—Substantial aid will be given to any new industry.

## CERRO-GORDO COUNTY.

*Swoledale*—An idle creamery building could be utilized to considerable profit as there is great demand for local products. Wanted, a furniture store, dentist and a lawyer.

## CHEROKEE COUNTY.

*Cherokee*—Is badly in need of a vegetable canning factory.

*Aurelia*—Has admirable location for flour and grist mill. Good clay for brick and tile factory.

## CHICKASAW COUNTY.

*Nashua*—Splendid water power which would sustain several manufacturing concerns. A woolen mill could be purchased cheap and would be a profitable business for a practical man who could devote his time to the business.

*New Hampton*—Has excellent railroad facilities, and the community would help and encourage new industries.

*Ionia*—Has a good opening for an exclusive clothing store.

## CLAY COUNTY.

*Dickens*—Needs a canning factory and a cheese factory,

*Spencer*—Has best of water, good clay, and an abundance of sand and gravel. Transportation facilities good.

#### CLAYTON COUNTY.

*Guttenberg*—A splendid opportunity open to the basket making industry, or willow work of all varieties, labor is plenty and willows grow on the Mississippi river banks in profusion.

#### CLINTON COUNTY.

*Clinton*—Most favorably situated for box and furniture factories. Button works could do well here, especially a finishing plant. Excellent shipping facilities, and the citizens will materially help new industries.

*Delmar*—Is excellently located for transportation and abounds in material that would insure the success of brick and tile works, canning factories and beet sugar industries.

#### DALLAS COUNTY.

*Minburn*—Possesses a remarkable supply of the purest water. Any industry requiring large supplies of water could with advantage investigate this locality. Canning factories, cheese factories and kindred industries would find hearty support from the surrounding community.

*Adel*—Is in need of a vegetable canning factory.

*Dallas Center*—Is in need of brick and tile works, a steam laundry, an electric light plant, and an elevator. The people will give material encouragement to prospective industries.

*Deater*—Has an elegant location for a vegetable canning factory.

*Perry*—Has a good opening for a sugar beet plant.

#### DAVIS COUNTY.

*Bloomfield*—Has an abundance of good water, clay and timber that would meet every requirement for the profitable location of brick and tile works, canning factories, cheese factories, wagon and handle factories, and the people will give material inducements to new industries locating here.

#### DECATUR COUNTY.

*Leon*—Is in need of a flour and grist mill.

#### DICKINSON COUNTY.

*Lake Park*—Has ideal location for creameries and flouring mills.

A laundry badly needed. Splendid uncovered territory to draw on for sustenance of any such industries. Good shipping facilities, and material aid would be given by citizens. A cigar factory would be an appreciated institution.

#### DUBUQUE COUNTY.

*Dubuque*—Claims to be unexcelled; with natural advantages, and is prepared to extend every material help to new enterprises. The extensive lead and zinc mines in this county are being developed surprisingly.

*Dyersville*—Sites and building materials can be secured here cheaper than at any other point in state, rich territory, ample shipping accommodations and inducements extended to new industries.

#### EMMET COUNTY.

*Estherville*—This locality affords a good location for canning factories, woolen mills, and several wholesale establishments are wanted, especially in grocery lines; information and assistance cheerfully furnished by citizens to new industries.

*Armstrong*—A profitable location for brick and tile works.

#### FAYETTE COUNTY.

*Maynard*—A first-class men's furnishing store would do well here, and an opening for a good vegetable canning factory is waiting the first comer.

#### FLOYD COUNTY.

*Charles City*—Beet sugar culture would be a success in and around this territory, and a factory here would be welcome and supported. Any other light industry would find this a good location.

#### FREMONT COUNTY.

*Hamburg*—Natural advantages abound for industries dependent upon raw material from the farm. Water supply is so plentiful that it could be secured without cost; access to profitable markets is unexcelled, and every assistance would be extended to prospective or assured industries.

#### GRUNDY COUNTY.

*Conrad*—A good sand stone quarry here, could be profitably operated and brick and tile works are needed badly.

*Beaman*—Elegant deposit of clay here, suitable for paint manufacture. The town would offer special inducements to manufacturers of brick and tile, paints or any other light industry.

*Grundy Center*—A splendid location for canning factory, or beet sugar industry as beet culture could be profitably engaged in at this place.

#### GUTHRIE COUNTY.

*Jamaica*—Abundance of the best water for manufacturing and steam purposes. Plenty of timber that could be worked up in various ways. Good shipping facilities, and substantial inducements offered to industries locating here. Coal is plentiful and cheap.

#### HAMILTON COUNTY.

*Webster City*—Exceptional advantages for manufacturing of all kinds; water and coal cheap, plentiful and of the best quality; transportation facilities the best, and an exceptionally rich and productive soil.

*Ellsworth*—A brick and tile factory, broom factory and a canning factory wanted, and which would be assisted by citizens to get same established.

#### HANCOCK COUNTY.

*Britt*—Brick and tile works, flax or tow mill wanted and all kinds of wholesale and retail stores, and professional men would find excellent openings here; best railroad facilities, prosperous surrounding territory which would respond quickly by assisting new industries or business of any character.

#### HARDIN COUNTY.

*Eldora*—The finest of clay abounds in this locality, suitable for sewer pipes, brick, tile and pottery; the industry is already a large one here but is capable of unlimited extension. Substantial encouragement will be extended to new comers. A canning factory is an immediate necessity.

*Hubbard*—Where is the compensation for all this work?

*Union*—There are the finest beds of clay here, suitable for brick, tile or potteries.

*Iowa Falls*—Many advantages abound of interest to prospective manufacturers. Unlimited water supply of best quality, building stone and fire clay; sugar beet factories needed at once; the beets grown here are of the finest quality and are sent out of

the state to foreign beet sugar factories. Lime stone deposits waiting for development.

#### HARRISON COUNTY.

*Little Sioux*—Water power excellent. Lower freight rates wanted before manufacturers could successfully compete with Council Bluffs or Omaha.

*Missouri Valley*—Splendid opening for an elevator and cleaning mill, excellent railroad point for distribution. Beet sugar factory and foundry wanted.

*Logan*—Very superior advantages for a thriving manufacturing center. The finest lime stone quarries in the world are situated here. Splendid groves of hard wood, consisting of oak, walnut, etc. A variety of industries could be operated here with profit, viz: Woolen mills, wooden ware, boots and shoes, brick and tile works. The clay in this vicinity is of a very superior quality. The Boyer river would furnish cheap motive power. Extract from the late senator Bolter's letter.

#### HENRY COUNTY.

*Salem*—Gone to seed.

*Winfield*—A canning factory wanted immediately. A mass meeting of citizens was called to consider the enquiry and a committee appointed to secure pledges with the result that substantial aid was guaranteed to any suitable industry that could be located here; especially one that would use the farm product.

#### HOWARD COUNTY.

*Cresco*—Natural advantages of a superior kind for the location of beet sugar and canning factories. An electric line needed at once, connecting Waukon, Decorah, Cresco, Riceville, Mason City, etc. Such an enterprise would be a very profitable undertaking.

*Elma*—Substantial inducements will be made for the installation of a canning factory, or any industry that will employ idle labor and build up the town.

#### HUMBOLDT COUNTY.

*Bode*—A very excellent quality of clay is waiting development. A canning factory is also wanted.

*Humboldt*—Furniture factory, canning factory, brick and tile works are all wanted here, and an excellent opportunity is open to the persons starting them.

*Remick*—An advantageous opportunity is open for a first-class general merchandise store.

#### IDA COUNTY.

*Ida Grove*—This locality will extend a substantial welcome to any suitable industry locating here, and will support it with a vim.

#### IOWA COUNTY.

*Victor*—Elegant beds of clay, suitable for fine pressed brick and tile making, and an exceptional good market for the product.

#### JASPER COUNTY.

*Newton*—Every inducement is offered to new industries locating here, water supply unlimited and of the finest quality, best of steam coal cheap. City owns electric power plant, and will furnish motive power at the lowest rates. No prospective industry can afford to overlook the opportunities offered.

#### JEFFERSON COUNTY.

*Fairfield*—The best of locations are offered here for manufacturing enterprises. Fuel and water is of the best, and in unlimited quantities. The people will offer the most liberal assistance to new enterprises. Shipping facilities are good, and additional sidetracks can be built.

#### JOHNSON COUNTY.

*Iowa City*—Natural advantages for the successful operation of canning factories, beet sugar factories, packing houses and woolen mills, and every assistance will be rendered to new institutions.

*Oxford*—Excellent beds of clay exist here, and a brick and tile factory is badly wanted, and a grist mill would do well. Railroad accommodations of the best.

#### JONES COUNTY.

*Wyoming*—There is an idle canning factory here equipped with modern machinery, which could be purchased cheap to the person or company that would locate here and operate it.

*Monticello*—Will give every inducement to enterprises that will consume the products of the farm. The creamery interests are well developed here.

#### KEOKUK COUNTY.

*Keota*—Offers especially good advantages for the establishment of a canning factory, and an oat meal mill.

*Keswick*—Good opportunities are open here for the successful operation of a creamery, brick and tile works. Good clothing store wanted together with a lumber yard and a hotel.

*What Cheer*—Natural advantages abound here for the successful operation of any manufacturing industry. Coal and water is plentiful and of the finest quality. Very fine beds of clay, suitable for fire brick or pottery ware is awaiting development.

#### LEE COUNTY.

*Keokuk*—Every advantage exists here for successful manufacturing, transportation by rail and boat sufficient for any requirements, good contributing territory, cheap rents, peaceful labor. Parties interested in the development of water power will be afforded every assistance, franchises for waterpower development having passed both houses of congress. This cheap power will make this location one of the most choice of any city in the west for new industries.

*Fort Madison*—A new packing house with modern equipment is ready for capable, responsible parties to operate. Splendid factory sites open and transportation facilities of the best. Every reasonable assistance given to new industries.

#### LINN COUNTY.

*Marion*—Wanted, a department store, and any enterprise locating here would be generously assisted and supported. Railroad accommodations unexcelled.

*Cedar Rapids*—While many improvements have been made and new industries have been established here, the field is still good for more; furniture, agricultural implements, pumps, wind-mills, milling, and every other kind of industry. Material assistance to new industries will be given.

*Mt. Vernon*—Magnificent stone quarries and good sites make this an ideal place for manufacturing; the best of building material being plentiful and cheap.

#### LUCAS COUNTY.

*Chariton*—A canning factory and a meat packing establishment are the most immediate necessities with a street car line to

Cleveland; city water works are wanted together with a sash, door and planing mill, brick and tile works and a normal school or college.

#### LYON COUNTY.

*Alvord*—An excellent opening for a creamery and small flour and grist mill.

*Larchwood*—Our natural advantages are of the kind that utilizes the products of the farm. We need a flour and grist mill, a cheese factory and a creamery, and a good general store would be generously supported.

#### MADISON COUNTY.

*Winterset*—We want a canning factory badly.

*Truro*—A beet sugar factory and brick and tile works could be conducted here to great advantage.

#### MAHASKA COUNTY.

*Oskaloosa*—If cheap fuel is an incentive to new industries then Oskaloosa is amply supplied, and a most substantial welcome will be accorded to prospective manufacturers and capitalists. Direct connection with three trunk lines of railroads, and a loyal community to local interests.

*New Sharon*—Industries are being attracted on account of recent municipal improvements. A canning factory and flour mill are now wanted.

#### MARION COUNTY.

*Knowville*—Well situated for manufacturing of all kinds; heavier the better. Coal and water is found here in inexhaustible quantities and the best quality. Good, accommodating railroads.

*Pella*—Wanted, a beet sugar factory and a water works system. To anyone seeking an economical location the people of Pella say: "Pay us a visit and we will make it worth your while for the effort and patronize the industry that is established."

#### MARSHALL COUNTY.

*Marshalltown*—Your inquiry is certainly an important and aggressive one and must do good. Marshalltown is the king point to locate any factory whose products can be used in an agricultural community. Our railroad facilities are first-class.

Go on with the good work, and interest factory owners not only for this city but for the state.

#### MITCHELL COUNTY.

*Osage*—A splendid water power near here, which could be obtained for a song. We need brick yards, flax mills, paper mills. Have finest kind of clay and stone. Any business enterprise locating here could not help but be successful from the start.

#### MONONA COUNTY.

*Ute*—We need a flour and grist mill.

#### MONROE COUNTY.

*Albia*—No place in the west offers such positive inducements for factory location as this; fuel the best and the cheapest, quantity unlimited. Do your best to attract capital to this inviting and profitable field.

#### MONTGOMERY COUNTY.

*Stanton*—We need the following and can support them: Brick yard, flour mill, canning factory, beet sugar factory, woolen mills, foundry and machine shop, cigar factory, agricultural implement factory, a packing house, a starch factory, a steam laundry, an oatmeal mill and numerous other industries.

*Red Oak*—Natural resources are good: Building stone, fine fire clay, good water supply and a very productive soil; we have good coal here at reasonable depth which has not yet been worked. A canning factory, starch mill, paper mill and other similar industries would prosper here and responsible parties could get substantial assistance. Our new electric power company is prepared to furnish power to all users. Our principal asset is our cleanliness, both physically and morally.

*Villisca*—Our citizens would be glad to assist any good enterprise by bonus or sites for buildings. A canning factory is badly needed.

*Elliott*—Fine shipping point and good location for manufacturing; our citizens are ready to encourage new industries. We need a flour mill, drug store, harness shop, lumber yard, machine shop and many others could be profitably located here.

## MUSCATINE COUNTY.

*Muscatine*—Any good industry that wants to flourish and secure loyal support of a vigorous, loyal community cannot afford to ignore Muscatine as a location, especially manufacturers of finished lumber articles.

## O'BRIEN COUNTY.

*Paullina*—Golden opportunities are awaiting the investors in this locality. In the beet sugar industry, first the cultivation of our productive soil towards that end, and then use the product after locally refining it. A canning factory is also needed.

*Sheldon*—The best location for utilizing cereal products through manufacturing processes.

## OSCEOLA COUNTY.

*Sibley*—"Our farmers are prosperous and our business men have no offer for promoters seeking new lines of industry," from one point of view. Another states that "the locality affords advantages for an academy, a lumber yard and an oat-meal mill, or a beet sugar factory, or any other industry that will utilize the products of the richest agricultural territory."

## PAGE COUNTY.

*Blanchard*—We need a cheese factory or creamery.

*Clarinda*—We have some coal and plenty of water. Our people would co-operate with parties who would open a canning factory or other plant that would utilize our agricultural products. Shipping facilities are excellent, and taken altogether it is an ideal location for new industries.

*Shenandoah*—Almost everything of a manufactured nature is shipped here, which is essentially wrong; we need a wholesale grocery, a poultry packing establishment, a cold storage plant. An ice manufacture is needed. The ice we get is poor and filthy and the cause of considerable sickness. Another brick and tile plant would do well, and so would an independent lumber yard. This is a sure corn crop country and we need an industry that will make implements for its cultivation and others that will convert the product into marketable articles. A foundry and machine shop is especially wanted.

## PALO ALTO COUNTY.

*West Bend*—A very desirable location for a beet sugar factory or tow mill that will change the marvelous productivity of our soil into other marketable commodities. Our people can be depended on to encourage every commendable enterprise.

*Emmetsburg*—We have idle a well equipped packing house. It can be purchased cheap. It could get support from a radius of 150 miles. It is admirably adapted for co-operative efforts.

## POCAHONTAS COUNTY.

*Rolfe*—We stand ready to give a liberal bonus to any enterprise that will locate here. Our shipping facilities are of the best; we have easy access to fuel. A brick yard and a canning factory could be conducted with profit here.

## POLK COUNTY.

## OFFICERS OF THE COMMERCIAL EXCHANGE.

Natural advantages possessed by Des Moines for the profitable location of new industries.

Cheap and abundant coal.

The best of water for steam purposes.

Exceptionally good railroad facilities.

Surrounded by a rich farming district.

Centrally located, as regards territory naturally tributary.

Abundance of clays for brick, tile, pottery, etc.

A great insurance centre.

A great banking centre.

A city of homes and schools, etc., etc.

The fact that there are eighty-five churches in this city gives assurance that Des Moines is, morally speaking, a desirable place of residence.

Des Moines is the third city in the United States in the storage, handling and distribution of farm machinery. Notwithstanding this fact 98 per cent. of the implements used by our farmers are made in adjoining states and shipped into Iowa by the car load, for sale and distribution. In other words, having cheap and abundant coal, much of the raw material, and the best market in the world, Iowa makes but 2 per cent. of the goods consumed in this direction.

The list of Industries which ought to thrive in Iowa, and which follows, is headed with "Implement factories," inasmuch as they logically should be made near the point of consumption.

Industries needed in Des Moines and which logically belong here and should thrive.

Factories for farm machinery of all kinds, mowers, reapers, plows, harrows, corn planters, seeders, etc., etc.

Farm wagons.

Potteries; clays of all kinds abundant.

Hollow building brick, both glazed and rough.

Mining tools.

Canning establishments for tomatoes, sweet corn, etc.

Glucose factory.

Oat meal mills.

Strawboard factory.

Woven wire fence factory.

Paper mill.

Celulose factories, to work up our corn stalks.

Pulp mill.

Rolling mill, to use up our immense supply of scrap iron, can be worked into merchant bar, etc.

Malleable iron foundry.

Starch works—one factory here—room for more.

Furniture factories.

Linseed oil mill—one factory here—room for more.

Shoe factories.

Mixed paint factories.

There might also be added to the above important list a few industries which ought to thrive here.

Church pipe organ factory.

Piano factory.

Freight and passenger elevator factory.

Stove works.

Wood box factory.

Refrigerators.

Soda water apparatus.

Smelter, etc.

*Altoona*—This locality is in need of a hotel and more retail stores.

#### POTTAWATTAMIE COUNTY.

*Oakland*—An excellent opening here for any branch of the milling industry.

#### POWESHEIK COUNTY.

*Grinnell*—Good railroad center, would welcome any new industry and give it substantial encouragement.

#### RINGGOLD COUNTY.

*Knockton*—Investors are cordially invited to personally inspect

this locality; a large stock of general merchandise is on the market, and a drug store, harness shop and a first class meat market is wanted here.

*Delphos*—Would appreciate a canning factory locating here.

*Tingley*—Plenty of natural advantages exist here for the favorable operation of creameries, cheese factories, canning factories, woolen mills and the people are so desirous of getting such industries established that they would aid in every way possible to make them a success. A first class flour mill is needed.

#### SAC COUNTY.

*Sac City*—A fine opening here for a good hotel and an up to date brick yard would do well; elegant clay here.

*Lake View*—Wanted a first class hotel, a lawyer, and a tailor. Our elegant summer resort needs improving.

#### SCOTT COUNTY.

*Davenport*—Possesses every advantage for successful industries. Cheap fuel, low freight rates, superb shipping facilities, fine water supply and power, plenty of skilled labor, good sites for manufacturing purposes at low prices, and has the reputation of being the healthiest locality in the country.

#### SHELBY COUNTY.

*Shelby*—We are admirably located for a canning factory and a brick yard; further information cheerfully given.

*Harlan*—A dry goods and grocery jobbing establishment is badly needed here, good territory and good railroad connections.

#### STORY COUNTY.

*Roland*—Natural advantages the best for a canning factory.

*Slater*—A butter tub factory would find this an excellent location; our citizens would aid in a financial way to make it successful; our railroad connections make this a good shipping point.

*Maxwell*—Our citizens would offer good inducements to parties putting up a good canning factory here. We need several industries to employ our surplus labor. A good steam laundry and an electric light plant would fill our needs admirably.

*Colo*—We have a good opening for a first class clothing store.

#### TAMA COUNTY.

*Traer*—Finest of shipping facilities. Inducements of a

substantial character offered to new industries; best of water and electric power furnished at half rates. There is no better location in state.

*Tama*—Any line of industry locating here will be gratified, a splendid wood working machinery plant for sale cheap, providing manufacturing will be done here.

#### TAYLOR COUNTY.

*Bedford*—This excellent agricultural region will offer big inducements to a canning factory locating here.

*Gravity*—Our community is growing rapidly and now needs a good brick and stone mason, bakery, good brick yard together with a canning factory.

#### UNION COUNTY.

*Creston*—A flour and grist mill would be a paying investment from the start; and would be encouraged. The finest of wools are grown in this territory and woolen manufacturing would be a good business to introduce here. The best natural advantages. Here is plenty of labor and a good supply of water.

#### VAN BUREN COUNTY.

*Cantril*—We have excellent location here for a pickling or preserving factory, a pressed brick manufactory, splendid clay for the purpose. A handle factory and a hardware store could also be located to advantage to all concerned.

#### WAPELLO COUNTY.

*Eldon*—Every advantage exists here for manufacturing industries on a large scale; coal and water of the best quality and limitless quantity; the timber supply is abundant, shipping connections the best, labor plentiful. City owns its modern water and electric lighting plant.

*Ottumwa*—Is peculiarly well situated for manufacturing, the three great requisites—coal, sand and water—being plentiful here. A straw paper industry is wanted. Starch and linseed oil were formerly good industries here, and the vacant buildings could be utilized again for those industries, or obtained cheap for others. In fact, no kind of manufacturing would be amiss in Ottumwa. Railroad facilities good, and a fine contributory territory.

#### WARREN COUNTY.

*Indianola*—The brick industry could be profitably maintained here.

#### WASHINGTON COUNTY.

*Washington*—Has many advantages for an industrial population—low rate of mortality, excellent sewage system, low rate of taxation, high grade of morality, water system owned by city, will make it interesting to prospective manufacturers.

*Riverside*—An electric lighting plant, a local telephone system and city water-works are the first immediate necessities here.

*Brighton*—Well supplied with building materials, and our locality is suited to the manufacture of corn products and cereals; good water, good clay.

*Wellman*—A good brick yard is wanted here. We have splendid clay.

#### WEBSTER COUNTY.

*Fort Dodge*—Sugar beets can be grown here successfully, and a beet sugar factory is wanted. Many industries have been started here recently, but there is still room for more. Unlimited quantities of coal, wood, stone, clay and water, and the finest of railroad facilities. The immediate necessities are a shirt and overall factory and a bag factory. Liberal inducements offered to new industries.

*Dayton*—Every support would be given a first-class flouring mill and a canning factory; an ideal place for such institutions.

#### WINNEBAGO COUNTY.

*Forest City*—Splendid opening here for a pickling establishment and a beet sugar refinery, and no better opportunities exist than here for a foundry and machine shop, business college, planing mill, and brick and tile yard. A central steam-heating plant is also desired.

*Buffalo Center*—A canning factory and brick and tile yard are wanted, and particularly a first-class lawyer.

*Rake*—Every opportunity afforded for new business and industries, retail stores. Professional men of all kinds will be made welcome.

#### WINNESHEIK COUNTY.

*Calmar*—The finest of railroad facilities offer extraordinary

inducements for the location of varied industries. A first-class clothing store is wanted at once.

#### WOODBURY COUNTY.

*Marion*—We want and will assist in maintaining a canning factory and flouring mill.

*Sioux City*—Our main advantages lie in the splendid location Sioux City has for distributing over a wide area. Light or heavy manufacturing could be successfully carried on, especially a tannery and boot and shoe factory, woolen mill and every associate industry which uses animal products for raw material. Unstinted support will be given such manufacturers by our people.

#### SPECIAL REMARKS.

This important phase of the Labor Commissioner's duties is treated fully in the letter of transmittal.

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## MANUAL TRAINING IN IOWA.

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## MANUAL TRAINING.

For the purpose of complying with the law, Sec. 2470:

The Commissioner shall include in his biennial report what progress has been made with schools now in operation for the instruction of students in the mechanic arts, and what systems have been found the most practical, with details thereof.

I prepared the following letter:

Will you kindly inform this bureau what measures have been taken to establish manual training in your schools, and any other information relating to the progress of your work that you would deem to be of public interest, and of value for our report?

We sent the foregoing to all the county superintendents and to the superintendents of city schools, and I give their replies in full.

I regret so little has been, and is being done, but I am of the opinion that the public is becoming awakened to the importance of manual training in the schools.

THE FOLLOWING REPLIES ARE FROM COUNTY SUPERINTENDENTS:

### ADAIR COUNTY.

There has been nothing in our county along the line of manual training.

### ALLAMAKEE COUNTY.

Our county has taken no steps toward manual training schools, or classes, as yet. I might say that all our schools (131) are graded and classified. We use the "Welch system". I can truthfully say that our schools are gaining both in interest and class of work.

### APPANOOSE COUNTY.

There have been no measures taken in this county along the lines of manual training.

### BLACKHAWK COUNTY.

Regarding manual training in this county I would say there is nothing being done in the way of manual training in the public schools. Three graded schools, Cedar Falls, East Waterloo, and West Waterloo, have special teachers for physical culture in connection with all grades.

## BUENA VISTA COUNTY.

None of the schools in this county have manual training.

## CALHOUN COUNTY—ROCKWELL CITY.

No measures have been taken in this county along the lines of manual training.

## CASS COUNTY.

Do not know of anything unless physical culture. Physical culture is being taught more systematically in our schools.

## CEDAR COUNTY.

Would say that so far as I have learned nothing is done in those lines.

## CHICKASAW COUNTY.

No steps along the line mentioned.

## CLAYTON COUNTY.

Nothing has been done in manual training.

## CLINTON COUNTY.

No effort has been made that I know of toward introducing manual training.

## CRAWFORD COUNTY.

We have no report to make.

## DALLAS COUNTY.

I am sorry to say that the schools of this county have been doing nothing whatever in the line of work for which information is asked.

## DAVIS COUNTY.

Nothing has been done in this county concerning manual training in the schools.

## DECATUR COUNTY.

Concerning manual training in the public schools I will say that nothing has been done in that direction yet.

## DICKINSON COUNTY.

Practically nothing has been done.

## EMMET COUNTY.

Know of nothing in the line of manual training, strictly speaking, being done in the schools of this county. Our towns are too new and it may be several years before we can hope to reach the stage of manual training.

## FAYETTE COUNTY.

We feel the need of manual training, but have made no definite progress along that line.

## FLOYD COUNTY.

No manual training is done in any school in the county.

## GREENE COUNTY.

There is a tendency on the part of school officers and teachers to place more stress on manual training in our schools. While nothing of any particular importance has been done in a practical way, yet I believe many of our progressive teachers are doing the best they can under existing circumstances to develop in the pupil a love for physical labor.

Our teachers, and I believe parents too, are coming to recognize more and more the folly of holding out to the child the idea that to be eminent he must train for the professions and neglect, possibly look down upon, the trades or physical labor.

This is step in the right direction, and hope this feeling may strengthen until all will recognize the training of the hand to be necessary in the education of every child.

## HANCOCK COUNTY.

Nothing has been done along the line of manual training in our schools that is worthy of mention. Garner schools have a gymnasium on a small scale.

## HARDIN COUNTY.

None.

## HENRY COUNTY.

In the line of manual training there is nothing taught except writing, drawing, and some kindergarten work, and these are well taught.

In several schools they make pulp maps and use sand tables but none are using tools or doing any work beyond this. They are taught to use apparatus already provided but not to make any.

A special effort is being made to improve the spelling and use of English in our schools, and we have each year (1900 and 1901) a school exhibit in which any work the children can do will be accepted.

## HOWARD COUNTY.

Think nothing here done is what you desire reported.

## HUMBOLDT COUNTY.

Physical culture and general athletic work is quite in our larger graded schools. In the mechanical arts only a little is being done in two high schools.

## JACKSON COUNTY.

I know of no distinctively manual training in any of our public schools in the county. So many "fads" along the intellectual (?) lines, leave but little opportunity for the eminently practical. The schools, under modern legislation and so-called leadership, are fast growing away from the people.

## JEFFERSON COUNTY.

No measures have been taken along the line of manual training.

## KEOKUK COUNTY.

Very little has been done in this county along the line of manual training in the public schools. As county superintendent, have urged some of the leading educators, as well as school boards, to take some action. One thing, we do not have any large towns in the county, so we cannot get as prompt action as we could if we had larger schools. However, the sentiment is growing.

## KOSSUTH COUNTY.

Have no knowledge of any measures being taken in this county along the lines of manual training. Uniform text books and consolidation are most important.

## LOUISA COUNTY.

There has been nothing done along the line of manual training in this county.

## LUCAS COUNTY.

As yet our school boards have taken no action toward establishing manual training schools. There is talk of it for the Chariton schools, but no provision is made for it so far.

## LYONS COUNTY.

There has been practically nothing done in this county along the line of manual training.

## MADISON COUNTY.

There is nothing done along the lines of manual training. The work of the schools in this county is generally good and the work is in closer touch with nature and the sciences than formally.

## MAHASKA COUNTY.

There has not been much in that line. I do not know of anything. There is what is called an industrial school, managed by some of the women of the town, who look after charity. It is not in connection with the public schools. They teach sewing, patching, etc.

## MARION COUNTY.

Am sorry to say that the schools of our county are doing practically nothing along the line of manual training.

## MILLS COUNTY.

I have no graded schools in this county in which any work in manual training is done.

## MITCHELL COUNTY.

Nothing has been done in the matter in this county.

## MONONA COUNTY.

Nothing special along the line of manual training has been done in this county excepting what little is done in connection with the study of drawing.

## MONROE COUNTY.

There has been no instruction in the Mechanic arts in this county.

## OSCEOLA COUNTY.

Nothing has been done in the schools of this county along the line of manual training. I am heartily in favor of this work and would appreciate information along this line.

## PAGE COUNTY.

Indolence and disobedience are two evils that are arresting the moral and educational development of the youth of this land more than all other evils combined. There must be something done to provide manual labor, manual training for the youth of our towns, villages and cities. Business men go to their places of business in the morning before the children are up and return home at night after they have gone to bed. Hence the children are in the hands of the mother when not in school. The girls as a rule are properly cared for while the boys are turned loose on the street to misuse their time in debauchery. We may pride ourselves on good schools and efficient teachers as much as we please, but we will never reach the better parts of the child until we develop the industrial nature of his being; until we train his eye and hand as well as his brain. And again, this is a day for quantity rather than for quality in education. The child undervalues the common branches and hastens to part company with them. He wants to get into the higher branches. Reading, writing, spelling and arithmetic are beneath his dignity. He wants to study Latin, French, German or any other, but the English language. He wants to study higher mathematics before he knows anything about arithmetic. He must get through the book in a given time. He thinks more about getting through the book than he does about the principles in the book.

I consider that the common branches are the foundation stones for the super structure of education, and the child should be required to master them before being passed on. I am working to that end indicated above and am trying to get teachers and parents to see as I see in this matter, and I am glad to say that they are beginning to do so.

## PALO ALTO COUNTY.

We have done nothing that would properly belong to your report.

We have made our system of books uniform, adopted and are carrying out a course of study. Put in \$3,200 worth of library books in the past year, and the quality of our work has greatly improved. Our attendance is 18 per cent. better this year than last, but nothing done in manual training.

## PLYMOUTH COUNTY.

I have to report that not much has been attempted along this line. Some work has been done incidentally, but no regular and systematic effort has been made.

## POCAHONTAS COUNTY.

I know of nothing that would be of interest to your report.

## POLK COUNTY.

Would say that we have had manual training in the West Des Moines schools for a number of years. Some experimenting is being done this year in some of the lower grades with a view of establishing manual training in the lower grades in the different ward schools.

## RINGGOLD COUNTY.

Nothing has been done along the line of manual training in this county.

## SCOTT COUNTY.

Nothing has been done in the line of manual training outside of the city of Davenport.

## SHELBY COUNTY.

None whatever.

## SIOUX COUNTY.

No such training is found in any school to my personal or official knowledge.

## STORY COUNTY.

Nothing definite has been introduced into the schools of Story county with reference to manual training. The children in some of the primary grades are taught to use the needle and do some paper cutting, while drawing is given a prominent place all through the grades, being associated with botany and physics in upper grades.

## TAMA COUNTY.

Will say that nothing has been done in our county along the lines of manual training.

## TAYLOR COUNTY.

There has been nothing done in manual training in the schools of this county.

## WAPELLO COUNTY.

There is no progress in the line of manual training or mechanic arts. There is no attempt made in the county, so far as I am able to ascertain. I do not have anything in that nature that would come within the scope of your report. I am sorry that such is the case. I wish that industrial might be emphasized in the state of Iowa. It is a logical, rational basis of education and the exigencies and demands of the times must be felt ere long in this respect.

## WASHINGTON COUNTY.

Nothing special has been done in our county. We have no cities, as is well known.

## WAYNE COUNTY.

Manual training has never been introduced into the schools of this county. There is no feature of any particular interest connected with the progress of our schools. Just at present a special effort is being made to make the new

school library law a success in this county and I am gratified at the way the boards are responding to my effort.

## WEBSTER COUNTY.

Nothing is being done along these lines.

## WINNEBAGO COUNTY.

I must say that "manual training," in the full sense of the words, is sadly neglected in the schools of this county. Outside of the making of apparatus for experiments by pupils in the high school, and clay modeling, and other similar minor exercises in the lower grades, nothing has been done to further manual training. I deplore this condition, but hope to be able to report more favorably next year.

## WINNESHIEK COUNTY.

I am forced to say that our county has not as yet introduced any form of manual training into her schools. Perhaps the fact that we have recently completed three new school buildings, of modern design, may be of some interest. These buildings are 24 x 30; side and rear lighting; basement heating apparatus, and ventilating shafts and registers arranged in accordance with the latest plans and specifications of the best architects. The recent library enactment is being pushed and most of the boards are glad to see some move of that sort pushed. We have already selected the books for several of the townships and there is every reason to think that the library will be a grand thing for the people of rural communities as well as the children who attend school.

## WORTH COUNTY.

There has not been any measures taken along the lines of manual training in this county.

## THE FOLLOWING REPLIES ARE FROM SUPERINTENDENTS OF CITY SCHOOLS.

## APPANOOSE COUNTY—CENTERVILLE.

Centerville has never had such instruction in her schools. I have recommended its introduction to the board as soon as their financial interests will allow. Experimental work in the sciences is much improved; a laboratory for such work provided recently and we expect to introduce drawing during the present year, after holidays. These steps prepare the way for manual training.

## BLACKHAWK COUNTY—EAST WATERLOO.

In our school we teach mechanical drawing, but not manual training. Investigations are being made as to the feasibility of introducing manual training, since we have a room that could be utilized for that purpose. We would be pleased to receive any literature that would give us information in this line.

## WEST WATERLOO.

We have taken no steps toward establishing a manual training depart-

ment in our schools. Have not the room until we can have an additional building.

#### BOONE COUNTY—BOONE.

We do not have manual training, I am sorry to say.

#### BUCHANAN COUNTY—INDEPENDENCE.

So far nothing has been done in the way of manual training in our public schools. Of course we are continually trying to make our school work more and more practical.

#### BUENA VISTA COUNTY—STORM LAKE.

We have no manual training, but drawing and laboratory and fieldwork in sciences.

#### CERRO GORDO COUNTY—MASON CITY.

Our manual training department has been in operation for eight years.

We teach carpentry, wood-turning, mechanical and architectural drawing to pupils in grades seven to twelve. The most at present is confined to boys, and is optional with them.

We enroll about 150 boys, who do from one-half to one hour's work each day.

The boys are very fond of the work, and they show the results in their other work, especially in mathematical studies. They rapidly develop in painstaking accuracy, independent action; foresight, courage, quick observation, intense interest and all the qualities of manhood.

Each boy progresses as fast as he can develop the proper skill. This is a strong incentive to ambitious boys. Only one exercise of a kind is made, so that there is nothing to depreciate the value of the work as an educational means. The shop and the factory teach nothing, because one thing is constantly repeated. The manual training school is strictly a school for constant progress and growth.

#### CHEROKEE COUNTY—CHEROKEE.

Our schools have taken no steps toward manual training.

#### CLINTON COUNTY—CLINTON.

Nothing has been done as yet to establish manual training here, but there is a strong sentiment in favor of it.

#### DELAWARE COUNTY—MANCHESTER.

No measures have been taken to establish manual training in our schools. At present we are not prepared for it, so far as room is concerned.

#### DES MOINES COUNTY—BURLINGTON.

We have no manual training in our city schools. The expense of introduction and support is the principal cause.

#### DUBUQUE COUNTY—DUBUQUE.

We have not yet introduced manual training. We have discussed it several times and the general opinion is that it will find its way into our

schools in the near future. We are doing some work in drawing with this end in view.

#### FLOYD COUNTY—CHARLES CITY.

We do not have manual training in our schools, although I should be pleased to have it

#### GUTHRIE COUNTY—STUART.

We have no manual training department in our public schools.

#### HAMILTON COUNTY—WEBSTER CITY.

Nothing is done in these schools towards teaching the mechanic arts.

#### HARDIN COUNTY—ELDORA.

We have no manual training except such as comes in incidentally in the primary grades in paper folding, weaving of forms in mats of paper, etc., and such normal training as is of necessity involved in learning to write and draw. In the upper grades we get some work of this nature in physics, botany and geometry. I inclose herewith our course of study, which I trust will answer all questions outside of normal training branches. I shall be glad to do anything I can to further this movement.

#### HARRISON COUNTY—MISSOURI VALLEY.

We have no facilities for shop work of any kind; but we are emphasizing more each year the many school occupations that involve hand work and that bring into play the constructive faculties. Thus, we have drawing, clay modeling, paper cutting, stick laying, writing, some sewing in primary grades, a bit of whittling, and much measuring, handling and comparing of objects. To these we are adding a little work in water colors.

Most of our pupils are familiar with many phases of railroad construction and operation. The railroad machineshops here are quite extensive, and nearly all our families are represented among the laborers there or in some other form of railroad service. Many of our boys go to the shops to work as soon as they are old enough.

I am satisfied that the introduction of bench work for boys and girls and sewing, cooking, and other forms of domestic art for others, would strengthen our educational work and make it of far greater worth to many of our that people. That is, I believe we would get better intellectual and moral results in many cases through a larger dependence upon manual activities. The cost of introducing and maintaining such courses is all that postpones it here.

#### JASPER COUNTY—NEWTON.

Manual training is not undertaken in the Newton schools.

#### JOHNSON COUNTY—IOWA CITY.

We have a manual training department in the Iowa City schools. Pupils from the fifth to twelfth grades take the work. There are 350 pupils now carrying this work. Both boys and girls are admitted to the classes. The work has proven very helpful and stimulating to the children.

## KOSSUTH COUNTY—ALGONA.

We have no regular manual training. We have drawing in all grades and much sense training in the primary departments.

## LEE COUNTY—FORT MADISON.

Nothing along the line suggested has been undertaken.

## LEE COUNTY—KEOKUK.

We have made just a beginning for the work this year. The introduction of card board construction in the third year.

## LYON COUNTY—ROCK RAPIDS.

No measures have been taken looking forward to the introduction of manual training in our schools.

## MAHASKA COUNTY—OSKALOOSA.

The only manual training connected with our schools is under the direction of a committee of ladies who meet once a week with about one hundred children to give them instructions in sewing. The school board purchases material and the ladies do the work gratuitously. The pupils are nearly all girls.

## MARSHALL COUNTY—MARSHALLTOWN.

We are doing nothing along the line of manual training at present.

## MILLS COUNTY—GLENWOOD.

## STATE INSTITUTION.

This institution has for many years included manual training as a part of the education of the inmates under its care. The equipment for such training now includes, for the boys, brickmaking, farming, gardening, mattress making, shoe making and cobbling, carpentry and wood turning, type setting and printing, and bread baking.

For the girls, dress making, plain sewing, laundering (ironing), cooking, general domestic work, and type setting.

It should be borne in mind, however, that very few inmates of the institution become proficient in any handicraft and that practically none become self supporting in the ordinary use of the term, and that all require intelligent supervision and direction during their labor. Their capabilities are in every case limited and fall short of the normal.

The following are the statistics of the various occupations at which the children have been engaged for the year ending June 30, 1900.

(NOTE.—All products of the various industries are used in the economy of the institution.)

## BRICK MAKING.

Number of boys instructed.....30  
Product (common slap brick).....595,000

## FARMING AND GARDENING

Number boys instructed.....33

Number of acres.....400  
Products, total value.....\$13,418.14

## MATTRESS MAKING.

Number boys instructed.....3

## SHOE MAKING AND COBBLING.

Number boys instructed.....5  
Products: New shoes made, pairs.....21  
Old shoes repaired.....2,607

## CARPENTRY AND WOOD TURNING.

Number boys instructed.....24

## TYPE SETTING AND PRINTING.

Number boys instructed.....2  
Number girls instructed.....2

## BREAD BAKING

Number boys instructed.....2

## PLAIN SEWING, HAND.

Number girls instructed.....50

## DRESSMAKING.

Number girls instructed.....2

## LAUNDRY WORK, IRONING.

Number girls instructed.....30

## COOKING.

Number instructed.....8

## DOMESTIC WORK.

Number girls instructed.....50

## MONTGOMERY COUNTY—RED OAK.

Nothing beyond writing and drawing. Nothing has been done in manual training, proper.

## MUSCATINE COUNTY.

We have rooms in our new high school building suitable for manual training, but up to the present almost nothing has been done to start the work. A bench and one set of tools is all we have and there is no regular systematic work done with these. At this time there does not seem any immediate prospect of organized work. I am heartily in favor of some elementary instruction and practice in manual training.

## O'BRIEN COUNTY—SHELDON, IOWA.

I will say that we have no manual training in our schools except in connection with our kindergarten department.

## PAGE COUNTY—CLARINDA.

So far nothing has been done in regard to establishing manual training in our schools.

## PAGE COUNTY—SHENANDOAH.

We have recently introduced drawing in our schools and have a drawing teacher. Under the direction of the superintendent teachers occasionally make exhibits of manual work done by pupils, including drawings, paper cuttings, modeling, whittling, sewing, cooking, and other manual work. No instruction is given, simply encouragement is given to manual training.

## POLK COUNTY—DES MOINES.

## CAPITAL PARK PUBLIC SCHOOLS.

As yet no steps have been taken to establish manual training in any of our schools.

## POLK COUNTY—EAST DES MOINES SCHOOLS.

Manual training has not been established in these schools. Aside from the regular work the only hand work the pupils in these schools enjoy are free hand drawing and scissor cutting.

## POLK COUNTY—WEST DES MOINES SCHOOLS.

In reply to yours of November 16th, manual training has been an integral part of the curriculum of the West Des Moines High School for six or eight years. We have there apparatus and machinery which have cost the district about four thousand dollars (\$4,000), and which is considered a complete manual training plant, for all wood work, including turning and wood carving. Since September, 1899, there have been placed in the grammar schools five complete outfits for Sloyd or elementary manual training work. Schools thus equipped are as follows:

Washington school, Crocker school, North High school, Lincoln school, and Elmwood school. Pupils in the sixth, seventh and eighth grades are allowed the privilege of taking this training. Those who desire to take manual training in the schools which have not yet been fitted with benches and tools are permitted to go to the High school once a week. No one is compelled to do the manual training work; it is entirely a matter of election. We have, however, a larger number of applicants to do the work than can be accommodated by our present facilities.

## POWESHIEK COUNTY—GRINNELL.

We have no work in manual training, but are agitating the question.

## SAC COUNTY—ODEBOLT.

In reply am sorry to say we are doing nothing here in manual training.

## SCOTT COUNTY—DAVENPORT.

A cooking school was established for girls of our ninth grade and High school in 1888, and a manual training school for boys of the same grades in 1889. Both schools have continued to the present time with increasing popularity and success. Membership in either school is entirely optional. In the cooking school nearly all the girls of the ninth grade and sixty-four per cent of the girls of the High school took the lessons last year. In the manual training school the percentage of ninth grade boys in attendance was seventy-four, and of the High school boys, sixty-five. The length of the

course in each school is four years. Upon the completion each pupil is given a diploma in certification thereof.

The course in cooking embraces all kinds of kitchen work and dining room serving. Theory receives attention as well as practice.

The following is an abstract of the course in manual training:

*First Year*—Course in sloyd, with working drawings of all exercises.

*Second Year*—Geometrical problems, projections, working drawings, machine drawings (parts), bench work and turning.

*Third Year*—Isometric drawing, geometry, curves, cams, gears, carving, bench work and turning.

*Fourth Year*—Architectural drawing, linear perspective, pattern making, molding, color.

The course in drawing in the grades below the ninth is such as to require a good deal of hand construction work. We expect to add more of sloyd work in these grades soon.

## TAYLOR COUNTY—BEDFORD.

No steps have as yet been taken preparatory to its introduction into our schools.

The only study we have that is related to it intimately is drawing.

I shall be glad when I can do something in the direction of manual training.

## UNION COUNTY—CRESTON.

No measures have been taken in this city to establish manual training in the public schools. The nearest approach to manual training is in our kindergarten department. We have three kindergarten schools under the public school system. Interest is taken by our board and many of our citizens in the subject of manual training, and we are hopeful of establishing it, in some form, in the near future.

## WAPELLO COUNTY—OTTUMWA.

The matter is being agitated, but nothing has been done.

## WEBSTER COUNTY—FORT DODGE.

Nothing done in this line.

## WOODBURY COUNTY—SIOUX CITY.

I have but little to report, as to what has been accomplished, but much that I might report as to what we hope will be accomplished in this direction.

Over eight years ago, it was my privilege and pleasure to make the following brief recommendation to our Board of Education:

Manual training in the form of drawing, paper cutting and pasting, clay modeling, carving, etc., has formed a part of our school course, and produced such excellent results, that we heartily recommend the extension of this line of work.

While there is a difference of opinion among leading educators as to the real value of that part of manual training, which has sometimes been termed "shop work," the sentiment is rapidly growing in its favor. The opposition to it has largely grown out of a misconception of its chief aim. Manual

training is not primarily introduced into the public schools for the purpose of developing skilled mechanics, but for the helpful, symmetrical development of all the pupil's powers.

The training of the muscles in this shaping and fashioning of the wood and iron, exercises a helpful, stimulating influence upon the mental and moral powers. The struggle with stubborn matter which develops and toughens muscular fibre. This contact with material forces generally develops a firmer mental grip, fosters stronger tenacity of purpose and tends to produce sturdier character.

I would therefore recommend that manual training be made a part of our high school course just as soon as our magnificent high school building is completed, and room can be made for the necessary tools and machinery.

The financial depression which followed, prevented the carrying out of those suggestions, as was intended. We are still without the machinery because of the expense, but are hoping to secure it ere long. There is no question but that active boys and girls, who now drift out of our schools because little opportunity is afforded for manual training, would, under such hand training, remain a longer time in our schools, and become more useful citizens.

#### WRIGHT COUNTY—EAGLE GROVE.

We are simply teaching the girls to darn and sew.

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## STRIKES IN IOWA.

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## STRIKES.

Realizing the need for definite, detailed data relative to strikes that have taken place in Iowa, we determined to secure the record of strikes for as long a period as possible as the information on this subject given in previous reports of the bureau was not complete.

The National Department of Labor, in its tenth annual report, gave an exhaustive record, with numerous summaries, of strikes in Iowa up to June 30th, 1894.

This strike record, now presented in the following tables, has been gathered in conjunction with the National Department of Labor, and on schedules conforming to those used by that department, as nearly as the industrial situation in Iowa permitted, and covers the period from June 30, 1894, to December 31, 1900.

Data, where possible, has been verified by employers and employees in all instances where issues joined.

In order that the reader may fully understand Table No. 1, reference is here called to the continuation of the same table on the next succeeding page, the marginal number on both pages corresponding to the same strike so recorded for each county in each year.

To make this table easily understood attention is directed to its two parts, viz: Table No. 1 part I and table No. 1 part II.

Taking, for illustration, the first strike recorded, marginal number one, took place in Appanoose county and was ordered by a labor organization "against the retention of three days' wages as a guaranty to continue work" the strike is known as a general one and embraced fifteen establishments or mines; it ended successfully for the employees and lasted ten days, the wage loss to the employees was \$4,000. They received no outside financial assistance; the employers loss is given as \$1,000.

Following this tabulation on the succeeding pages, marked Table No. 1, part II, and bearing the same marginal number 1, it will be seen that 380 males and no females were employed previous to the strike; the strike was undertaken for 380 persons, or all the males employed; there were 320 strikers and 320 persons thrown out of employment; at the termination of the strike no new

employees were engaged and none brought from other localities; all the strikers were reemployed; the hours of labor was not changed on account of the strike, sixty hours comprising the week's work previous to and at the termination of the strike.

This system has been maintained and can be readily understood by perusal of the balance of the table.

The next table No. 2 gives a combination summary of the strikes in counties where they occurred with the total summary of all strikes in all counties in the state for the year, as for instance—

Marginal number nineteen, shows that in the year 1899, five strikes occurred in Woodbury county, 103 employes struck in the interest of eighty-nine employes. Four of the strikes were ordered by labor organizations, and one was not ordered by a labor organization. Four of the strikes were successful, and one was a failure. Twelve establishments were involved, not any of which were closed. One hundred and thirty-eight days were lost and the employees loss in wages was \$2,684. Outside financial assistance was rendered to the strikers to the amount of \$196, and the employers loss amounted to \$10,200.

On the next line following a summary for the state is given the totals for the year 1899, showing that forty-nine strikes took place in nineteen counties. Four thousand, one hundred and ten employes engaged in these strikes for 3,524 employes. Twenty-six strikes were ordered by labor organizations and twenty-three strikes were not ordered by labor organizations. Twenty-six strikes were successful, three partially successful and twenty were failures. One hundred and forty-three establishments were involved and ninety-three of them were closed on account of such strikes. Eight hundred and twenty-six days were lost. The cost to employes on account of loss of wages was \$151,338. Outside financial assistance was rendered the strikers to the amount of \$3,801, and the loss to the employers was \$108,560.

This same system of tabulation has been followed for all the years, included, and can be readily understood.

Foot notes are freely appended to explain data other than schedule called for.

The next table No. 3 contains an additional summary which embraces all the industries in which strikes occurred for the period covered and the number of establishments involved each year, together with the total number of strikes in all establishments, for each year, showing a total of 831 strikes in that number of establishments for the six years and six months.

Strikes occurred in thirty-four counties of the state during this period as follows:

Allamakee.....	2	Lucas.....	2
Appanoose.....	181	Mahaska.....	19
Blackhawk.....	3	Marion.....	4
Boone.....	8	Marshall.....	1
Cedar.....	1	Monroe.....	19
Chickasaw.....	1	Montgomery.....	2
Clayton.....	1	Muscatine.....	13
Clinton.....	1	Palo Alto.....	1
Crawford.....	1	Polk.....	131
Des Moines.....	7	Pottawattomie.....	6
Dubuque.....	14	Poweshiek.....	1
Emmet.....	1	Scott.....	44
Fayette.....	1	Taylor.....	3
Jasper.....	2	Wapello.....	32
Keokuk.....	8	Wayne.....	1
Lee.....	1	Webster.....	25
Linn.....	13	Woodbury....	17

TABLE

Strikes in Iowa by counties, years and industries

Marginal number	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1894.			APPANOOSE
1	Miners and laborers.....	Mystic.....	Against retention of three days' wages as guaranty .....
			MAHASKA
2	Miners .....	Oskaloosa and vicinity .....	For the Oskaloosa scale, 80 cents in summer; \$1.00 in winter, per ton...
			MUSCATINE
3	Conductors and motormen, Street Railway .....	Muscatine....	Against reduction of wages from \$40 to \$35 per month.....
			PALO ALTO
4	Cigar factory employes .....	Emmetsburg.	Against reduction of 20 per cent in wages.....
			POLK
5	Building laborers, teamsters, etc..	Des Moines...	Against reduction of wages.....
6	Miners.....	Des Moines...	For increase of 10c a ton for mining ..
7	Miners.....	Des Moines...	Against reduction from 90 cents to 75 cents per ton for mining.....
1895.			APPANOOSE
1	Miners.....	Centerville....	Against reduction from \$1.00 to 80 cents per ton for mining.....
2	Miners.....	Rathbun.....	Against reduction of wages 10 per ct.
3	Mine employes .....	Cincinnati....	Against discharge of employes, and discrimination .....
			BLACKHAWK
4	Tailors .....	Waterloo .....	For adoption of union rules and union scale.....
5	Tailors .....	Waterloo .....	For adoption of union rules and union scale.....

## No. 1.—PART I.

from July, 1894, to 1900, inclusive.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employers.
			Closed	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
1	Yes....	Yes....	15		Aug. 8.	Aug. 18, 1894.	10	\$ 4,000		\$ 1,000
COUNTY.										
2	Yes....	No....	12		July 1...	July 30, 1894...	20	54,000	\$ 5,000	20,000
COUNTY.										
3	No....	No....	1		Dec. 27.	Jan. 2, 1895...	6	56		150
COUNTY.										
4	Yes....	No....	1		Nov. 21.	Dec. 21, 1894	30	600	105	2,500
COUNTY.										
5	No....	Yes....	1		Aug. 3..	Aug. 5, 1894..	2	600		
6	Yes....	Yes....	14		Nov. 1..	Nov. 15, 1894..	10	7,500		5,000
7	Yes....	Yes....	1		Nov. 12.	Nov. 20, 1894..	8	800		500
COUNTY.										
1	Yes....	No....	1		Feb. 1..	Feb. 11, 1895.	10	1,875		1,000
2	No....	No....	2		Feb. 13.	Feb. 16, 1895.	3	3,600		1,000
3	Yes....	Yes....	1		Sept. 1..	Oct. 16, 1895..	45	2,500		500
COUNTY.										
4	Yes....	No....		1	March 20	April 10, 1895.	21	75		50
5	Yes....	No....		1	April 1..	April 21, 1895.	20	200		250

TABLE

*Strikes in Iowa by counties, years and industries*

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female	Total.	Male.	Female	Total.	
								Male.
<b>1894.</b>								
<b>APPANOOSE</b>								
1	Miners and laborers .....	380	.....	380	380	.....	380	320
<b>MAHASKA</b>								
2	Miners .....	2,400	.....	2,400	1,800	.....	1,800	1,800
<b>MUSCATINE</b>								
3	Conductors and motormen .....	19	1	20	8	.....	8	8
<b>PALO ALTO</b>								
4	Cigar factory employes .....	7	.....	7	7	.....	7	7
<b>POLK</b>								
5	Building laborers, etc. ....	100	.....	100	100	.....	100	100
6	Miners .....	500	.....	500	520	.....	520	520
7	Miners .....	60	.....	60	40	.....	40	40
<b>1895.</b>								
<b>APPANOOSE</b>								
1	Miners .....	125	.....	125	100	.....	100	100
2	Miners .....	600	.....	600	480	.....	480	480
3	Mine employes .....	50	.....	50	15	.....	15	50
<b>BLACK HAWK</b>								
4	Tailors .....	4	1	5	3	.....	3	3
5	Tailors .....	6	2	8	6	.....	6	6

## No 1—PART II.

*from July, 1894, to 1900, inclusive.*

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	Before strike.
										After strike.
<b>COUNTY.</b>										
1	.....	320	320	.....	320	.....	.....	.....	60	60
<b>COUNTY.</b>										
2	.....	1,800	2,280	.....	2,280	.....	.....	.....	60	60
<b>COUNTY.</b>										
3	.....	8	8	.....	8	.....	.....	.....	73%	73%
<b>COUNTY.</b>										
4	.....	7	7	.....	7	4	.....	4	48	60
<b>COUNTY.</b>										
5	.....	100	100	.....	100	.....	.....	.....	60	60
6	.....	580	660	.....	660	.....	.....	.....	60	60
7	.....	40	50	.....	50	.....	.....	.....	60	60
<b>COUNTY.</b>										
1	.....	100	115	.....	115	.....	.....	.....	60	60
2	.....	480	580	.....	580	.....	.....	.....	60	60
3	.....	50	50	.....	50	.....	.....	.....	60	60
<b>COUNTY.</b>										
4	.....	3	3	.....	3	.....	4	4	60	60
5	.....	6	6	2	8	3	5	8	60	60

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1895.—Continued.			
BOONE			
6	Tailors.....	Boone.....	Against 6 per cent reduction in wages and for recognition of union.....
DES MOINES			
7	Woodworking machine hands....	Burlington....	Against reduction of wages.....
DUBUQUE			
8	Machine operators, shirts & overalls	Dubuque.....	Against 15 per cent reduction in wages
9	Machinists, stamping works.....	Dubuque.....	Against 20 per cent reduction in wages
KEOKUK			
10	Mine employes.....	What Cheer..	Against 5 per cent reduction in wages.
11	Mine employes.....	What Cheer..	Against 10 per cent reduction in wages
LEE			
12	Coopers.....	Keokuk.....	For increase of wages and recognition of union.....
LUCAS			
13	Mine employes.....	Lucas.....	Against reduction of wages.....
MAHASKA			
14	Cigar Makers.....	Oskaloosa....	Against a reduction of wages of 50 cents per 1,000.....
15	Cigar Makers.....	Oskaloosa....	To enforce union rules as to number of apprentices.....
MARION			
16	Mine employes.....	Dunreath....	Against 10 per cent reduction in wages
MONTGOMERY			
17	Cigar Makers.....	Red Oak.....	Against reduction of wages and abolition of union rules.....
MUSCATINE			
18	Cigar Makers.....	Muscataine....	Against reduction of wages.....
19	Cigar Makers.....	Muscataine....	Against reduction of wages.....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES—		Loss of employ-ers.
			Closed	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
6	No.....	No.....		1	June 15	June 20, 1895..	5	\$ 100	.....	.....
COUNTY.										
7	Yes.....	No.....	1	.....	Oct. 1...	Dec. 1, 1895..	61	8,000	.....	\$ 500
COUNTY.										
8	No.....	No.....		1	Sept. 1..	Sept. 8, 1895..	7	500	.....	200
9	No.....	No.....		1	May 1..	May 20, 1895..	19	200	.....	100
COUNTY.										
10	No.....	No.....	1	.....	Feb. 1..	Feb. 3, 1895..	2	\$ 50	.....	.....
11	No.....	No.....	1	.....	Mar. 1..	March 20, 1895..	19	200	.....	\$ 100
COUNTY.										
12	Yes.....	No.....		1	May 1..	Jan. 1, 1896..	245	5,600	\$ 300	.....
COUNTY.										
13	No.....	No.....	1	.....	April 1..	April 15, 1895..	14	400	.....	100
COUNTY.										
14	Yes.....	Yes.....		1	Feb. 20..	Feb. 23, 1895..	3	10	.....	.....
15	Yes.....	No.....		1	April 12.	May 30, 1895..	48	250	.....	1,000
COUNTY.										
16	No.....	Yes.....	1	.....	Feb. 1..	Feb. 3, 1895..	2	320	.....	50
COUNTY.										
17	Yes.....	No.....		1	March 21	April 5, 1895..	15	200	15	150
COUNTY.										
18	Yes.....	No.....		1	March 21	July 15, 1895..	116	300	.....	500
19	Yes.....	Yes.....		2	July 18..	July 23, 1895..	5	120	.....	.....

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE STRIKE.			EMPLOYEES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.
1895.—Continued.								
BOON								
6	Tailors.....	11	.....	11	4	.....	4	4
DES MOINES								
7	Wood working machine hands..	393	6	399	112	.....	112	112
DUBUQUE								
8	Machine operators overalls, etc.	40	20	60	6	.....	6	6
9	Machinists stamping works.....	30	200	230	.....	30	30	.....
KEOKUK								
10	Mine employes..	20	.....	20	20	.....	20	20
11	Mine employes. ....	10	.....	10	10	.....	10	10
LEE								
12	Coopers .....	111	.....	111	30	.....	30	30
LUCAS								
13	Mine employes .....	20	.....	20	20	.....	20	20
MAHASKA								
14	Cigar makers .....	5	.....	5	2	.....	2	2
15	Cigar makers.....	12	.....	12	10	.....	10	10
MARION								
16	Mine employes .....	80	.....	80	80	.....	80	80
MONTGOMERY								
17	Cigar makers .....	8	.....	8	4	.....	4	4

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.				WEEKLY WORKING HOURS.	
	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Bro't from other places.	Before strike.	After strike.
COUNTY.											
6		4	4		4	2		2		60	60
COUNTY.											
7		112	393	6	399					60	60
COUNTY.											
8		6	6		6					60	60
9	30		10	100	110					60	60
COUNTY.											
10		20	20		20					60	60
11		10	10		10					60	60
COUNTY.											
12		30	30		30	15		15	15	60	60
COUNTY.											
13		20	20		20					60	60
COUNTY.											
14		2	2		2					48	48
15		10	10		10	5		5	5	48	60
COUNTY.											
16		80	80		80					60	60
COUNTY.											
17		4	4		4	8		8		48	60

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1895.—Continued.			
MONROE			
20	Miners.....	Albia.....	Against reduction from 85 to 70 cents per ton for mining .....
TAYLOR			
21	Mine employees.....	New Market..	For increase of wages .....
22	Mine employees.....	New Market..	Against 15 per cent reduction in wages.....
WAPELLO			
23	Tailors .....	Ottumwa.....	Against 40 per cent reduction in wages.....
24	Coal loaders.....	Eldon.....	Against 10 per cent reduction in wages.....
25	Coal loaders.....	Eldon.....	For 10 per cent increase in wages.....
26	Mine employees.....	Ottumwa.....	For 20 per cent increase in wages.....
WAYNE			
27	Mine employees.....	Confidence...	For 12 per cent increase in wages .....
APPANOOSE AND OTHER			
28	Mine employees.....	a	For increase of wages .....
29	Mine employees.....	b	For increase from 80 cents to \$1.00 per ton for mining .....
(a) Appanoose, Boone, Polk, Webster, Jasper, Wayne, Wapello and Lucas counties. (b) Appanoose, Boone, Webster and Polk counties.			
1896.			
APPANOOSE			
1	Mine employees.....	Diamond ..	Against 10 per cent reduction in wages .....
2	Mine employees.....	Brazil .....	For increase in wages .....
DES MOINES			
3	Peelers and sorters pickle works ..	Burlington ..	Against reduction from 5 to 4c per gallon for peeling and sorting onions .....
JASPER			
4	Miners.....	Colfax .....	Against reduction in wages .....
5	Mine employees.....	Colfax .....	Against reduction in wages .....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES—		Loss of employers.
			Closed	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
20	No.....	No.....	2	.....	July 1...	July 31, 1895..	30	\$ 1,500	.....	.....
COUNTY.										
21	No.....	No.....	1	.....	Feb. 1...	Feb. 10, 1895..	9	450	.....	\$ 100
22	No.....	No.....	1	.....	March 15	March 19, 1895..	4	00	.....	.....
COUNTY.										
23	Yes.....	No.....	1	.....	Feb. 1...	March 1, 1895..	28	400	\$ 108	200
24	No.....	No.....	1	.....	March 10	May 10, 1895..	61	3,000	.....	1,000
25	No.....	Yes.....	1	.....	Sept. 1...	Oct. 2, 1895..	31	1,750	.....	500
26	No.....	Yes.....	1	.....	Nov. 1...	Nov. 4, 1895..	3	30	.....	.....
COUNTY.										
27	No.....	Yes.....	1	.....	Dec. 1...	Dec. 2, 1895..	1	8	.....	.....
COUNTIES GENERAL STRIKE.										
28	Yes.....	No.....	155	.....	March 29	June 10, 1895..	45	390,000	12,000	75,000
29	Yes.....	c	80	.....	Oct. 1...	Nov. 10, 1895..	30	200,000	15,000	70,000
(c) Succeeded in 20 mines; partly succeeded in 60 mines.										
COUNTY.										
1	Yes.....	No.....	1	.....	March 1...	March 8, 1895..	7	\$ 500	.....	.....
2	Yes.....	Yes.....	1	.....	Sept. 1...	Sept. 8, 1895..	7	200	.....	.....
COUNTY.										
3	No.....	No.....	1	.....	Jan. 20...	Jan. 25, 1896..	5	\$ 60	.....	.....
COUNTY.										
4	Yes.....	Yes.....	1	.....	Feb. 19...	Feb. 24, 1896..	5	\$ 6,000	.....	\$ 1,000
5	Yes.....	No.....	1	.....	April 1...	June 15, 1896..	75	90,000	\$ 1,000	7,000

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female	Total.	Male.	Female	Total.	
1895.—Continued.								
MUSCATINE								
18	Cigar makers .....	4	5	9	4	.....	4	4
19	Cigar makers .....	15	.....	15	12	.....	12	12
MONROE								
20	Miners .....	50	.....	50	40	.....	40	40
TAYLOR								
21	Mine employes .....	30	.....	30	30	.....	30	30
22	Mine employes .....	21	.....	21	21	.....	21	21
WAPELLO								
23	Tailors .....	15	3	18	11	.....	11	11
24	Coal loaders .....	40	.....	40	20	.....	20	20
25	Coal loaders .....	45	.....	45	20	.....	20	20
26	Mine employes .....	6	.....	6	6	.....	6	6
WAYNE								
27	Mine employes .....	5	.....	5	5	.....	5	5
APPANOOSE AND OTHER								
28	Mine employes .....	7,500	.....	7,500	6,000	.....	6,000	6,000
29	Mine employes .....	5,600	.....	5,600	4,000	.....	4,000	4,000
1896								
APPANOOSE								
1	Mine employes .....	50	.....	50	50	.....	50	50
2	Mine employes .....	20	.....	20	20	.....	20	20
DES MOINES								
3	Peelers and sorters pickle works .....	5	28	33	25	.....	25	.....

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	After strike.
COUNTY.										
18	.....	4	4	.....	4	4	.....	4	4	48
19	.....	12	12	.....	12	.....	.....	.....	.....	48
COUNTY.										
20	.....	40	45	.....	45	.....	.....	.....	.....	60
COUNTY.										
21	.....	30	30	.....	30	.....	.....	.....	.....	60
22	.....	21	21	.....	21	.....	.....	.....	.....	60
COUNTY.										
23	.....	11	11	.....	11	.....	.....	.....	.....	60
24	.....	20	40	.....	40	.....	.....	.....	.....	60
25	.....	20	40	.....	40	.....	.....	.....	.....	60
26	.....	6	6	.....	6	.....	.....	.....	.....	60
COUNTY.										
27	.....	5	5	.....	5	.....	.....	.....	.....	60
COUNTIES—(GENERAL STRIKE).										
28	.....	6,000	6,500	.....	6,500	500	.....	500	500	60
29	.....	4,000	4,800	.....	4,800	.....	.....	.....	.....	60
COUNTY.										
1	.....	50	50	.....	50	.....	.....	.....	.....	60
2	.....	20	20	.....	20	.....	.....	.....	.....	60
COUNTY.										
3	25	25	.....	25	25	.....	5	5	.....	60

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1896.—Continued.			
KEOKUK			
6	Mine employes.....	Thornburg ..	Against 20 per cent reduction of wages
7	Mine employes.....	What Cheer ..	For increase of wages and reduction in price of powder .....
LUCAS			
8	Mine employes....	Lucas.....	Against 15 per cent reduction of wages
MARION			
9	Miners .....	Swan .....	Against reduction from 80 cents to 70 cents per ton for mining.....
MONROE			
10	Miners.....	Foster .....	For increase of wages from 80 cents to \$1.00 per ton .....
POLK			
11	Miners.....	Des Moines...	Against reduction of wages from 80 to 50 cents per ton for mining.....
12	Mine employes.....	Des Moines ..	Against change to summer scale earlier than usual .....
13	Mine employes.....	Des Moines...	For increase of wages .....
14	Miners.....	Des Moines...	For 10c per ton increase for mining..
15	Mine employes.....	Des Moines...	For fortnightly payment .....
16	Cigar makers.....	Des Moines...	To enforce union rules as to number of apprentices .....
POTTAWATTAMIE			
17	Compositors and pressmen .....	Council Bluffs	For discharge of obnoxious foreman..
SCOTT			
18	Compositors .....	Davenport	For adoption of union scale.....
WAPELLO			
19	Teamsters .....	Ottumwa .....	For increase of wages .....
WEBSTER			
20	Miners.....	Coalville	Against reduction from 70 to 65 cents per ton for mining .....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employees.
			Closed	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
6	No ....	No.....	1 .....		April 15.	June 4, 1896...	50	\$ 3,750 .....		\$ 1,000
7	Yes.....	No.....	5 .....		Aug. 15.	Nov. 1, 1896..	78	40,625 .....		18,000
COUNTY.										
8	No.....	No.....	1 .....		May 1.	May 11, 1896..	10	\$ 350 .....		
COUNTY.										
9	No.....	No.....	1 .....		March 15	March 23, 1896	8	\$ 500 .....		\$ 100
COUNTY.										
10	No.....	No.....	1 .....		Jan. 7..	Jan. 20, 1896..	13	\$ 2,000 .....		\$ 1,500
COUNTY.										
11	Yes....	Yes....	1 .....		Jan. 18..	Jan. 25, 1896..	7	\$ 600 .....		\$ 200
12	Yes....	(a)	8 .....		Feb. 20 ..	April 2, 1896..	44	34,834 .....		14,000
13	Yes....	No.....	1 .....		April 1..	April 15, 1896..	14	6,000 .....		2,000
14	Yes....	Yes....	1 .....		Aug. 24 ..	Oct. 15, 1896..	52	21,000 .....		7,000
15	Yes....	Yes....	20 .....		Oct. 20..	Oct. 30, 1896..	10	16,000 .....		10,000
16	Yes....	Yes....	1 .....		Sept. 4..	Sept. 18, 1896	14	140 \$ 52 .....		100
COUNTY.										
17	Yes....	Yes....	1 .....		Jan. 5....	Jan. 6, 1896..	1	\$ 25 .....		
COUNTY.										
18	Yes....	(b)	4 .....		Feb. 3....	Feb. 8, 1896 ..	3	\$ 1,700 \$ 4,472 .....		\$ 1,000
COUNTY.										
19	Yes....	Yes....	1 .....		Dec. 20..	Dec. 21, 1896 ..	1	\$ 50 .....		
COUNTY.										
20	No.....	No.....	1 .....		Oct. 1....	Oct. 15, 1896..	14	\$ 1,500 .....		\$ 500

a. Succeeded in one mine, failed in seven mines.  
 b. Succeeded in one establishment, failed in three.

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female.	Total.	Male.	Female.	Total.	
								Male
1896—Continued.								
JASPER								
4	Miners .....	800	.....	800	720	.....	720	720
5	Mine employes.....	800	.....	800	800	.....	800	800
KEOKUK								
6	Mine employes.....	50	.....	50	50	.....	50	50
7	Mine employes.....	285	.....	285	285	.....	285	285
LUCAS								
8	Mine employes.....	35	.....	35	35	.....	35	35
MARION								
9	Miners .....	45	.....	45	30	.....	30	30
MONROE								
10	Miners .....	100	.....	100	80	.....	80	80
POLK								
11	Miners .....	60	.....	60	60	.....	60	60
12	Mine employes.....	655	.....	655	600	.....	600	655
13	Mine employes.....	300	.....	300	300	.....	300	300
14	Miners .....	300	.....	300	260	.....	260	260
15	Mine employes .....	800	.....	800	800	.....	800	800
16	Cigar makers .....	9	.....	9	7	.....	7	7
POTTAWATTAMIE								
17	Compositors and pressmen.....	48	2	50	12	.....	12	12
SCOTT								
18	Compositors .....	80	6	86	18	3	21	18
WAPELLO								
19	Teamsters .....	22	.....	22	22	.....	22	22

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	After strike
COUNTY.										
4	.....	720	800	.....	800	.....	.....	.....	.....	60
5	.....	800	800	.....	800	200	.....	200	200	60
COUNTY.										
6	.....	50	50	.....	50	.....	.....	.....	.....	60
7	.....	285	285	.....	285	85	.....	85	85	60
COUNTY.										
8	.....	35	35	.....	35	.....	.....	.....	.....	60
COUNTY.										
9	.....	30	39	.....	39	.....	.....	.....	.....	60
COUNTY.										
10	.....	80	90	.....	90	.....	.....	.....	.....	60
COUNTY.										
11	.....	60	60	.....	60	.....	.....	.....	.....	60
12	.....	655	655	.....	655	.....	.....	.....	.....	60
13	.....	300	300	.....	300	.....	.....	.....	.....	60
14	.....	260	260	.....	260	.....	.....	.....	.....	60
15	.....	800	800	.....	800	.....	.....	.....	.....	60
16	.....	7	7	.....	7	.....	.....	.....	.....	48
COUNTY.										
17	.....	12	12	.....	12	1	.....	1	.....	60
COUNTY.										
18	3	21	18	3	21	12	1	13	13	54
COUNTY.										
19	.....	22	22	.....	22	.....	.....	.....	.....	60

TABLE No. 1—

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1897.			APPANOOSE
1	Mine employes.....	Centerville ...	Against change from fortnightly to monthly payments.....
2	Miners.....	Mystic .....	For increase from 50 to 70 cents a ton for mining.....
3	Miners.....	Lost Creek...	Against 15 per cent reduction in wages.....
4	Miners.....	14 mines in county.....	For restoration of union scale and annual contract.....
5	Mine employes.....	Mystic .....	For increase of wages.....
DES MOINES			
6	Telephone line men and laborers..	Burlington ...	For payment of wages overdue.....
DUBUQUE			
7	Machine operators, overall factory.	Dubuque .....	Against 10 per cent reduction in wages
LINN			
8	Chocolate dippers, candy factory..	Cedar Rapids.	For 8 per cent increase of wages and change from piece to day work.....
MARION			
9	Miners.....	Flagler .....	Against reduction of wages.....
MONROE			
10	Mine employes.....	Avery.....	Against reduction of wages.....
11	Miners.....	Cedar Mines ..	Against reduction of wages.....
12	Miners .....	Keb and Chisholm.....	Against reduction from 70 to 65 cents per ton for mining.....
13	Miners and laborers.....	Chisholm .....	For increase from 65 to 90 cents per ton for mining and for \$1.45 instead of \$1.25 for laborers.....
MUSCATINE			
14	Cigarmakers .....	Muscatine ...	To enforce union rules as to number of apprentices allowed.....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employment.
			Closed.	Not closed.		Date.	Days to date.	Wage oss.	Assistance.	
COUNTY.										
1	Yes....	No....	1	.....	Feb. 1 ..	Feb. 16, 1897..	15	\$ 200	.....	\$ 100
2	Yes....	Yes....	16	.....	June 7..	Aug. 7, 1897..	61	13,000	.....	
3	Yes....	No....	1	.....	July 1..	July 7, 1897..	6	2,500	.....	500
4	Yes....	Partly.	14	.....	Aug. 1..	Aug. 15, 1897..	14	4,000	.....	2,000
5	Yes....	Yes....	20	.....	Oct. 1..	Oct. 11, 1897..	10	6,000	.....	4,000
COUNTY.										
6	No....	Yes....		1	Aug. 10.	Sept. 1, 1897..	22	1,000	.....	
COUNTY.										
7	No....	Yes....		1	June 30..	July 7, 1897..	7	1,200	.....	200
COUNTY.										
8	No....	Yes....		1	Nov. 20..	Nov. 28, 1897..	8	50	.....	25
COUNTY.										
9	Yes....	No....	1	.....	Apr. 1..	Sept. 1, 1897..	153	5,000	.....	1,500
COUNTY.										
10	Yes....	Yes....	5	.....	Apr. 1..	Apr. 10, 1897..	9	5,000	.....	1,000
11	Yes....	Yes....	1	.....	Apr. 1..	May 1, 1897..	30	5,000	.....	1,000
12	Yes....	No....	3	.....	Apr. 1..	July 30, 1897..	120	120,000	1,500	30,000
13	Yes....	Yes....	1	.....	Oct. 1..	Oct. 16, 1897..	15	2,000	.....	1,000
COUNTY.										
14	Yes....	No....		1	Feb. 15.	July 3, 1897..	138	\$ 120	\$ 65	\$ 200

TABLE No 1

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE STRIKE.			EMPLOYEES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.	
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	
1896—Continued.									WEBSTER
20	Miners.....	90		90	70		70	70	
1897.									APPANOOSE
1	Mine employes.....	10		10	10		10	10	
2	Miners.....	220		220	160		160	160	
3	Miners.....	250		250	200		200	200	
4	Miners.....	500		500	420		420	420	
5	Mine employes.....	400		400	400		400	400	
									DES MOINES
6	Telephone linemen, etc., ..	100		100	36		36	36	
									DUBUQUE
7	Machine operators, overalls factory.....	100	30	400		200	200		
									LINN
8	Chocolate dippers, etc.	15	45	60		30	30		
									MARION
9	Miners.....	40		40	30		30	30	
									MONROE
10	Mine employes.....	400		400	400		400	400	
11	Miners.....	100		100	85		85	85	
12	Miners.....	600		600	525		525	525	
13	Miners and laborers.....	100		100	95		95	95	
									MUSCATINE
14	Cigar makers.....	4		4	2		2	2	

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.				WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	Before strike.	After strike.
COUNTY.											
20		70	84		84					60	60
COUNTY.											
1		10	10		10					60	60
2		160	180		180					60	60
3		200	235		235					60	60
4		420	500		500					60	60
5		400	400		400					60	60
COUNTY.											
6		36	36		36					60	60
COUNTY.											
7	200	200		200	200					60	60
COUNTY.											
8	30	30		30	30		10	10		60	60
COUNTY.											
9		30	40		40					60	60
COUNTY.											
10		400	400		400					60	60
11		85	100		100					60	60
12		525	575		575	200		200	200	60	60
13		95	95		95					60	60
COUNTY.											
14		2	2		2	2		2	2	48	60

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1897—Continued.			
POLK			
15	Mine employes.....	Des Moines...	Against reduction of wages.....
16	Mine employes.....	Des Moines...	For increase of wages.....
17	Miners.....	Des Moines...	Against reduction from 80 to 50 cents per ton for mining.....
18	Miners.....	Polk county, 29 mines...	For increase from 80 and 90 cents to \$1.00 per ton for mining.....
SCOTT			
19	Compositors and pressmen.....	Davenport....	For restoration of wages.....
20	Winders, in broom factory.....	Davenport....	For increase of wages from 25 to 26 and 27 cents per dozen.....
TAYLOR			
21	Mine employes.....	New Market..	Against reduction of wages.....
WAPELLO			
22	Miners.....	Ottumwa.....	Against change to summer scale one month too early.....
23	Mine employes.....	Eldon.....	For increase of 15 per cent in wages.....
WEBSTER			
24	Mine employes.....	Webster Co..	Against reduction of wages of 20 cents per load.....
25	Mine employes.....	Lehigh.....	For increase of wages.....
1898.			
APPANOOSE			
1	Miners.....	14 mines in county.....	For increase from 70 and 80 cents to 90 cents per ton for mining.....
2	Miners.....	Jerome.....	Against excessive charges for black-smithing.....
BLACKHAWK			
3	Molders, gasoline engine factory..	Waterloo.....	Against change from day to piece work.....
DUBUQUE			
4	Machine operators overall and shirt factory.....	Dubuque.....	For adoption of new scale.....
5	Riveters, shipyards.....	Dubuque.....	For 15 per cent increase of wages.....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employment.
			Closed.	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
15	Yes....	Yes....	4	.....	Jan. 19..	Feb. 11, 1897..	23	\$ 1,200	.....	\$ 1,000
16	Yes....	No....	5	.....	Apr. 8..	April 20, 1897..	12	7,500	.....	3,000
17	Yes....	Yes....	1	.....	Feb. 1.	Feb. 11, 1897..	10	600	.....	1,000
18	Yes....	No....	20	.....	Aug. 25.	Sept. 30, 1897..	15	30,000	\$ 2,000	18,000
COUNTY.										
19	Yes....	No....	1	.....	March 24	March 31, 1897..	7	625	342	1,000
20	No....	No....	1	.....	June 4.	June 11, 1897..	7	75	.....	.....
COUNTY.										
21	Yes....	No....	1	.....	May 1..	May 13, 1897..	12	500	.....	.....
COUNTY.										
22	Yes....	No....	3	.....	Mar. 1..	April 1, 1897..	31	2,500	.....	800
23	Yes....	Yes....	1	.....	Sept. 1..	Oct. 16, 1897..	45	2,500	.....	500
COUNTY.										
24	Yes....	Yes....	2	.....	Jan. 28..	Feb. 3, 1897..	6	100	.....	40
25	Yes....	No....	3	.....	Sept. 1..	Sept. 8, 1897..	7	8,000	.....	40,000
COUNTY.										
1	Yes....	Yes....	14	.....	Sept. 1..	Oct. 10, 1898..	35	\$27,500	\$ 5,000	\$ 15,000
2	Yes....	Yes....	1	.....	Dec. 20.	Dec. 30, 1898..	10	1,350	.....	500
COUNTY.										
3	No....	No....	1	.....	Oct. 1..	Oct. 8, 1898..	7	400	.....	200
COUNTY.										
4	No....	Yes....	1	.....	April 1..	April 20, 1898..	19	800	.....	4,000
5	No....	No....	1	.....	June 6..	June 9, 1898..	3	300	.....	100

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.	
		Male.	Female	Total.	Male.	Female	Total.	Male.	
1897—Continued.									POLK
15	Mine employes .....	100	.....	100	100	.....	100	100	
16	Mine employes .....	580	.....	580	580	.....	580	580	
17	Miners .....	40	.....	40	30	.....	30	30	
18	Miners .....	1,553	.....	1,553	1,151	.....	1,151	1,151	
									SCOTT
19	Compositors and pressmen .....	14	2	16	5	1	6	5	
20	Winders in broom factory .....	34	6	40	4	.....	4	4	
									TAYLOR
21	Mine employes .....	30	.....	30	30	.....	30	30	
									WAPELLO
22	Miners .....	125	.....	125	90	.....	90	90	
23	Mine employes .....	40	.....	40	40	.....	40	40	
									WEBSTER
24	Mine employes.....	20	.....	20	5	.....	5	20	
25	Mine employes.....	400	.....	400	400	.....	400	400	
1898.									APPANOOSE
1	Miners .....	450	.....	450	400	.....	400	400	
2	Miners .....	90	.....	90	80	.....	80	80	
									BLACKHAWK
3	Molders gasoline engines works .....	90	.....	90	25	.....	25	25	
									DUBUQUE
4	Machine operators, overall fact'y .....	50	90	140	.....	40	40	.....	
5	Riveters, shipyards.....	400	.....	400	25	.....	25	.....	

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.	
	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Bro't from other places.	After strike.
COUNTY.										
15	.....	100	100	.....	100	.....	.....	.....	60	60
16	.....	580	580	.....	580	.....	.....	.....	54	54
17	.....	30	35	.....	35	.....	.....	.....	60	60
18	.....	1,150	1,350	.....	1,350	100	.....	100	(a)	(a)
COUNTY.										
19	1	6	5	1	6	5	1	6	60	60
20	.....	4	4	.....	4	.....	.....	4	60	60
COUNTY.										
21	.....	30	30	.....	30	.....	.....	.....	60	60
(a) Fifty-four hours in two mines; sixty hours in twenty-seven mines.										
COUNTY.										
22	.....	90	105	.....	105	.....	.....	.....	60	60
23	.....	40	40	.....	40	.....	.....	.....	60	60
COUNTY.										
24	.....	20	20	.....	20	.....	.....	.....	60	60
25	.....	400	400	.....	400	100	.....	100	60	60
COUNTY.										
1	.....	400	450	.....	450	.....	.....	.....	54	54
2	.....	80	90	.....	90	.....	.....	.....	54	54
COUNTY.										
3	.....	25	25	.....	25	19	.....	19	19	60
COUNTY.										
4	40	40	40	60	100	.....	.....	.....	60	60
5	.....	25	100	.....	100	25	.....	25	60	60

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1898—Continued.			LINN
6	Corn cutters, canning factory.....	Cedar Rapids	For 10 per cent increase in wages...
7	Labellers, oat meal mill .....	Cedar Rapids	For increase of wages for putting on new style label.....
8	Chocolate dippers, candy factory..	Cedar Rapids.	For discharge of objectionable forewoman.....
			MONROE
9	Miners.....	Albia .....	For increase from 70 to 80 cents per ton for mining .....
			POLK
10	Tailors.....	Des Moines..	For 6 per cent increase of wages....
11	Mine employes .....	Des Moines..	Against reduction of wages .....
			POTTAWATTAMIE
12	Compositors, pressmen, etc.,.....	Council Bluffs	For adoption of union scale and reduction of hours from 10 to 9½ per day.....
			WAPELLO
13	Miners.....	Eldon.....	For reduction in price of powder .....
14	Coopers.....	Ottumwa .....	Against reduction of wages .....
15	Cigarmakers .....	Ottumwa .....	Against 15 per cent reduction of wages .....
			WEBSTER
16	Mine employes.....	Lehigh .....	For increase from 55 to 60 cents per ton for mining .....
1899.			APPANOOSE
1	Coal mine, team drivers.....	Centerville, Brazil and Mystic .....	For 10 cents a day increase of wages..
2	Miners and laborers.....	Mystic .....	For increase from 85 cents to \$1.00 per ton for mining .....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES <sup>1</sup> —		Loss of employers.
			Closed	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
6	No. ..	No. ....	.....	1	Aug. 10.	Aug. 12, 1898	2	\$ 50	.....	\$ 25
7	No. ..	Yes ..	.....	1	Oct. 22	Oct. 29, 1898..	7	200	.....	.....
8	No	Yes ..	.....	1	Nov. 1	Nov. 2, 1898..	1	45	.....	.....
COUNTY.										
9	Yes	No. ....	7	.....	Oct. 1...	(a)	(a)	3,500	.....	(a)
(a) Establishments closed permanently—coal unprofitably worked.										
COUNTY.										
10	No. ..	No. ....	.....	1	April 12	April 14, 1898	2	25	...	2,000
11	Yes	No	.....	1	April 4.	April 18, 1898	14	6,000	.....	.....
COUNTY.										
12	Yes	Yes ..	.....	1	Nov. 21.	Nov. 22, 1898	1	35	.....	.....
COUNTY.										
13	Yes	Yes ..	1	.....	Oct. 1.	Oct. 17, 1898	16	600	.....	200
14	Yes	No. ....	.....	1	April 7.	June 7, 1898.	61	1,000	.....	450
15	Yes	No.	.....	1	Feb. 7.	April 30, 1898	83	1,200	\$ 236	500
COUNTY.										
16	Yes	Partly	1	.....	Sept. 1	Sept. 22, 1898..	21	1,000	.....	1,500
(a) Establishments closed permanently, coal unprofitably worked.										
COUNTY.										
1	No. ....	Yes....	15	.....	Mar. 14.	Mar. 17, 1899..	3	\$5,012	\$ 775	.....
2	Yes....	No ..	6	8	Oct. 1...	Oct. 8, 1899....	7	3,780	.....	\$1,290

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE STRIKE.			EMPLOYEES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female	Total.	Male.	Female	Total.	
1898—Continued.								
LINN								
6 7 8	Corn cutters, canning factory .. Labellers, oat meal mill..... Chocolate dippers, candy fact'y	75 25 25	150 225 60	225 450 85	12 ..... .....	100 45 .....	12 100 45	12 ..... .....
MONROE								
9	Miners .....	130	.....	130	100	.....	100	100
POLK								
10 11	Tailors .....	8	.....	.....	6	.....	6	6
	Mine employes.....	300	.....	300	300	.....	300	300
POTTAWATTAMIE								
12	Compositors, pressmen, etc.....	43	4	47	17	.....	17	17
WAPELLO								
13 14 15	Miners .....	45	.....	45	35	.....	35	35
	Coopers .....	18	.....	18	8	.....	8	8
	Cigar makers .....	18	.....	18	15	.....	15	15
WEBSTER								
16	Mine employes.....	40	.....	40	40	.....	40	40
1899.								
APPANOOSE								
1 2	Team drivers, coal mine ..	770	.....	770	62	.....	62	62
	Miners and laborers .....	350	.....	350	280	.....	280	280
BOONE								
3 4 5 6	Mine employes .....	275	.....	275	6	.....	6	210
	Compositors .....	3	5	8	.....	3	3	.....
	Railroad laborers .....	220	.....	220	101	.....	101	101
	Machinists .....	123	.....	123	29	.....	29	29

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.	
	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Bro't from other places.	Before strike.
COUNTY.										
6	.....	12	12	.....	12	12	.....	12	.....	60
8	100	100	100	.....	100	100	.....	100	.....	60
9	45	45	45	45	45	1	1	1	1	60
COUNTY.										
9	.....	100	130	.....	130	.....	.....	.....	.....	60 (a)
COUNTY.										
10	.....	6	6	.....	6	.....	.....	.....	.....	60
11	300	300	300	.....	300	.....	.....	.....	.....	60
COUNTY.										
12	.....	17	17	.....	17	.....	.....	.....	.....	60
	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
COUNTY.										
13	.....	35	45	.....	45	.....	.....	.....	.....	60
14	.....	8	8	.....	8	4	.....	4	.....	60
15	.....	15	15	.....	15	15	.....	15	10	48
COUNTY.										
16	.....	40	40	.....	40	.....	.....	.....	.....	60
a. Establishments closed permanently, coal unprofitably worked.										
COUNTY.										
1	.....	62	716	.....	716	.....	.....	.....	.....	60
2	.....	280	315	.....	315	.....	.....	.....	.....	48
COUNTY.										
3	.....	210	210	.....	210	100	.....	100	100	60
4	3	3	3	3	3	2	2	2	2	60
5	.....	101	101	.....	101	9	.....	9	.....	59
6	.....	29	29	.....	29	3	.....	3	.....	59

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
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## 1899—Continued.

## BOONE

3	Mine employes.....	Fraser.....	For increase of wages, reduction of hours, recognition of union, and reinstatement of discharged employes.....
4	Compositors.....	Boone.....	For increase of wages (100 per cent) f.
5	Railroad laborers.....	Boone.....	For 15 per cent increase in wages.....
6	Machinists.....	Boone.....	For increased wages from 26 to 27½ cents per hour.....

(+) Compositors receiving \$2.00 per week as wages.

## CEDAR

7	Brickmakers.....	Springdale....	For 10 per cent increase in wages....
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## CENTRAL IOWA

8	Miners and mine employes.....	(a).....	Against 12½ per cent reduction in wages and for reduction of hours from 9 to 8 per day.....
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(a) Polk, Jasper, Story, Warren, Madison, Dallas.

## DES MOINES

9	Lumber yard employes.....	Burlington....	For payment of over due wages.....
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## DUBUQUE

10	Machine operators overall factory..	Dubuque.....	For readjustment of prices on account of installation of new machinery....
11	Coopers.....	Dubuque.....	For 10 per cent increase in wages....
12	Coffin trimmers.....	Dubuque.....	Against change from day to piece work.....

## FAYETTE

13	Machinists.....	Oelwein.....	For reinstatement of discharged committeemen.....
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## LINN

14	Cookers, menders and tappers, canning factory.....	Cedar Rapids.	Against retention of part of wages as a guarantee against strikes.....
15	Railroad switchmen.....	Cedar Rapids.	For 5 per cent increase in wages.....

## PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employes.
			Closed.	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	

## COUNTY.

3	No.....	Yes.....		1	June 9..	Sept. 15, 1899..	98	\$23,218		\$ 8,000
4	No.....	No.....		1	Aug. 14.	Aug. 17, 1899..	3	52		
5	No.....	No.....		2	May 13..	May 15, 1899..	2	203		
6	No.....	No.....		1	Nov. 7..	Nov. 10, 1899..	3	234		

## COUNTY.

7	No.....	No.....		1	July 21..	July 24, 1899..	3	260		
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## SEVERAL COUNTIES.

8	(a) No.	Yes.....	25	1	April 1..	June 28, 1899..	88	54,640	\$ 915	46,650
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(a) This strike was ordered or agreed upon at mass meetings of miners, organization followed, and to that action belongs the credit of the successful result.

## COUNTY.

9	Yes.....	Yes.....	1		July 10..	Aug. 1, 1899..	21	4,500		500
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## COUNTY.

10	No.....	Yes.....		1	June 25..	July 5, 1899....	10	300		
11	Yes.....	Yes.....		3	May 2..	May 10, 1899..	8	300		150
12	No.....	No.....		1	June 10..	June 24, 1899..	14	500		100

## COUNTY.

13	No.....	Yes.....		1	Oct. 13..	Oct. 16, 1899..	3	235		
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## COUNTY.

14	No.....	Yes.....		1	Sept. 7..	Sept. 12, 1899..	5	500		400
15	No.....	No.....		1	Oct. 16..	Oct. 23, 1899..	7	465		

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE STRIKE.			EMPLOYEES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female	Total.	Male.	Female	Total.	
1899—Continued.								
CEDAR								
7	Bricklayers .....	40	..	40	13	..	13	13
CENTRAL IOWA—								
8	Miners and mine employees....	1,150	.....	1,150	1,040	..	1,040	1,040
DES MOINES								
9	Lumber yard employes .....	200	.....	200	200	.....	200	200
DUBUQUE								
10	Machine operators, overall Pct'y	100	300	40	..	30	30	..
11	Coopers .....	100	..	100	18	.....	18	18
12	Cottin trimmers .....	100	25	125	20	.....	20	20
FAYETTE								
13	Machinists.....	540	2	542	3	.....	3	45
LINN								
14	Cookers, etc., canning factory.	60	180	240	35	..	35	35
15	Railroad switchmen .....	487	.....	487	30	.....	30	25
MAHASKA								
16	Mine Employes .....	256	.....	256	64	...	64	256
MARSHALL								
17	Railroad laborers .....	200	.....	200	200	.....	200	200
MONROE								
18	Team drivers, coal mine .....	450	.....	450	41	.....	41	41

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.		
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	Before strike.	After strike
COUNTY											
7	.....	13	13	.....	13	5	.....	5	.....	60	60
SEVERAL COUNTIES.											
8	.....	1,040	1,100	.....	1,100	100	.....	100	100	54	48
COUNTY.											
9	.....	200	200	.....	200	..	.....	.....	.....	60	60
COUNTY.											
10	30	30	.....	30	30	.....	.....	.....	.....	60	60
11	.....	15	15	..	15	.....	.....	.....	.....	60	60
12	.....	20	20	..	20	.....	25	25	..	60	60
COUNTY.											
13	.....	45	45	.....	45	.....	.....	.....	.....	50	50
COUNTY.											
14	.....	35	40	140	180	.....	.....	.....	.....	60	60
15	.....	25	25	.....	25	.....	.....	.....	.....	77	77
COUNTY.											
16	.....	256	256	..	256	.....	.....	.....	.....	48	48
COUNTY.											
17	...	200	200	.....	200	.....	.....	.....	..	60	60
COUNTY.											
18	.....	41	415	..	415	.....	.....	.....	.....	48	48

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1899—Continued.			
MAHASKA			
16	Mine employes.....	Oskaloosa ....	For 12.5 per cent increase of wages..
MARSHALL			
17	Railroad laborers.....	Quarry.....	For increased wages from \$1.75 to \$2.00 per day .....
MONROE			
18	Team drivers, coal mines.....	Hiteman.....	For increased wages from \$2.00 to \$2.10 per day .....
MONTGOMERY			
19	Cigar makers.....	Red Oak.....	For \$1 per 1,000 increase in scale price
MUSCATINE			
20	Blank button cutters.....	Muscatine ....	For 20 per cent increased wages and against change in system of doing work.....
21	Button blank cutters.....	Muscatine ....	Against reduction of wages.....
22	Button factory employes.....	Muscatine ....	Against theft of unweighed button blanks and consequent loss of pay.
23	Button blank cutters.....	Muscatine ....	Against reduction of wages.....
POLK			
24	Plumbers, steam and gas fitters...	Des Moines...	For reduction of hours from nine to eight per day and a minimum rate of \$3 per day.....
25	Carpenters.....	Des Moines...	For increased wages from 25 to 30 cents per hour.....
26	Drivers and mine laborers.....	Marquissville...	For increased wages from \$2 to \$2.10 per day.....
27	Miners, drivers and laborers.....	Berwick.....	For 12.5 per cent increase of wages..
28	Telephone inspectors and line men	Des Moines...	For recognition of union and against employment of non-union men.....
29	Cigar makers.....	Des Moines...	For adoption of union scale and against illegal use of cigar makers union label.....
POTTAWATTAMIE			
30	Plumbers.....	Council Bluffs	For recognition of union and yearly contract .....
31	Cigar makers.....	Council Bluffs	Against reduction of \$2 per 1,000 for making .....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES <sup>1</sup> —		Loss of employment <sup>2</sup> .
			Closed	Not closed.		Date.	Days to date.	Wage oss.	Assistance.	
COUNTY.										
16	No .....	Yes....	1 .....		Oct. 25..	Nov. 24, 1899..	10	\$5,112 .....		\$ 1,000
COUNTY.										
17	No .....	Yes....	1 .....		Aug. 11..	Aug. 12, 1899..	1	350 .....		50
COUNTY.										
18	No .....	No .....	2 .....		Nov. 14..	Nov. 16, 1899..	2	1,800 .....		500
COUNTY.										
19	Yes....	No .....		1	Jan. 8	Feb. 1, 1899	24	250	\$ 100	500
COUNTY.										
20	No .....	No .....		1	July 11	July 18, 1899	7	700 .....		100
21	Yes....	No .....		1	Aug. 10	Aug. 31, 1899	21	300 .....		75
22	Yes....	No .....	1 .....		Aug. 18	(a) .....	(a)...	(b)...		(b) .....
23	Yes....	No .....		1	Dec. 18	Dec. 21, 1899	3	1,800 .....		50
(a) Establishment closed permanently. (b) Not reported.										
COUNTY.										
24	Yes....	Partly.	9 .....		April 8	April 15, 1899	7	500 .....		
25	Yes....	Yes....	1 .....		June 19	June 21, 1899	2	95 .....		
26	Yes....	Yes....	1 .....		Oct. 1	Oct. 2, 1899	1	470 .....		100
27	No .....	Yes....	1 .....		Nov. 1	Nov. 3, 1899	2	452 .....		250
28	Yes....	Yes....		1	Nov. 24	Nov. 28, 1899	4	120 .....		1,000
29	Yes....	No .....		1	Jan. 8	Feb. 1, 1899	24	250	100	500
COUNTY.										
30	Yes....	Yes....		3	Nov. 18	Dec. 11, 1899	23	946 .....		
31	Yes....	No .....		1	Mch. 17	Mch. 24, 1899	7	135	45	1,000

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female.	Total.	Male.	Female.	Total.	
19	Cigar makers.....	8		8	8		8	8

1899—Continued.

MONTGOMERY

20	Blank button, cutters.....	85	50	135	70		70	70
21	Button blank, cutters.....	40		40	6		6	6
22	Button factory, employes.....	10		10	10		10	10
23	Button blank, cutters.....	60	64	124	12		12	52

MUSCATINE

24	Plumbers and steam fitters.....	35		35	35		35	35
25	Carpenters.....	20		20	6		6	6
26	Drivers and mine laborers.....	250		250	25		25	25
27	Miners and laborers.....	120		120	97		97	112
28	Telephone linemen, etc.....	15	14	29	9		9	9
29	Cigar makers.....	8	5	13	5		5	5

POLK

30	Plumbers.....	37		37	7		7	7
31	Cigar makers.....	10		10	5		5	3

POTTAWATTAMIE

32	Sewers and binders, broom works.....	40	6	46	18		18	18
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SCOTT

33	Team drivers, mine employes.....	125		125	12		12	125
34	Mine employes.....	125		125	125		125	125
35	Miners and drivers.....	94		94	20		20	81
36	Miners.....	79		79	55		55	55
37	Hotel waiters.....	6	8	14	4		4	4
38	Cigar makers and strippers.....	54	163	217	40	130	170	32
39	Beer bottles.....	20		20	15		15	15

WAPELLO

## PART II—CONTINUED.

Marginal number.	* NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.				WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	Before strike.	After strike.
COUNTY.											
19	.....	8	8	.....	8	5	.....	5	5	60	60
COUNTY.											
20	.....	70	70	.....	70	.....	.....	.....	.....	60	60
21	.....	6	6	.....	6	6	.....	6	.....	60	60
22	.....	10	10	.....	10	.....	.....	.....	.....	60	(b)
23	....	52	60	....	60	45	.....	45	.....	60	60
(b) Establishment permanently closed.											
COUNTY.											
24	.....	35	35	.....	35	.....	.....	.....	.....	54	48
25	.....	6	20	.....	20	.....	.....	.....	.....	48	48
26	.....	25	235	.....	235	.....	.....	.....	.....	46	46
27	.....	112	112	.....	112	.....	.....	.....	.....	48	38
28	.....	9	9	.....	9	4	.....	4	.....	60	60
29	.....	5	5	.....	5	5	.....	5	.....	48	54
COUNTY.											
30	.....	7	13	.....	13	.....	.....	.....	.....	48	48
31	.....	3	3	.....	3	3	.....	3	.....	48	60
COUNTY.											
32	...	18	30	3	33	17	...	17	.....	60	60
COUNTY.											
33	.....	125	125	.....	125	.....	.....	.....	.....	48	48
34	.....	125	125	.....	125	1	.....	1	.....	48	48
35	.....	81	81	.....	81	.....	.....	.....	.....	48	48
36	.....	55	79	.....	79	33	.....	33	.....	48	48
37	4	4	.....	4	4	4	.....	4	.....	70	70
38	44	70	32	44	70	.....	.....	.....	.....	60	60
39	.....	15	15	.....	15	.....	.....	.....	.....	60	60

TABLE No. 1—

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1899—Continued.			SCOTT
32	Sewers and binders in broom factory	Davenport ....	For adoption of union scale and union recognition.....
			WAPELLO
33	Team drivers and mine employes..	Ottumwa.....	Against compelling drivers to pay for oil they used.....
34	Mine employes.....	Ottumwa.....	Against employing non-union men...
35	Miners and drivers.....	Ottumwa.....	For 25 per cent increase of wages...
36	Miners.....	Ottumwa.....	Against non-union teamsters hauling coal.....
37	Hotel waiters.....	Ottumwa.....	For discharge of colored head waiter and against obnoxious rules.....
38	Cigar makers and strippers.....	Ottumwa.....	For change from day to piece work..
39	Beer bottlers.....	Ottumwa.....	For 50 per cent increased wages.....
			WEBSTER
40	Mine employes.....	Coalville.....	For pay for extra work.....
41	Mine employes.....	Lehigh.....	For 12.5 per cent increase in wages and hours reduced from nine to eight per day.....
42	Mine employes.....	Coalville.....	For recognition of union.....
43	Mine employes.....	Coalville and Kalo.....	For reduction of hours from nine to eight per day.....
44	Mine employes.....	Coalville and Kalo.....	For 12.5 per cent increase of wages..
			WOODBURY
45	Stage hands of theatre.....	Sioux City...	For 10 per cent increase of wages...
46	Plumbers, gas and steam fitters...	Sioux City...	For increase of wages and reduction of hours from 9 to 8 per day....
47	Harness makers.....	Sioux City...	For 25 per cent increase of wages...
48	Stereotypers.....	Sioux City...	For 10 per cent increase of wages...
49	Breakers and laborers in starch wks.	Sioux City...	For 20 per cent increase of wages and against change in system of doing work.....
1900.			ALLAMAKEE
1	Button blank cutters.....	Lansing .....	Against 10 per cent reduction of wages

## —PART I—CONTINUED

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employees.
			Closed.	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
32	Yes....	No .....		1	March 6	April 5, 1899	30	\$1,600	\$ 450	\$ 5,000
COUNTY.										
23	Yes....	(c) No.	1		June 3	June 6, 1899	3	500		100
34	No....	Yes....	1		June 19	June 22, 1899	3	600		100
35	Yes....	No....	3		Oct. 15	Oct. 22, 1899	7	1,095		1,250
36	Yes....	(d) .....	3		Dec. 9	Dec. 30, 1899	16	1,695		690
37	No....	No....		1	Aug. 29	Aug. 31, 1899	2	25		
38	No....	No....	6	3	Sept. 23	Oct. 14, 1899	21	3,600	1,100	6,000
39	Yes....	Yes....		1	Aug. 1	Aug. 15, 1899	14	300	20	500
(c) Were granted free oil one month.										
(d) Succeeded in two mines; failed in one mine.										
COUNTY.										
40	No....	e)Partly	1		Aug. 22	Sept. 6, 1899	15	264		100
41	Yes	Yes ..	4		Sept. 1	Oct. 5, 1899	34	15,000	100	10,000
42	Yes....	Yes	1		Sept. 16	Sept. 23, 1899	7	258		25
43	Yes....	Yes....	6		Oct. 1	Oct. 13, 1899	12	3,288		1,300
44	No....	Yes....	4		Dec. 12	April 2, 1900	111	12,880		11,300
(e) But hours were reduced, as a partial concession, which was satisfactory.										
COUNTY.										
45	Yes....	Yes		1	Mar. 4	Apr. 27, 1899	54	\$ 120		\$ 8,000
46	Yes....	Yes		7	June 10	July 3, 1899	14	1,320		1,000
47	Yes....	Yes		1	June 15	Aug. 12, 1899	58	524	\$ 196	1,000
48	Yes....	Yes ..		2	May 25	May 30, 1899	5	60		100
49	No....	No..		1	July 11	July 18, 1899	7	700		100
COUNTY.										
1	Yes	No ....	2		June 9	June 11, 1900	2	\$ 126		\$ 35

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female.	Total.	Male.	Female.	Total.	

## 1899—Continued.

## WEBSTER

40	Mine employees.....	21		21	20		20	20
41	Mine employees.....	275		275	252		252	252
42	Mine employees.....	21		21	20		20	20
43	Mine employees.....	139		139	131		131	131
44	Mine employees.....	147		147	123		123	129

## WOODBURY

45	Stage hands of theatre.....	20		20	20		20	20
46	Plumbers and steam fitters.....	60	4	64	42		42	42
47	Harness makers.....	12		12	9		9	7
48	Stereotypers.....	51	10	61	7		7	7
49	Breakers and laborers.....	61	35	96		11	11	14

## 1900.

## ALLAMAKEE

1	Button blank cutters.....	42		42	8		8	26
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## APPANOOSE

2	Mine employees.....	53		53	53		53	53
3	Mine employees.....	1,880		1,880	1,660		1,660	1,660
4	Mine employees.....	80		80	65		65	65
5	Mine employees.....	68		68	54		54	54
6	Miners.....	48		48	32		32	32
7	Telephone linemen.....	45		45	45		45	8

## BOONE

8	Mine employees.....	35		35	22		22	30
9	Laborers at water works.....	35		35	35		35	35

## CHICKASAW

10	Brick makers.....	8		8	2		2	2
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## CLAYTON

11	Button blank cutters.....	36		36	12		12	28
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## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.			WEEKLY WORKING HOURS.	
	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Before strike.	After strike.

## COUNTY.

40		20	20		20				54	48
41		252	252		252				60	48
42		20	20		20				48	48
43		131	137		137				54	48
44		129	140		140				48	48

## COUNTY.

45		20	20		20	6		6	6	(a)	(a)
46		42	42		42					54	48
47		9	9		9	5		5		60	60
48		7	20		20					60	60
49	11	25	14	11	25	14	11	25		56	56

(a) Irregular.

## COUNTY.

1		26	42		42					59	59
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## COUNTY.

2		53	53		53					48	48
3		1,660	1,660		1,660					48	48
4		65	65		65					48	48
5		54	54		54					48	48
6		32	48		48					48	48
7		8	8		8	8		8		60	60

## COUNTY.

8		30	30		30					48	48
9		35	35		35					60	60

## COUNTY.

10		2	8		8	2		2		60	60
----	--	---	---	--	---	---	--	---	--	----	----

## COUNTY.

11		28	28		28					60	60
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TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1900—Continued.			
APPANOOSE			
2	Mine employes .....	Diamond .....	For 12.5 per cent increase of wages.
3	Mine employes .....	Centerville dist .....	For adoption of new scale one month earlier than agreement stipulated.
4	Mine employes .....	Jerome .....	For change of coal screen.
5	Mine employes .....	Jerome .....	Against alleged short weight of coal mined.
6	Miners .....	Brazil .....	Against accepting firm's terms for work done under new system.
7	Telephone linemen .....	Centerville .....	For increase of help.
BOONE			
8	Mine employes .....	Boonsboro .....	Against doing extra work without extra pay.
9	Laborers at waterworks .....	Boone .....	For increase of wages from \$1.75 to \$2.00 per day and reduction of hours from 10 to 9 per day.
CHICKASAW			
10	Brickmakers .....	New Hampton .....	For increased wages from \$1.50 to \$1.75 per day.
CLAYTON			
11	Button blank cutters .....	Guttenburg .....	Against 12.5 per cent reduction in wages.
CLINTON			
12	Compositors .....	Clinton .....	For 15 per cent increase of wages.
CRAWFORD			
13	Brickmakers .....	Denison .....	For 15 per cent increase of wages.
DES MOINES			
14	Cigarmakers and packers .....	Burlington .....	For \$1.00 per 1000 increase in wages.

## —PART 1—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES <sup>1</sup> .		Loss of employees.
			Closed.	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
2	Yes ..	Yes ..	1	.....	Mar. 1	Apr. 2, 1900	32	\$2,500	.....	\$ 1,500
3	Yes ..	No ..	59	.....	Mar. 1	Apr. 2, 1900	32	66,400	.....	25,600
4	Yes ..	Yes ..	1	.....	May 1	May 10, 1900	15	1,500	.....	150
5	No ..	Yes ..	1	.....	Aug. 12	Sep. 4, 1900	23	2,160	.....	230
6	No ..	Yes ..	1	.....	Nov. 21	Nov. 24, 1900	3	276	.....	100
7	No ..	No ..	.....	1	Aug. 22	Aug. 27, 1900	5	04	.....	.....
COUNTY.										
8	No ....	Yes ...	1	.....	May 30	June 13, 1900	14	720	.....	200
9	Yes	Partly.	1	.....	Sep. 7	Sep. 10, 1900	3	184	.....	30
COUNTY.										
10	No ....	No ..	1	.....	July 5	July 11, 1900	6	114	.....	.....
COUNTY.										
11	No ...	No ...	.....	1	Mar. 13	Mar. 26, 1900	13	300	.....	200
COUNTY.										
12	No ....	Yes ..	.....	1	Mar. 10	Mar. 21, 1900	2	24	.....	(a) 5,000
(a) Allied printing trades union label withdrawn, business fell off and establishment closed.										
COUNTY.										
13	No ...	Yes ..	1	... ..	July 14	July 15, 1900	1	26	..	..
COUNTY.										
14	Yes ..	Yes ..	.....	3	June 25	July 5, 1900	10	460	330	.....

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE STRIKE.			EMPLOYEES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female	Total.	Male.	Female	Total.	Male.
1900—Continued.								
CLINTON								
12	Compositors .....	34	..	34	6	.....	6	6
CRAWFORD								
13	Brick makers.....	14	.....	14	13	.....	13	13
DES MOINES								
14	Cigar makers and packers .....	56	.....	56	34	.....	34	34
DUBUQUE								
15	Tailors .....	14	1	15	10	1	11	10
16	Coopers .....	20	.....	20	20	.....	20	20
EMMET								
17	Egg packers .....	25	4	29	14	.....	14	14
LINN								
18	Painters and paper hangers ....	49	15	64	35	.....	35	35
19	Bakers.....	17	3	20	1	.....	1	4
20	Coopers, oat meal mill. ....	275	228	503	33	.....	33	33
21	Molders .....	15	.....	15	8	.....	8	8
MAHASKA								
22	Machine operators, overall factory .....	3	24	27	1	.....	1	.....
23	Miners.....	650	.....	650	650	.....	650	215
MARION								
24	Mine employes.....	35	..	35	35	.....	35	35

## —PART II—CONTINUED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.				WEEKLY WORKING HOURS.	
	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Bro't from other places.	Before strike.	After strike.
COUNTY.											
12	.....	6	6	.....	6	.....	.....	.....	.....	60	60
COUNTY.											
13	..	13	13	.....	13	.....	.....	.....	.....	60	60
COUNTY.											
14	.....	34	34	.....	34	.....	.....	.....	.....	48	48
COUNTY.											
15	1	11	10	1	11	.....	.....	.....	.....	72	72
16	.....	20	20	.....	20	.....	.....	.....	.....	60	60
COUNTY.											
17	.....	14	14	.....	14	.....	.....	.....	.....	54	54
COUNTY.											
18	.....	35	35	.....	35	40	.....	40	.....	60	60
19	.....	4	4	.....	4	.....	.....	.....	.....	60	60
20	.....	33	33	.....	33	.....	.....	.....	.....	60	60
21	.....	8	8	.....	8	.....	.....	.....	.....	60	60
COUNTY.											
22	12	12	12	.....	12	12	.....	2	2	54	54
23	.....	215	215	.....	215	.....	.....	.....	.....	54	48
COUNTY.											
24	.....	35	35	.....	35	.....	.....	.....	.....	54	48

TABLE No. I

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1900—Continued.			DUBUQUE
15	Tailors.....	Dubuque...	For discharge of obnoxious employe.
16	Coopers.....	Dubuque...	For 10 per cent increase of wages
			EMMET
17	Egg packers.....	Estherville ..	For 10 per cent increase in wages
			LINN
18	Painters and paper hangers.....	Cedar Rapids.	For increase of wages, reduction of hours, time and a half for overtime and double pay for Sundays and holidays
19	Bakers.....	Cedar Rapids.	For reinstatement of discharged foreman
20	Coopers, oat meal Mill, .....	Cedar Rapids.	For increase of wages
21	Molders .....	Cedar Rapids.	Against change from day to piece work.....
			MAHASKA
22	Machine operators, overall factory.	Oskaloosa ...	For reinstatement of discharged committee
23	Miners .....	Muchakinock and Buxton.	For recognition of miners' union
			MARION
24	Mine employes.....	Otley .....	For 12.5 per cent increase of wages and recognition of miners' union
			MUSCATINE
25	Button blank cutters .....	Muscatine...	For free saws and files .....
26	Button blank cutters.....	Muscatine ..	For 10 per cent increase of wages....
27	Button blank cutters.....	Muscatine ..	For 10 per cent increase of wages....
28	Button blank cutters.....	Muscatine ..	For free saws and files or restoration of former reduction of wages
29	Button blank cutters.....	Muscatine...	Against reduction of 15 per cent in wages .....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employers.
			Closed	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
15	No ....	Yes Partly.	3	1	June 15	June 20, 1900	5			
16	Yes ..				May 1	May 15, 1900	14	\$ 600		\$ 600
COUNTY.										
17	No ....	No .....		1	Dec. 10	Dec. 12, 1900	2			25
COUNTY.										
18	Yes ..	No .....	3	1	Mar. 15	Mar. 20, 1900	14	2,275	160	4,000
19	No ....	No .....		1	Jan. 5	Jan. 6, 1900	1	8		
20	Yes ....	No .....		1	Jan. 22	Feb. 5, 1900	14	1,650	395	
21	No ....	No .....		1	July 1	July 31, 1900	30	160		
COUNTY.										
22	Yes ....	No .....		1	July 18	July 25, 1900	7	54		1,000
23	Yes ....	Yes .....		3	Sep. 1	Sep. 15, 1900	14	5,400		1,000
COUNTY.										
24	Yes ....	Yes ....	1		April 1	July 15, 1900	105	2,200	75	3,000
COUNTY.										
25	No ....	Yes ....	1		April 25	April 30, 1900	5	378		50
26	No ....	Yes ....	1		April 30	May 5, 1900	5	96		
27	No ....	Yes ....		1	April 30	May 8, 1900	8	336		50
28	No ....	Yes ....		1	May 1	May 8, 1900	7	400		50
29	Yes ....	No .....	1		Sep. 1	Nov. 1, 1900	61	1,200		2,500

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYES BEFORE STRIKE.			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female.	Total.	Male.	Female.	Total.	Male

MUSCATINE

1900-Continued.

25	Button blank cutters.....	63		63	59		59	49
26	Button blank cutters.....	16		16	14		14	14
27	Button blank cutters.....	39		39	39		39	32
28	Button blank cutters.....	60		60	60		60	40
29	Button blank cutters.....	27		27	24		24	24

POLK

30	Building laborers.....	110		110	52		52	52
31	Plumbers and steam fitters .....	54	8	62	38		38	38
32	Miners.....	190		190	120		120	155
33	Miners.....	220		220	155		155	204
34	Mine employees.....	312		312	312		312	300
35	Miners.....	126		126	104		104	118
36	Mine employees.....	325		325	1		1	315
37	Miners.....	210		210	210		210	104
38	Coopers, starch works.....	171	44	215	1		1	14
39	Waiters, restaurant.....	42	0	42	37		37	6
40	Cigarmakers.....	9	1	10	0		0	4

POWESHIEK

41	Glove cutters.....	41	46	87	7		7	7
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SCOTT

42	Carpenters.....	225		225	139		139	129
43	Cigar makers.....	144	213	357	139	118	257	37

WAPELLO

44	Freight handlers.....	31		31	12		12	14
45	Beer bottlers.....	17		17	1		1	1

WEBSTER

46	Brick makers.....	25		25	25		25	25
47	Laborers, railroad.....	235		235	225		225	180

## -PART II-CONTINUED.

Marginal number.	NO. OF STRIKERS		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.				WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	Before strike.	After strike

COUNTY.

25	49	63	63							60	60
26	14	16	16							60	60
27	32	32	32							60	60
28	40	40	40			15		15		60	60
29	24	27	27							60	60

COUNTY.

30	52	52	52							54	54
31	38	38	38							48	48
32	155	155	155							48	48
33	204	204	204							48	48
34	300	300	300							48	48
35	118	118	118							48	48
36	315	315	315							48	48
37	104	104	104							60	60
38	14	14	14			7		7		84	77
39	24	26	29	3		5	2	7	2	48	60
40	4	4	4			4		4	4		

COUNTY.

41	7	7	19	26						60	60
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COUNTY.

42	129	139	129							54	48
43	6	43	37	13	50	16	2	18		40	46

COUNTY.

44	14	14	14			14		14		60	60
45	10	10	10			2		2		54	54

COUNTY.

46	25	25	25			180		180		60	60
47	180	180	180							60	60

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1900—Continued.			POLK
30	Building laborers.....	Des Moines..	For increase of wages from \$1.75 to \$2.00 per day.....
31	Plumbers and steam fitters.....	Des Moines..	Against employment of non-union men.....
32	Miners.....	Youngstown..	Against alleged short weight of coal.
33	Miners.....	Youngstown..	Against continued use of illegal coal screen.....
34	Mine employes.....	Carbondale....	For change of pay day.....
35	Miners.....	Berwick.....	Against continued practice of short weight.....
36	Mine employes.....	Carbondale....	For reinstatement of discharged employes.....
37	Miners.....	Saylorville....	For recognition of union and modification of mine rules.....
38	Coopers, starch works.....	Des Moines..	For reinstatement of discharged committee man.....
39	Waiters, restaurants.....	Des Moines..	For recognition of union and increase of wages.....
40	Cigar makers.....	Des Moines..	Against employment of non-union men.....
			POWESHIEK
41	Glove cutters.....	Grinnell.....	For discharge of objectionable foreman.....
			SCOTT
42	Carpenters.....	Davenport....	For 10 per cent increase of wages and reduction of hours from 9 to 8 per day.....
43	Cigar makers.....	Davenport....	For 10 per cent increase of wages.....
			WAPELLO
44	Freight handlers, railroad.....	Ottumwa.....	For increase of wages from \$1.25 to \$1.50 per day.....
45	Beer bottlers.....	Ottumwa.....	For reinstatement of discharged employes.....
			WEBSTER
46	Brick makers.....	Lehigh.....	For increase of wages from \$1.75 to \$2.00 per day.....
47	Laborers, railroad construction.....	Gowrie.....	Against reduction of wages from \$2.00 to \$1.65 per day.....

## —PART I—CONTINUED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS		EMPLOYEES'—		Loss of employers.
			Closed.	Not closed.		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
30	Yes....	No.....		2	April 2	April 30, 1900	28	\$2,000		
31	Yes....	No.....		12	Aug. 10	Aug. 24, 1900	14	1,368	\$ 380	
32	Yes....	Yes....	1		Mar. 15	Mar. 22, 1900	7	1,860		\$ 1,000
33	Yes....	Yes..	1		June 1	June 4, 1900	3	1,200		150
34	No....	Yes..	1		July 1	July 3, 1900	2	1,200		300
35	No....	Yes....	1		Aug. 1	Aug. 2, 1900	1	243		125
36	No....	No....	1		Aug. 1	Aug. 4, 1900	3	1,890		450
37	Yes....	Yes....		1	Sep. 1	Sep. 8, 1900	7	1,280		500
38	Yes..	No....		1	Aug. 28	Sep. 5, 1900	8	200		
39	Yes....	(a)	1	5	April 16	June 5, 1900	50	750	450	2,340
40	No....	No....		1	Jan. 22	Feb. 1, 1900	10	158	83	
(a) Succeeded in four restaurants; succeeded partially in two restaurants.										
COUNTY.										
41	No....	No....		1	April 23	May 16, 1900	23	548		250
COUNTY.										
42	Yes....	Yes....	13	15	April 17.	May 17, 1900..	30	5,625	1,560	\$ 10,000
43	Yes....	(a)	4	5	Oct. 6...	Oct. 27, 1900..	21	324	201	2,000
a. Succeeded in two establishments, failed in seven.										
COUNTY.										
44	No....	No....		1	Oct. 12..	Oct. 21, 1900..	9	420		500
45	No....	No....		1	July 12..	July 16, 1900..	4	300		
COUNTY.										
46	No....	Yes....	1		Sept. 10.	Sept. 17, 1900.	7	250		500
47	No....	No....		1	Aug. 16.	Aug. 26, 1900	10	2,580		

TABLE No. 1

Marginal number.	OCCUPATION.	LOCALITY.	CAUSE OR OBJECT.
1900—CONCLUDED.			WOODBURY
48	Carpenters .....	Sioux City....	For reduction of hours from 10 to 9 per day .....
49	Bricklayers .....	Sioux City....	Against laborer doing bricklayers' work .....
50	Plumbers and steam fitters.....	Sioux City....	Against employment of non-union men .....
51	Barbers.....	Sioux City....	For reduction of hours from 83 to 77 per week .....

## —PART I—CONCLUDED.

Marginal number.	Ordered by labor organization.	Succeeded.	NUMBER OF ESTABLISHMENTS INVOLVED.		Beginning.	STRIKERS RE-EMPLOYED OR PLACES FILLED BY OTHERS.		EMPLOYEES'—		Loss of employment.
			Closed	Not closed		Date.	Days to date.	Wage loss.	Assistance.	
COUNTY.										
48	Yes....	No.....			1 June 16.	June 23, 1900..	7	\$ 150		
49	No ....	No.....			1 Aug. 20.	Aug. 21, 1900..	1			
50	Yes .	Yes.....			1 Oct. 25..	Oct. 26, 1900..	1	25		
51	No....	No.....			2 Oct. 20.	Oct. 30, 1900	10			

TABLE No. 1

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE STRIKE.			EMPLOYEES FOR WHOM STRIKE WAS UNDERTAKEN.			NO. OF STRIKERS.
		Male.	Female	Total.	Male.	Female	Total.	
1900—CONCLUDED.								
WOODBURY								
48	Carpenters .....	30	.....	30	19	.....	19	11
49	Brick layers .....	38	.....	38	.....	.....	4	4
50	Plumbers and steam fitters.....	18	1	19	8	.....	8	8
51	Barbers .....	5	.....	5	2	.....	2	3

## —PART II—CONCLUDED.

Marginal number.	NO. OF STRIKERS.		NUMBER OF EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKES.			NUMBER OF NEW EMPLOYEES AFTER STRIKE.				WEEKLY WORKING HOURS.	
	Female	Total.	Male.	Female	Total.	Male.	Female	Total.	Bro't from other places.	Before strike.	After strike.
COUNTY.											
48		11	11		11	6		6		(a)	60
49		4	4		4	4		4		54	60
50		8	9		9					48	48
51		2	2		2	2		2		83	83

(a) Fifty-four and sixty hours.

TABLE

Summary of strikes for the state of Iowa in all counties

Marginal number.	COUNTY.	Total number of strikes.	Total number of strikers	Number for whom strike was undertaken.	ORDERED BY LABOR ORGANIZATION.	
					Yes.	No.
1894—SIX MONTHS						
1	Appanoose.....	15	320	380	15	.....
2	Mahaska.....	12	1,800	1,800	12	.....
3	Muscatine.....	1	8	8	.....	1
4	Palo Alto.....	1	7	7	1	.....
5	Polk.....	16	660	660	15	1
Total for six months 1894.....		45	2,795	2,855	43	2
1895.						
1	Appanoose.....	4	630	595	2	2
2	Black Hawk.....	2	9	5	2	.....
3	Boone.....	1	4	4	.....	1
4	Des Moines.....	1	112	112	1	.....
5	Dubuque.....	2	36	36	2	.....
6	Keokuk.....	2	30	30	.....	2
7	Lee.....	1	30	30	1	.....
8	Lucas.....	1	20	20	.....	1
9	Mahaska.....	2	12	12	2	.....
10	Marion.....	1	80	80	.....	1
11	Montgomery.....	1	4	4	.....	1
12	Muscatine.....	2	10	10	2	.....
13	Monroe.....	1	40	40	.....	1
14	Taylor.....	2	51	51	.....	2
15	Wapello.....	4	57	57	1	3
16	Wayne.....	1	5	5	.....	1
17	Twelve counties (a).....	2	10,000	10,000	2	.....
Total for 1895.....		30	11,136	11,101	14	16

(a) Appanoose, Boone, Polk, Webster, Jasper, Wayne, Wapello, Lucas, first general ing eighty mines.

1896.						
1	Appanoose.....	2	70	70	2	.....
2	Des Moines.....	1	25	25	.....	1
3	Jasper.....	2	1,520	1,520	2	.....
4	Keokuk.....	6	335	335	5	1
5	Lucas.....	1	35	35	.....	1
6	Marion.....	1	30	30	.....	1
7	Monroe.....	1	80	80	.....	1
8	Polk.....	32	2,027	2,082	32	.....
9	Pottawattamie.....	1	12	12	1	.....
10	Scott.....	4	21	21	4	.....
11	Wapello.....	1	22	22	1	.....
12	Webster.....	1	70	70	.....	1
Total for 1896.....		53	4,247	4,302	47	6

No. 2.

where strikes took place and including all industries.

Marginal number.	NUMBER OF STRIKES WHICH—			NUMBER OF ESTABLISHMENTS—			TOTAL COST.		
	Suc-ceeded.	Partly Suc-ceeded.	Failed.	In-volved.	Closed.	Total number days closed.	Wage loss.	Assist-ance.	Loss of employ-ers.
1	15	.....	.....	15	15	10	\$ 4,000	.....	\$ 1,000
2	.....	.....	12	12	12	20	54,000	\$ 5,000	20,000
3	.....	.....	1	1	1	6	50	.....	150
4	.....	.....	1	1	1	30	600	105	2,500
5	16	.....	.....	16	16	20	8,900	.....	5,500
31		.....	14	45	45	86	\$ 67,556	\$ 5,105	\$ 20,150
1	1	.....	3	4	4	58	\$ 7,375	.....	\$ 2,500
2	.....	.....	2	2	2	41	275	.....	300
3	.....	.....	1	1	1	5	100	.....	.....
4	.....	.....	1	1	1	61	8,000	.....	500
5	.....	.....	2	2	2	26	700	.....	300
6	.....	.....	2	2	2	21	250	.....	100
7	.....	.....	1	1	1	245	5,600	\$ 300	.....
8	.....	.....	1	1	1	14	400	.....	100
9	.....	.....	1	1	1	51	260	.....	1,000
10	1	.....	1	1	1	2	320	.....	50
11	.....	.....	1	1	1	15	200	15	150
12	2	.....	1	3	3	121	430	.....	500
13	.....	.....	1	2	2	30	1,500	.....	.....
14	.....	.....	2	2	2	13	540	.....	100
15	2	.....	4	3	3	123	5,180	108	1,700
16	1	.....	1	1	1	1	8	.....	.....
17	20	60	155	235	235	75	590,000	27,000	145,000
28		60	176	265	252	902	\$ 621,138	\$ 27,423	\$ 152,300

strike including 155 mines. Appanoose, Boone, Webster, Polk, second general strike includ-

1	1	.....	1	2	2	14	\$ 700	.....	.....
2	.....	.....	1	1	1	5	60	.....	.....
3	1	.....	1	2	2	80	96,000	\$ 1,000	\$ 8,000
4	.....	.....	6	6	6	128	44,375	.....	19,000
5	.....	.....	1	1	1	10	350	.....	.....
6	.....	.....	1	1	1	8	500	.....	100
7	.....	.....	1	1	1	13	2,600	.....	1,500
8	24	.....	8	32	31	141	78,574	52	33,300
9	1	.....	.....	1	1	1	25	.....	.....
10	1	.....	3	4	4	3	1,700	1,172	1,000
11	1	.....	.....	1	1	1	50	.....	.....
12	.....	.....	1	1	1	14	1,500	.....	500
29		.....	24	53	49	418	\$ 225,814	\$ 2,224	\$ 61,400



TABLE No. 2—

Marginal number.	COUNTY.	Total number of strikes.	Total number of strikers.	Number for whom strike was undertaken.	ORDERED BY LABOR ORGANIZATION.	
					Yes.	No.
	1900.					
1	Allamakee.....	1	26	8	1	
2	Appanoose.....	6	1,872	1,909	3	3
3	Boone.....	2	65	57	1	1
4	Chickasaw.....	1	2	2		1
5	Clayton.....	1	28	12	1	
6	Clinton.....	1	6	6		1
7	Crawford.....	1	13	13		1
8	Des Moines.....	1	34	34	1	
9	Dubuque.....	2	31	31	1	1
10	Emmet.....	1	14	14		1
11	Linn.....	4	80	77	2	2
12	Mahaska.....	2	227	651	2	
13	Marion.....	1	35	35	1	
14	Muscatine.....	5	159	190	1	4
15	Polk.....	11	1,328	1,042	7	4
16	Poweshiek.....	1	7	7		1
17	Scott.....	2	172	386	2	
18	Wapello.....	2	24	13		2
19	Webster.....	2	205	250	2	
20	Woodbury.....	4	25	33	2	2
	Total for 1900.....	51	4,353	4,776	24	27

CONTINUED.

Marginal number.	NUMBER OF STRIKES WHICH—			NUMBER OF ESTABLISHMENTS—			TOTAL COST.		
	Suc-ceeded.	Partly Suc-ceeded.	Failed.	In-volved.	Closed.	Total number days closed.	Wage loss.	Assist-ance.	Loss of employ-ers.
1			1	2	2	2	126		35
2			2	64	63	110	72,960		27,580
3	4	1	1	2	2	17	904		230
4			1	1	1	6	114		
5			1	1		13	300		300
6				1		2	24		(a) 5,000
7				1	1	1	26		
8	1			3		10	400	330	
9	1	1		4	3	19	600		600
10			1	1		2			85
11			4	7	3	59	4,093	525	4,000
12	1		1			21	5,454		2,000
13	1			1	1	105	2,200	75	3,000
14	4		1	5	3	86	2,410		2,650
15	5	1	5	28	6	133	12,140	913	4,885
16			1	1		23	548		250
17	1	1		37	17	51	5,949	1,763	12,000
18			2	2		13	816		500
19			1	2	1	17	2,830		500
20	1		3	5		19	175		
	23	4	24	172	103	709	\$ 112,138	\$ 3,606	\$ 63,435

a. Allied printing trades union label was withdrawn, business fell off, and establishment closed.

TABLE No. 3.

Summary of strikes by industries in the state from July, 1894, to 1900, inclusive.

INDUSTRIES.	1894. Six months	1895.	1896.	1897.	1898.	1899.	1900.	Total
Bakeries.....							1	1
Barber shops.....							2	2
Bottling, beer and mineral wat'r.....						1	1	2
Brickmaking.....						1	3	4
Broom making.....				1				2
Building trades.....				1				1
Button making.....	1						37	39
Candy manufactories.....						4	8	12
Canning factories.....			1		1			2
Cereal mills.....					1	1		3
Cigar factories.....	1	6	1	1	1	11	13	34
Cohta manufactories.....						1		1
Cooperage.....		1			1	3	5	10
Egg packing plants.....							1	1
Freight handling (railroad).....							1	1
Glove manufactories.....							1	1
Harness manufactories.....						1		1
Lumber yards.....		1				1		2
Machine shops.....		1				2		3
Mining (coal).....	42	251	45	112	25	84	74	633
Molding, iron foundries.....					1		1	2
Overall manufactories.....		1		1	1	1	1	5
Publishing, newspapers.....			5	1	1	3	1	11
Plumbing and heating.....						19	13	32
Riveting, shipbuilding.....					1			1
Railroad, construction.....						3	1	4
Starch, works.....						1		1
Street car, transportation.....	1							1
Switching (railroad).....						1		1
Teaming and transferring.....			1					1
Telephone, construction.....				1		1	1	3
Tailoring.....						4	1	5
Theatre, stage setting.....							1	1
Waiters of hotel and rest'rnt.....						1	6	7
Total.....	45	265	53	118	35	143	172	831

TABLE

Summary of all strikes, all localities

BY YEARS.	Total number of strikes	Total number of strikers.	Number for whom strike was undertaken.	ORDERED BY LABOR ORGANIZATIONS.	
				Yes.	No.
1894 (a) .....	45	2,795	2,855	43	2
1895 .....	30	11,130	11,101	14	16
1896 .....	53	4,247	4,302	47	6
1897 .....	118	5,044	5,029	114	4
1898 .....	35	1,251	1,251	28	7
1899 .....	49	4,110	3,524	26	23
1900 .....	51	4,353	4,776	24	27
6 years, 6 months .....	(a) 381	32,930	32,838	296	85

(a) From June 30 to December 31, 1894.

No. 4.

and all industries, 1894 to 1900 inclusive.

BY YEARS.	NUMBER OF STRIKES WHICH			NUMBER OF ESTABLISHMENTS			TOTAL COST.		
	Succeeded	Partly Succeeded	Failed	Involved.	Closed	Total number days closed.	Wage loss.	Assistance.	Loss of employe.
1894 (a) .....	31	.....	14	45	45	86	\$ 67,556	\$ 5,105	\$ 29,150
1895 .....	28	60	176	265	252	902	621,138	27,423	152,300
1896 .....	29	.....	24	53	46	418	225,814	2,224	61,400
1897 .....	54	14	50	118	112	283	218,070	3,907	106,865
1898 .....	20	1	7	35	18	282	44,005	5,236	24,475
1899 .....	26	3	20	143	91	826	151,338	3,801	108,560
1900 .....	23	4	24	172	103	709	112,138	3,606	63,435
6 yrs, 6 mos. .....	211	82	315	831	669	4,006	\$1,440,679	\$51,302	\$ 548,185

(a) From June 30 to December 31, 1894.

The apparent discrepancy between the number of strikes ordered and the number of strikes which were disposed of, whether they succeeded in whole or in part, or failed, arises from the fact that one strike may involve a number of establishments in which the strike is settled by separate negotiations between employers and employes of the several establishments. For example, the total number of strikes ordered from 1894 to 1900 inclusive, amounted to 381, but the number of strikes which succeeded, wholly or partly, and those which failed, amounted in all to 608, due to the fact that 608 separate settlements took place in the adjustment of the dispute. A particular instance is marginal number 17, in the year 1895, where two strikes affecting 10,000 employes, and 235 establishments appears under a column headed number of strikes as twenty successful strikes, sixty partly successful and 155 failures, a total of 235.

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## LOCKOUTS IN IOWA.

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TABLE

*Lockouts in state of Iowa by years,*

Marginal No.	OCCUPATIONS.	LOCALITY.	CAUSE OR OBJECT.
1895			DES MOINES
1	Tailors .....	Burlington.....	Against union men by employers.....
1896			WEBSTER
2	Mine employes...	Lehigh.....	Against threatened strike for increase of wages.
1897			BOONE
3	Mine employes...	Fraser .....	To enforce new rules by employers.....
			POLK
4	Cigar makers....	Des Moines.....	To compel union employes to furnish union labels for cigars made elsewhere in non-union shop .....
1899			SCOTT
5	Compositors.....	Davenport.....	To enforce reduction of wages by employers...
			POTTAWATTAMIE
6	Cigar makers....	Council Bluffs.....	Against union men by employers.....
1900			WOODBURY
7	Cigar makers....	Sioux City.....	Against union men by employers.....

No. 1—PART I.

*counties and industries.*

Marginal No.	Number of establishments involved.		Beginning.	Locked out employes re-employed or places filled by others.		Succeeded.	Employees.		Loss of employ-ers.
	Closed.	Not closed.		Date.	Days lasted.		Wages lost.	Assis-tance.	
COUNTY. 1895									
1	.....	1	Aug. 1	Oct. 1, 1895	61	Yes....	\$ 350	.....	\$ 500
COUNTY. 1896									
2	1	.....	July 1	July 31, 1896	30	Yes....	6,000	.....	3,000
COUNTY. 1897									
3	1	.....	May 22	Oct. 1, 1897	132	Yes....	80,000	5,000	50,000
COUNTY.									
4	1	.....	June 28	July 21, 1897	23	No ....	300	37	276
COUNTY. 1899									
5	.....	1	Aug. 11	Aug. 12, 1899	1	Yes....	(a).....	(a).....	(a)
(a) Not reported.									
COUNTY.									
6	.....	1	Nov. 15	Nov. 30, 1899	15	Yes...	.....	.....	500
COUNTY. 1900									
7	.....	1	Dec. 1	Feb. 1, 1901	62	Yes....	100	.....	200

TABLE NO. 1—

Marginal number.	OCCUPATION.	EMPLOYEES BEFORE LOCKOUT.		
		Male.	Female.	Total.
1	Tailors .....	8	5	13
2	Mine employes.....	200	.....	200
3	Mine employes.....	400	.....	400
4	Cigar makers.....	10	.....	10
5	Compositors .....	12	2	14
6	Cigar makers.....	7	.....	7
7	Cigar makers.....	0	.....	0

PART II.

Marginal number.	EMPLOYEES THROWN OUT OF EMPLOYMENT BY LOCKOUT.			NEW EMPLOYEES AFTER LOCKOUT.				WEEKLY WORKING HOURS.	
	Male.	Female.	Total.	Male.	Female.	Total.	Brought from other places.	Before lockout.	After lockout.
1	4	.....	4	4	.....	4	4	60	60
2	200	.....	200	.....	.....	.....	.....	60	60
3	400	.....	400	100	.....	100	100	60	60
4	10	.....	10	.....	.....	.....	.....	48	48
5	7	.....	7	7	.....	7	7	48	48
6	3	.....	3	3	.....	3	2	48	60
7	3	.....	3	3	.....	3	.....	48	60

Summarizing the lockouts in the State of Iowa from June 30, 1894, to December, 1900, inclusive, there is shown seven separate lockouts in six separate localities, viz.: Burlington, Lehigh, Fraser, Des Moines, Davenport, Council Bluffs and Sioux City. Seven separate establishments were involved, of which three were closed, and four were not closed. The duration of each lockout is from one to sixty-two days. Six of the lockouts succeeded and one failed. Wages lost \$86,750. Assistance rendered the locked out employes \$5,000. Loss to employers \$54,476. There were 649 male and seven female employes before lockout, a total of 656. There were thrown out of employment by lockout 653 employes. One hundred and sixteen new men were employed. Brought from other places 113. Weekly working hours remained the same, except in two lockouts where each of the establishments increased the time from forty-eight to sixty hours per week.

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## THE SHORTER WORK DAY.

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## THE SHORTER WORK DAY.

SECURED BY LABOR ORGANIZING IN THE UNITED STATES.

The material of which this chapter is composed is designed to fill a long felt want and has been made necessary by the many inquiries coming to the bureau from students in all walks of life.

A chronological review of the national and international trades unions, with general offices in the United States, reveal ninety-four of such organizations, eighty-nine of which reported the date they were established; their growth by decades is as follows:

Year.....	1850	1860	1870	1880	1890	1900
National and international unions ..	1	5	4	6	22	51

The total membership in these organizations is now 1,550,247.

Seventy-six organizations reported the maximum hours for a day's work previous to organization as being sixteen hours for ten crafts, fourteen hours for five crafts, twelve hours for twelve crafts, eleven hours for three crafts, ten hours for forty-seven crafts, or an average of eleven hours and one-half for a maximum day's work.

Since organization has been effected, eight crafts work twelve hours, three crafts work eleven hours, one craft works nine hours and one-half; thirty-five crafts work ten hours, seventeen crafts work nine hours and twelve crafts work eight hours, thereby showing the average length of the maximum number of hours for a day's work has been reduced to nine hours and three-quarters.

In addition to the foregoing, twenty-eight of the thirty-five crafts listed as working ten hours per day, now have the eight and nine hour work day in operation in the strongest organized localities.

The total number working on the basis of eight hours for a maximum day in the United States, as reported, is 531,085, exclusive of such employes in the service of the government who are not represented through organization.

Relative to that portion of the table following in this chapter which refers to strikes, this inquiry was confined to those strikes

which had been reported to and conducted by the general officers, and do not include such strikes as have been conducted entirely by local effort, and many of which are never made a matter of record.

The total number of strikes here recorded for 1899 and 1900, and which were conducted by the constitutional officials of the organizations, amounted to 1,427, with 1,071 successful, 179 compromised, and 177 lost. These disputes cost the treasuries of the organizations, who reported this item, a total of \$1,293,181. This expense only represents strike benefits distributed to strikers and persons involved, together with the expenses of committees or arbitrators who conducted and settled the disputes. The total number of persons involved in these strikes during 1899 and 1900 were 274,260, and the total number benefited were 285,932.

An exhaustive inquiry was also made as to the position these organizations took on the question of arbitration as a method of preventing strikes.

Compulsory arbitration is unanimously opposed.

Arbitration by outside parties who are not directly interested in the controversy and who may be specially selected by the disputants is generally regarded with favor, but only as a last resort.

Many organizations have adopted an elaborate conciliatory system, whereby the employers and employes directly interested shall settle their own differences, with provisions made to permit assistance being given by both the national representatives of the employers and of the trades organizations. This system is very successful as a rule and meets with increasing favor.

Some other organizations, the most notable being the bituminous coal miners, prefer the conference system, whereby representative employers and employes meet annually or at such times as may be previously arranged. At these conferences every point of detail is brought up for consideration and a conclusion reached by a unanimous vote of the whole conference on all matters, before adjournment. This method is highly regarded both by miners and operators, and from the record made during the last three years, the system bids fair to become permanent.

Another system to avoid strikes which is growing in popular favor is the stamping or labeling the products of labor as "union made."

Thirty-one organizations now have labels. The following table shows craft organization, date of establishing label, and the number issued:

CRAFT.	DATE LABEL WAS ESTABLISHED.	NUMBER ISSUED.
Bakers.....	1887, for 1900 only.....	82,483,000
Boot and shoe workers.....	1896, a stamp only, many millions used.	
Brewery workmen.....	1894, for 1900 only.....	13,000,000
Cigarmakers—Blue Label...	1880, for 1899 and 1900 only.....	41,024,500
Carriage workers.....	1894.....	12,000
Coopers.....	1896. No record.	
Engravers (watch).....	1900, eight months only.....	200,000
Hatters.....	1885.....	58,000,000
Leather workers.....	1897. No record.	
Metal polishers.....	1897, for 1900 only.....	500,000
Printers, pressmen, etc.....	1891, many million impressions..	
Tailors.....	1892, for 1900 only.....	1,500,000
Tobacco workers.....	1895, total to date.....	431,260,033
Trunk and bag workers.....	1899.....	20,000
Wood workers.....	1897, stamped on product, no record of quantity.	

The remainder are of recent date and have not been reported.

In addition to the foregoing synopsis of the following table of organizations, a brief statement of successful settlements of disputes without strikes is added at end of chapter.

TABLE  
SHORTER

Secured by Labor Organizations

Marginal number.	NAME OF ORGANIZATION.	Date of organization.	Present membership.	NUMBER OF STRIKES DURING 1899 AND 1900.			
				Won.	Compromised.	Lost.	Total.
1	Allied Metal Mechanics, Int. Ass'n of	1897	2,200				
2	Bakers and Confectioners, Int. Jour. of	1886	9,000				
3	Barbers, Int. Union of Journeymen	1866	6,900	1			4
4	Blacksmiths, Int. Brotherhood of	1890	10,000	2	1		3
5	Boiler makers and Iron Ship B'ldrs, Bro. of	1881	5,400	59	6	5	70
6	Bookbinders, Int. Brotherhood of	1892	4,400	3		2	5
7	Boot and Shoe Workers Union	1880	13,500	7	5	1	13
8	Brewery Workers, Int. Union of United	1886	22,500	21		1	22
9	Brickmakers National Alliance	1894	3,000	6	2	2	10
10	Bricklayers and Masons Int. Union	1865	45,000	c			c
11	Broommakers, International	1897	1,000	9	1	1	11
12	Carpenters and Joiners of A., U. Bhd of	1881	70,000	108	10	6	214
13	Carpenters and Joiners, Amalgamated	1860	3,000	1	10	1	12
14	Carriage and Wagon Makers, International	1891	2,000	3		1	4
15	Carvers Ass'n of North America, Wood	1898	2,000	10	3	2	15
16	Chain Makers National Union of U. S. of A.	1900	400				
17	Cigar Makers, Int. Union of America	1864	35,000	149	38	27	214
18	Clerks Int. Protective Ass'n, Retail	1890	30,000	d			
19	Coopers Int. Union of North America	1890	4,500	35	6	11	52
20	Conductors, Order of Railway	1868	25,280				
21	Coremakers International Union	1898	4,000	b			
22	Curtain Operatives of America, Amal'd, lace	1898	1,000	1			1
23	Drivers, International Union, team	1898	5,000	19	4	3	26
24	Electrical Workers of America, Nat. Bro. of	1891	8,000	8		4	12
25	Engineers, Brotherhood of Locomotive	1863	35,000	b			
26	Engineers, National Bro. of Coal-hoisting	1896	950			1	2
27	Engineers, Int. Union of Steam (stationary)	1896	7,500	5	5		10
28	Engineers, Amal'd Soc. of (machinists, etc.)	1851	2,500				
29	Engravers, Int. Ass'n of Watch Case	1900	500	4		1	5
30	Firemen, Brotherhood of Locomotive	1895	36,600	b			
31	Firemen, Int. Brotherhood of Stationary	1868	2,600	5	1	2	8
32	Fitters and Helpers, Nat. Ass'n of Steam	1888	2,000	4		3	7
33	Garment Workers of America, United	1891	22,000	1	3	1	5
34	Garment Workers Union, Int. Ladies	1900	2,000	14	2	2	18
35	Glass Bottle Blowers Ass'n of the U. S. and C.	1847	4,000	m 15	3		18
36	Glass Cutters League of America, Window	1895	900				
37	Glass Flatteners Ass'n of N. A. Window	1895	500				
38	Glass Workers Union, American Flint	1878	9,000	1			1
39	Glass Workers National Union	1900	500		1		1
40	Granite Cutters National Union	1877	12,000	1			1
41	Grinders National Union, table knife	1900	600	b			
42	Hatters of North America, United	1896	7,500	1	1		2
43	Horse Shoers of U. S. and C., Int. Union of	1874	4,000	31			31
44	Hotel and Restaurant Employes, Int. L. of	1890	10,100	14			14
45	Iron, Steel and Tin Workers Aml. Ass'n of	(b)	8,500	b			
46	Jewelry Workers Union of America, Int.	1899	1,200	1		1	2
47	(g) Knights of Labor	1873	120,000	f			
48	Labor unions, Federal A. F. of L. L.	1881	235,000	46	25	12	83
49	Lathers Int. Union of Wood and Metal	1899	1,000	b			
50	Laundry Workers, International Union of	1900	5,000	b			
51	Laborers, Int., Protective Union of Build'ng	1900	10,000	b			

No. 1.

WORK DAY

in the United States.

MARGINAL NUMBER.	Total cost of strikes to union treasuries during 1899 and 1900.	NUMBER OF PERSONS.		MAXIMUM WORKING HOURS PER DAY.			
		Involved in strikes.	Benefited by strikes.	Previous to organization.	Since organization.	Date when hours were reduced.	Number members working eight hours.
1		b		10	9-10	1899	None
2	\$ 1,913	365	365	16	10½-11	1899	None
3	175	35	35	12-16	10-12		None
4		300	300	10	8-9-10	1899	a 1,500
5	18,027	4,127	6,948	10	8-9-10	1899	a 500
6	2,769	592	555	10	9	1899	b
7		750	750	10	10		None
8	1,500			14-18	8-9-10	1887	11,000
9	5,500	e 1,075	550	10-12	8-9	1896	3,000
10	1,000	b 320	280	10-12	8-9	1897	32,000
11		b	b	10	8-9	1881	200
12		b	b	10	8-9	1881	45,000
13	30,000	b		10	8-9	1881	2,500
14	2,800	320	320	10	8-9	1899	250
15	1,000	150	125	10	9	1899	b
16							
17	97,332	9,547	b 21,817	12-15	8	1886	35,000
18				14	10		None
19	4,250	911	775	13	8-9-10	1892	500
20				e			
21							
22	8,950	100	100	10	9-10	1899	b
23		330	250	10	10		b
24	10,000	3,000	2,000	10	8-9	1892	4,000
25				c			
26	None	600	300	12-14	8-12		350
27		b	b	12	8-10	1897	2,000
28		b	b	10	9-10	1899	a 400
29	22,000	300	250	10	10		None
30				e			
31	1,500	329	265	12-14	8-12	1898	1,000
32	18,000	900	900	10	8-9	1890	1,500
33	625	b	b	12	9-10	1897	1,000
34	6,500	2,000	1,800	115	9-10	1900	None
35	335,000	1,300	1,300	10	8½	1884	3,000
36				110	8	1898	900
37				12	8	1898	500
38		77	500	10	7-8-9	1880	7,500
39		175	100	10	8	1899-1900	None
40	\$ 115,000	4,500	8,000	10			12,000
41							
42	25,000	7,500	7,500	10	9	1898	None
43	11,200	1,800	1,800	10-13	9	1878	None
44	2,300	991	2,000	14-16	10-11		None
45							
46	3,000	1,000	800	10	9½	1899	b
47							
48	b	6,922	5,896	10-12½	8-9-10	1884	f 100,000
49				10	10		None
50							
51							

TABLE No. 1

Marginal number.	NAME OF ORGANIZATION.	Date of organization.	Present membership.	NUMBER OF STRIKES DURING 1899 AND 1900.		
				Won.	Compromised.	Lost. Total
52	Leather Workers on Horse Goods, U. B. of	1896	3,700	12	.....	12
53	Longshoremen's Association, International	1892	20,000	12	3	7 22
54	Machinists, International Association of ...	1888	45,000	51	13	7 71
55	Meat Cutters and Butcher Workmen of N. A.	1897	8,340	.....	.....	2
56	Metal Polishers and Brass Workers U. of N. A.	1898	9,000	8	1	1 19
57	Metal Workers Int. Ass'n, Amal Sheet	1898	3,500	1	.....	1
58	Metal Workers International Union, United	1899	1,500	b	.....	.....
59	Mine Workers of America, United (coal)	1890	275,000	1	1	2 4
60	Mine Workers, Progressive Union of (iron)	1897	4,500	.....	5	5
61	Miners, West'n Fed. of (gold, silver, copper)	1893	40,000	.....	.....	.....
62	Molders Union of North America, Iron ...	1859	20,000	19	3	20 42
63	Musicians, American Federation of	b	6,500	b	.....	.....
64	Oil and Gas Well Workers, Int. Bro. of	1899	500	.....	.....	.....
65	Painters, Dec. and Pap'rhang'rs, Am. Bro. of	1887	32,000	24	5	5 34
66	Paper Makers of Am., United Bro. of	1890	1,000	b	.....	.....
67	Pattern Makers League of North America	1887	2,400	3	.....	1 4
68	Plasterers, Int. Association of Operative ...	1882	7,120	88	0	2 90
69	Plate Printers Union of United States	1893	1,000	1	.....	1
70	Plum'rs, Gas and Steam Fitters, Un. Ass'n	1889	15,000	b	.....	.....
71	Potters, National Brotherhood of Operative	1898	2,500	b	.....	.....
72	Printing Pressmen's Union, International	1899	10,000	15	5	..... 20
73	Railway Clerks of America, Order of	1898	9,000	.....	.....	.....
74	Railway Employees of America, Amal. Street	1895	4,500	6	1	3 10
75	Railroad Telegraphers, Order of	1886	15,000	.....	.....	1 1
76	Railroad Trackmen, Brotherhood of	1899	4,500	b	.....	.....
77	Railroad Trainmen, Brotherhood of	1883	45,000	.....	.....	.....
78	Seamens Union, International	1892	9,515	.....	.....	.....
79	Spinners Association, Cotton	1858	2,850	1	1	..... 2
80	Stage Employees, National Alliance of	1892	3,800	11	3	0 14
81	Switchmen's Union of North America	b	5,000	b	.....	.....
82	Stove Mounters International Union	1898	1,400	4	1	1 6
83	Tailors Union of America, Journeymen	1883	9,000	32	4	6 42
84	Tile Layers Union, Int. Mosaic	1897	800	2	.....	2 4
85	Textile Workers of America, Int. Union of A.	1896	4,000	2	.....	2 4
86	Tinplate Workers Int. Protective Union of A.	1899	2,500	1	.....	1
87	Tobacco Workers International Union	1895	7,000	.....	.....	.....
88	Trunk and Bag Workers Int. Union	1895	320	1	1	..... 2
89	Typographical Union, International	1854	32,900	11	10	15 36
90	Threshermen Protective Ass'n. of America	1899	1,800	8	4	2 14
91	Upholsters Int. Union of N. America	1886	355	1	.....	1
92	Weavers Amal'd Ass'n. of Elastic Web	1890	235	1	.....	1
93	Weavers Protective Ass'n., American Wire	1890	235	1	.....	1
94	Woodworkers, Int. Union of A. Amal'd	1873	17,500	64	2	5 71
Totals				1,550,245	1071	179 177 1427

a. Employees of the United States government in navy yards, arsenals, etc.; 8 hours was made the maximum length of work day in such departments in 1868 (excepting in time of war.)

b. Not reported.

c. No official strikes with bricklayers since 1893. There have been some strikes of a local character, most of which were successful in reducing hours and increasing wages; the 8 hour work day prevails with bricklayers in 226 cities of the United States.

d. Strikes not indulged in.

e. Railroad service, nature of work irregular, schedule of uniform working hours per day not practical.

f. Estimated.

g. Refused to report.

h. Number of members of organization in United States, headquarters Manchester, England; the organization is world-wide and has 65,012 members.

i. Number of members of organization in United States; headquarters London, England; the organization is world-wide and has 100,000 members.

j. The original organization of compositors in the United States dates from 1854. The present International Typographical Union was established in 1899.

—CONTINUED.

MARGINAL NUMBER.	Total cost of strikes to union treasuries during 1899 and 1900	NUMBER OF PERSONS.		MAXIMUM WORKING HOURS PER DAY.			
		Involved strikes.	Benefited strikes.	Previous to organization.	Since organization.	Date when hours were reduced	Number members working eight hours.
52	7,025	520	520	10	10	b	a 400
53	2,500	4,500	2,700	10-18	8-12	1899	None
54	60,300	14,500	25,000	10	8-9-10	1899	a 10,000
55	12,000	1,400	.....	16-18	9-10	.....	None
56	40,000	4,120	12,860	10-11	9	1900	None
57	b	b	.....	10	9	1899	b
58	.....	b	.....	10	8-9	1892	1,000
59	154,677	157,000	147,000	10-15	8	1898	275,000
60	b	4,500	.....	.....	.....	.....	.....
61	.....	.....	.....	10	8-9-10	1890-1900	28,000
62	112,270	2,639	1,111	10	10	.....	a 600
63	.....	.....	.....	12	8-12	1899	100
64	.....	.....	.....	10	8-9	1890	28,000
65	11,000	12,500	12,500	10	8-9	1890	28,000
66	.....	.....	.....	.....	.....	.....	.....
67	3,420	467	1,000	10	9-10	1899	a 250
68	3,500	3,980	3,950	10	8-9-10	1883	6,000
69	b	25	100	8	8	1868	1,000
70	b	b	b	10†	8	1886	15,000
71	.....	.....	.....	.....	.....	.....	.....
72	b	b	.....	10	8	1899	.....
73	b	2,000	.....	10-12	10-12	b	None
74	b	.....	.....	12-18	10-12	b	b
75	.....	.....	.....	12-18	11	.....	None
76	.....	.....	.....	10†	10	b	None
77	.....	.....	.....	.....	.....	.....	None
78	.....	.....	.....	12	12	.....	None
79	None	35	35	11	10	.....	None
80	14,000	1,300	1,200	b	.....	.....	.....
81	.....	.....	.....	.....	.....	.....	.....
82	\$ 250	250	230	10	10	b	None
83	20,418	6,010	5,060	† 12	10	1897	800
84	.....	33	33	10	8	.....	None
85	b	2,765	1,265	† 12	10	.....	None
86	.....	.....	.....	12	8-10	1899	500
87	6,000	100	100	10	8-9-10	1896	1,400
88	550	70	60	10	10	.....	None
89	92,504	.....	.....	† 10-12	8-9	1899	10,000
90	.....	.....	.....	.....	.....	.....	.....
91	3,000	300	200	10	10	.....	b
92	.....	.....	.....	10	9	1887	None
93	4,000	12	12	10	8	1890	235
94	4,906	4,931	4,431	12	8-9-10	1899	8,000
Totals		\$ 1,293,181	274,260	285,932	* 11.5	* 9.7	\$31,085

a. Includes 13,639 non-unionists.

b. 1900 only.

m. The glass bottle blowers maintained one strike in New Jersey which cost the National treasury of that union \$200,000; it succeeded, benefitting 800 employees and embraced 11 firms.

n. Longshoremen are employed intermittently and most of them only during season of navigation; they cannot, as a consequence, ask for an eight-hour day consistently; 12 hours per day is now the maximum; all over that paid for at the rate of double time.

o. Butcher workmen in retail markets where organized have reduced the length of their working day from 16 hours to 11 and abolished Sunday work.

p. Flint glass workers have what is called a limited system of so much of a certain quality of ware for 2 days' work; as the operator gains in skill he reduces the length of his work day, many working only 7 hours and less per day; they average \$1,000 per year.

† And over; hours worked previous to organization in such cases were unlimited, entirely at the discretion of employers; generally without extra remuneration.

\* Average.

## ADVANTAGES GAINED BY ORGANIZATIONS WITHOUT STRIKES DURING 1899 AND 1900.

**BAKERS**—Gained ten per cent. increased wages; secured a reduction in hours of one per day affecting 500 people; obtained recognition of the union generally.

**BARBERS**—General improvement in working conditions. Some localities have reduced hours from thirteen and over to eleven per day, the majority have reduced the hours to an average of twelve per day; have advanced the rate of wages in many places twenty per cent.

**BLACKSMITHS**—Gains in wages and reductions in hours have been secured in a majority of cases with the backsmiths by conciliatory means.

**BOILERMAKERS**—In seven cities gained one hour less per day with ten per cent. increased wages; in one city twenty per cent. increased pay; in one city secured the eight hour day without reduction in pay.

**BOOKBINDERS**—Gained in wages, an average of twenty per cent.; in some cases as high as \$6.00 per week; reduced hours from ten to nine per day generally.

**BOOT AND SHOE WORKERS**—Secured increase of \$2.50 and \$3.00 per week in wages in several cities; better prices and working conditions gained by conciliatory means and the union stamp.

**BREWERY WORKERS**—General improvement in working conditions, more considerate treatment by bosses; increased wages and reduction of working hours secured in many places by conciliation.

**BRICKMAKERS**—Had to strike for everything we got but were amply repaid as it obtained for us the eight hour day and a raise of pay.

**BROOMMAKERS**—200 members secured fifteen per cent increase of wages and one shop the eight hour day.

**CARPENTERS**—As organization develops the eight hour day follows which we usually gain without striking; have also secured the Saturday half holiday and 2½ cents per hour increased pay.

**CARRIAGE WORKERS**—Fifty members secured a reduction of working hours without reduction of wages; eighty others secured increased wages. Better factory conditions.

**CARVERS**—Two hundred members got twenty-five cents a day increase of wages; 200 secured the eight hour day without decreased pay; generally we were driven to strike before we could make ourselves understood that we were in earnest.

**CIGAR MAKERS**—Had a great many strikes, but the majority of difficulties settled without strikes; eight hour day prevailed; greater demand for blue label goods than ever.

**CLERKS**—Continue to gain reductions in working hours and receive the blessing of Sunday observance which was absolutely impossible without organization; better working conditions granted which have an important bearing on our health and comfort.

**COOPERS**—Increased wages and reduced hours have been secured in many places without strikes.

**CURTAIN OPERATIVES**—Gained reduction of working hours; better factory conditions; fifteen per cent increase of wages.

**TEAM DRIVERS**—Better working conditions for man and beast but we are frequently driven to strike or threaten a strike before it is obtained.

**ENGINEERS**—(Coal Hoisting)—Twenty per cent increase of wages and a reduction of four hours per day for 500 men; the blessing of Sunday observance is afforded us too in many instances.

**ENGINEERS**—(Locomotive)—Close organization, careful preparation of grievances, determined efforts, everlasting vigilance for our rights have made strikes almost unnecessary.

**FIREMEN**—(Stationary)—Nine hundred men work eight hours instead of twelve; this puts more men to work gives all a chance to live, and to see our families in day light.

**FIREMEN**—(Locomotive)—Advantages too numerous to specify we avoid strikes by organizing more solidly.

**FITTERS GAS AND STEAM**—Strikes had to be resorted to in every instance to secure our demands.

**GARMENT WORKERS**—(Men's apparel)—Eighteen shops unionized without strikes which meant higher wages and reduced hours in every instance.

**GARMENT WORKERS**—(Ladies' apparel)—Eighteen shops unionized without strikes, gaining twenty-five to thirty per cent. increase of wages.

**GLASS BOTTLE BLOWERS**—Few advantages gained without strikes.

**GRANITE CUTTERS**—Advantages gained without strikes are not many, but by those means we have gained recognition of our union in every locality where we are organized in the United States and we have also secured the adoption of official agreements.

**HATTERS**—Many advantages gained without strikes, largely influenced by the patronage given our union label.

**HOTEL EMPLOYEES**—(Waiters, etc.)—Many advantages secured, chief of which are better conditions, sanitary and otherwise, making the employment more endurable.

**LATHERS**—Every local made demands for more wages and less hours; nearly all won without any strikes of importance.

**LEATHER WORKERS**—Continual gains of increased wages and reduced hours without strikes.

**MACHINISTS**—One hundred and twenty disputes settled without the loss of a day, which secured advantages of recognition, more pay, less hours, and other important shop regulations.

**MEAT CUTTERS**—(Butcher workmen)—Better wages, shorter hours, pay for overtime, and better working conditions have been secured in numerous instances.

**METAL POLISHERS**—3,500 members secured an increase in wages of twenty-five cents per day; better working conditions were secured in every case where complaints were made.

**MINE WORKERS**—(Coal)—A general increase of twenty per cent. in wages was secured by means of joint conferences with employers of bituminous coal miners, in Pennsylvania, Ohio, Indiana, Illinois and Iowa. \$20,000,000 is a fair average of the total amount of increased wages secured for the bituminous miners during the past year without strikes.

**MINERS**—(Gold, silver and copper)—Legislative means are employed to secure better terms and conditions, this method is found far more efficient than striking.

**MOLDERS**—Yearly agreements, defining minimum rates of wages, maximum hours, improved shop facilities and conditions less irksome to the molders is a small part of the advantages obtained without strife.

**OIL AND GAS WELL WORKERS**—Gained fifty cents a day of twelve hours, and labor day as a holiday and other minor concessions.

**PAINTERS**—As our organization grows and the employers

patience expands, we find strikes become less necessary, although they have been frequent in the past, many concessions were obtained during the past two year.

**PATTERN MAKERS**—Many strikes of a minor character took place in order to test the challenge "That pattern makers would not strike anyhow." Serious disputes have not been necessary; reasonable concessions have been secured easily by conferences.

**TELEGRAPHERS, (RAILROAD)**—Made enormous gains in the wages of members, hours should be reduced, have not materially shortened them yet, but have taken extra work off telegraphers which properly belonged to other labor, many disputes successfully adjusted.

**TRACKMEN, (RAILWAY)**—\$200,000 a year has been secured for the trackmen on five large railroad systems in the shape of increased wages, in addition to a reduction of hours, and pay for overtime which previously had not been granted.

**TAILORS**—Tendency is upward for better shop conditions, better pay and shorter hours, all the advantages which have been gained without strikes have not been reported to the general office. Bad news always travels faster and more directly than good news. Our records show that at least \$25,000 more wages are being paid tailors annually this year than last, for the same class and quantity of work.

**TIN PLATE WORKERS**—Reduced the hours of labor from twelve to ten per day.

**TOBACCO WORKERS**—As the demand for goods with our union label increases the necessity for our organization striking proportionately decreases, as a consequence wages are increased and hours reduced, with the assurance that shop conditions are healthy, and comfortable.

**TRUNK AND BAG WORKERS**—A few improvements in our general condition without striking have been conceded, which have been gratefully appreciated.

**TYPOGRAPHERS**—One hundred and sixty-five localities successfully reduced their working hours from fifty-nine and sixty per week to fifty-seven and fifty-four without strikes. Succeeded in unionizing and thereby humanizing several offices which had been non-union for years. Strikes with printers are getting rare.

ADVANTAGES GAINED BY RAILROAD ORGANIZATIONS DURING 1899 AND 1900—WITHOUT STRIKES.

The following is only a brief synopsis of what was accom-

plished by the different railroad organizations throughout the United States during 1899 and 1900, and refers to the trainmen and conductors in the main, and partially to the engineers and firemen. Other railroad employes, such as machinists, boilermakers, etc., are included in previous pages:

New schedule of wages for trainmen and yardmen, including regulation of hours and rules favorable to the men. Norfolk and Western Ry.

Full restoration of wage scale prior to reduction in 1894, for engineers, firemen, conductors and trainmen. Louisville and Nashville R. R.

Standard pay for trainmen and switchmen at Ogden, Utah, and Algiers, La. Southern Pacific R. R.

New schedule for increased wages; regulations of hours and rules favorable to employes. Viz. conductors, brakemen and yardmen. Cotton Belt R. R.

Eight-hour day for yard crews at Boston, Mass. New York, New Haven and Hartford R. R.

New schedule of wages, hours and rules secured favorable to yard employes on the whole system of the Colorado and Southern R. R.

New schedule of wages, hours and rules for conductors, brakemen and yardmen secured on the Santa Fe R. R. system.

New schedule of increased wages, regulation of hours and rules for conductors, brakemen and yardmen on the Southern California system.

Conductors and trainmen secured the establishment of a nine-hour day in through freight service and a new schedule of increased wages, with satisfactory rules for train and yard service, on the Canadian Pacific R. R.

Conductors and trainmen secured the ten-hour day for through and local freight service, a new schedule with material increase of pay and new rules for yard and train service, on the Delaware, Lackawanna and Western R. R.

Conductors and trainmen in train and yard service obtained new schedule of wages, hours and rules, to cover two years, on Mobile and Ohio R. R.

Trainmen secured new schedule of wages, hours and rules in their favor on Lake Shore and Michigan Southern R. R.

Conductors, baggagemen, trainmen and yardmen obtained fair increase of wages and schedule of ten hours in freight service, together with better rules, on Grand Trunk R. R.

New schedule of increased wages, better rules and regulated hours of service for conductors, brakemen and yardmen on Western New York and Pennsylvania R. R.

Conductors, trainmen, baggagemen and yardmen succeeded in establishing the ten hour day for through freight service, and pay for overtime was granted where no such pay had previously been allowed, together with material increase of wages on the Central Vermont R. R.

Trainmen, baggagemen and yardmen secured new schedule of wages, hours and rules favorable to men on Baltimore & Ohio R. R. system.

Conductors, trainmen and yardmen secured standard rate of pay in various localities on Kansas City, Pittsburg & Gulf R. R.

Conductors, baggagemen, trainmen and yardmen were conceded an increase of pay corresponding to schedule paid in 1893 on Cleveland, Cincinnati, Chicago & St. Louis R. R.

The ten hour day in yards, and eleven hour day in through freight service was secured together with increase of wages for trainmen, baggagemen and yardmen on the Boston & Maine R. R.

Restoration of wage scale prior to 1893, for conductors and trainmen on the Southern R. R. system.

Increased pay with other adjustments obtained by conductors and trainmen on Missouri, Kansas & Texas R. R.

New schedule with increased wages for conductors, trainmen, baggagemen and yardmen secured on the Maine Central R. R.

Joint schedule for increased wages for engineers, firemen, conductors and trainmen on the Wheeling & Lake Erie R. R.

New schedule and improved working conditions for conductors, brakemen and yardmen was obtained on the Pittsburg, Bessemer & Lake Erie R. R.

Old agreement revised with better rules governing service and material increase of pay at several points for conductors and trainmen on Illinois Central R. R.

Revised agreement for conductors, trainmen and yardmen with increase of pay to such employes on the Erie R. R. system.

Satisfactory adjustment of all grievances including allowance for overtime for all employes on Denver & Rio Grande R. R.

Reduction of length of work day in freight train service, and dinner hour conceded, with increased wages for yardmen at all points on the Pennsylvania R. R., east of Pittsburg and Erie.

Satisfactory adjustment of grievances affecting all classes of

labor in train service, including engineers, firemen, conductors, and trainmen on the Union Pacific R. R. system.

New schedule of wages, constituting a general increase combined with improved working conditions, for engineers, firemen, conductors, and trainmen on the Wabash R. R. system.

Revised agreement for conductors, trainmen and yardmen, giving increased wages, improved working conditions, and other important adjustments, secured on the Southern Pacific R. R. system.

Joint agreement for engineers, firemen, conductors, trainmen, and yardmen, giving increased wages, a ten-hour day in road and yard service, with extra pay for overtime not previously granted, on the Buffalo & Susquehanna, and Delaware & Hudson R. R.'s.

Revised agreement with increase of wages and improved regulation of hours for conductors, trainmen and yardmen, on the Michigan Central R. R.

Increased wages, the adoption of the ten-hour day in all yards and improved working conditions, secured for conductors and all yardmen, including pay for overtime not previously allowed, on the Missouri Pacific R. R.

Revised schedule of wages, constituting an increase for engineers and firemen, on the Chicago & North-Western and the Chicago, Milwaukee & St. Paul R. R. systems.

These favorable results are only a few of the many which have been secured by mutual conferences between the employes and the officials, and constitute only some of those which have been reported to the general officers of the organizations in question, during 1899 and 1903.

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## COST OF BUREAUS.

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## COST OF BUREAUS' OF LABOR STATISTICS.

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The support given a statistical bureau determines its real usefulness and a scant appropriation will certainly handicap the efforts of the best disposed official. It is entirely proper to show that where bureaus have been generously supported they have reached their greatest point of usefulness.

In this connection I give in the following tables the authorized expenditures of thirty one bureaus, including those of the province of Ontario and the Dominion of Canada. On the basis of per capita Iowa spends the least, viz: \$1.68 per thousand of population. The information contained in these tables has been obtained through correspondence with the different bureaus and from the laws governing the different bureaus.

Of the thirty-one bureaus reporting, twenty-three report factory inspection authorized by statute. Eight bureaus report as having no factory inspection laws. Sixteen bureaus report their factory inspection department as being under the supervision of and attached to bureau. Twenty-five bureaus report that either they do not have factory inspection or that that branch is managed independent of the bureau. Twenty-one bureaus report having authority to enforce demands. Eleven bureaus report as having no authority.

The aggregate appropriations for the thirty-one bureaus reporting amounts to \$527,197, an average for each bureau of \$17,006.35. The aggregate number of employes, including factory inspectors, for the thirty-one bureaus, is 389, an average of thirteen for each bureau.

The length of terms of office range from two to five years, and two bureau chiefs retain office *during good behavior*. One bureau five years; ten bureaus four years; sixteen bureaus two years; two bureaus three years. The salaries of commissioners range from \$1,000 to \$3,500.

## STATE BUREAUS OF LABOR STATISTICS OF THE DIFFERENT COMMONWEALTHS.

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NINTH BIENNIAL REPORT OF THE

[No. 19]

Marginal number.	STATE.	Number employed in bureau.	APPOINTMENT.			SALARIES.			GENERAL EXPENSE.		
			Commissioner.	Assistants.	Term of office.	Commissioner.	Deputy.	Clerks.	Office.	Traveling.	Printing.
1	California	5	By governor	By Com.	4 years.	\$3,000	\$1,800	\$2,500	\$600		\$625
2	Colorado	1	Sec'y of state		2 years.	1,800			400		
3	Connecticut	3	Governor	Commissioner	4 years.	5,000		4,600	2,000		
4	Illinois	3	Governor	Secretary	2 years.	1,200	None	No report	10,000 to 400	No report	No report
5	Indiana	3	Governor	None	4 years.	3,500	None	No report	1,400	No report	No report
6	Iowa	2	Governor	Commissioner	2 years.	1,500	1,000	None	All necessary	\$500	All necessary
7	Kansas	4	Elected	Elected	2 years.	1,500	1,200	1,520	800	1,500	No report
8	Kentucky	6	Elected	Commissioner	4 years.	On voucher	On voucher	On Voucher	On voucher	On voucher	On voucher
9	Louisiana	2	Governor	Commissioner	4 years.	1,500	1,000	None	1,000	None	No report
10	Maine	3	Governor	Commissioner	2 years.	1,500	No report	No report	2,000	No report	No report
11	Maryland	3	Governor	Commissioner	2 years.	No report	No report	No report	No report	No report	No report
12	Massachusetts	26	Governor	Commissioner	2 years.	No report	No report	No report	No report	No report	No report
13	Michigan	21	Governor	Commissioner	2 years.	2,000	1,500	No report		No report	No report
14	Minnesota	7	Governor	Commissioner	2 years.	2,500	1,500	2,000	No report	3,000	No report
15	Missouri	9	Governor	Commissioner	2 years.	No report	No report	No report	No report	No report	No report
16	Montana	2	Governor	Commissioner	4 years.	2,500	1,500	None	2,500		No report
17	Nebraska	3	Governor	Commissioner	2 years.	1,500	1,000	800	1,350	None	No report
18	New Hampshire	2	Governor	Commissioner	3 years.	1,500	1,000	None	800	None	None
19	New Jersey	6	Governor	Commissioner	5 years.	No report	No report	No report	No report	No report	No report
20	New York	59	Governor	Commissioner	3 years.	3,500	2,500	13,500	21,000	No report	5,000
21	North Dakota	2	Governor	Commissioner	2 years.		No report	No report	500	None	None
22	North Carolina	3	Elected	Commissioner	4 years.		No report		740	No report	No report
23	Ohio	5	Governor	Commissioner	2 years.	2,000	1,000	900	9,400	No report	No report
24	Pennsylvania	4	Sec'y of state	Commissioner	4 years.	No report	No report	No report	No report	No report	No report
25	Rhode Island	4	Labor Com.	Commissioner	2 years.	2,000	No report	No report		No report	No report
26	Tennessee	2	Governor	Commissioner	2 years.					No report	No report
27	Washington	2	Governor	Commissioner	4 years.	3,600	No report	No report		No report	No report
28	West Virginia	2	Governor	Commissioner	4 years.	1,200	None	500	1,800	No report	No report
29	Wisconsin	15	Governor	Commissioner	2 years.	2,000	1,500	2,700	2,400	All expense	No report
30	Canada	10	Gov. Gen'l.	Deputy minister	Good b'hr	No report	No report	No report	No report	No report	No report
31	Ontario	2	Lieut. Gov.	Deputy					600	No report	No report

## STATE BUREAUS OF LABOR STATISTICS OF THE DIFFERENT COMMONWEALTHS—CONTINUED.

[1902]

BUREAU OF LABOR STATISTICS.

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Marginal number.	STATE.	Authorized by statute.	Number of employees.	Whether attached to bureau.	Measure of authority.	SALARIES.		EXPENSE.		Total expense for bureau and factory inspector.	Amount of appropriation.
						Chief inspector.	Deputy.	Traveling.	Other.		
1	California	Yes		Yes	Statutory					\$ 8,545	
2	Colorado	No	No rep't	No	None					2,200	
3	Connecticut	Yes	3	No	Statutory	\$1,500	\$3,000	\$1,000			\$ 30,700
4	Illinois	Yes	14	Yes	Statutory	1,500	1,000	No Limit	7,500	31,010	
5	Indiana	Yes	4	No	Statutory	1,800	None	1,500.00	600		10,000
6	Iowa	Yes	2	Yes	None	None	None	None	None		3,000
7	Kansas	Yes	4	Yes	Statutory	None	None	None	None	6,520	
8	Kentucky	No	No rep't	No	None	None	None	None	None	13,000	
9	Louisiana	No	No rep't	No	None	None	None	None	None	3,500	
10	Maine	Yes	1	Yes	Statutory	No Report	No Report	No Report	No Report	5,000	
11	Maryland	No	No rep't	No	None	None	None	None	None	20,500	
12	Massachusetts	Yes	26	No	Police power	No Report	No Report	No Report	No Report	29,500	
13	Michigan	Yes	14	Yes	Statutory	No Report	No Report	No Report	No Report	12,200	
14	Minnesota	Yes		Yes	Police power	No Report	No Report	No Report	No Report	28,000	
15	Missouri	Yes	8	No	None	None	None	None	None	6,500	
16	Montana	No	No rep't	No	None	No Report	None	None	None	4,690	
17	Nebraska	No	No rep't	Yes	Statutory	None	None	None	None	20,500	
18	New Hampshire	No	No rep't	No	None	None	None	None	None		
19	New Jersey	Yes	7	No	Police Power	No Report	No Report	No Report	No Report	124,572	
20	New York	Yes	39	Yes	Police Power	No Report	No Report	No Report	None	4,000	
21	North Dakota	No	No rep't	No rep't	None	No Report	No Report	No Report	No Report	3,500	
22	North Carolina	No	No rep't	No	Police Power	2,000	13,800	7,100.00	6,100	29,000	15,290
23	Ohio	Yes	14	No	Police Power	1,800	1,100	No Report	70,800	33,500	
24	Pennsylvania	Yes	28	Yes	Statutory	No Report	No Report	No Report	No Report	5,000	
25	Rhode Island	Yes	2	Yes	Police Power	No Report	No Report	No Report	No Report	4,000	
26	Tennessee	Yes		Yes	None	No Report	No Report	No Report	No Report	6,200	
27	Washington	Yes		Yes	Police power	No Report	No Report	No Report	No Report	3,500	
28	West Virginia	Yes	1	Yes	Statutory	7,000	7,000	All Expenses	No Report	32,000	
29	Wisconsin	Yes	8	No	Police Power	No Report	No Report	No Report	No Report	50,000	
30	Canada	Yes	No rep't	No	No report	No Report	No Report	No Report	No Report	2,400	
31	Ontario	Yes	No rep't	No rep't	Police Power	No Report	No Report	No Report	No Report		

\*Salary of commissioner of the State of Missouri is not paid out of the \$28,000 appropriation, but from what is known as the "civil list."

An analysis of the foregoing table shows that the *California* bureau conducts factory inspection through the regular office force.

*Colorado* on the other hand has no factories to speak of and consequently no factory inspection.

*Connecticut*, with a total annual appropriation of \$31,700, covering all the phases of bureau work, devotes a great portion of its funds to factory inspection and the maintenance of "Free employment offices," which are managed directly by the bureau.

*Illinois* bureau is in charge of the secretary of the labor commissioners, who has supervision over the "Free employment offices" in Chicago and Peoria, as well as the factory inspection, in addition to the usual duties of the labor commissioner. This state spends \$10,000 for factory inspection, and \$10,400 in maintaining its "Free employment offices."

*Indiana* has two labor commissioners, two deputies and stenographers, and their factory inspection is conducted under the supervision of the bureau.

*Iowa* bureau has conducted factory inspection during the last biennial period, in addition to other duties.

*Kansas* elects its labor commissioner through an association of labor organizations called "The Society of Labor and Industry." The *Kansas* bureau conducts factory inspection in addition to its other duties.

*Kentucky* chooses its commissioner by popular vote and his duties consist mainly in gathering statistics of agriculture.

*Louisiana* bureau is of recent origin; as yet they have no factory inspection.

*Maine*, one of the oldest bureaus, has a comparatively small appropriation at its disposal.

*Maryland* has no factory inspection, the bureau devoting the time largely to statistical work.

*Massachusetts*, the best organized and equipped state bureau in the United States, shows what generous appropriations can do for an institution. Factory inspection is a separate department in that state.

*Michigan* has one of the best supported bureaus and time has proven the wisdom of their policy of liberality.

*Minnesota* bureau conducts factory inspection in addition to its purely statistical duties.

*Missouri's* bureau carries on factory inspection, and conducts

several "Free employment offices," which are becoming both useful and popular.

*Montana* bureau conducts a "Free employment office" in Helena, of which mention is made elsewhere in this report.

*Nebraska* bureau has for years conducted factory inspection together with its other duties.

*New Hampshire* bureau has no specific appropriation for its expenses. The salaries and office expenses of the bureau amount to \$3,300.

*New York* bureau conducts both factory inspection and "Free employment offices" and has much greater total appropriations than any other state in the union.

*North Dakota*, though a comparatively new state, grants its bureau a much larger appropriation than many of the older states.

*North Carolina* elects its labor commissioner by popular vote. The annual appropriation for its support is \$3,500.

*Ohio* has a separate factory inspection department aside from the bureau of labor statistics. The bureau has general supervision of the "Free employment offices," which are paid for by the municipalities in which they are located.

*Pennsylvania* bureau does not have charge of the factory inspection in the state, its duties being confined to statistical matters entirely.

*Rhode Island* has factory inspection in connection with the regular bureau work.

*Tennessee* bureau conducts factory inspection in connection with its regular bureau work.

*Washington* bureau has charge of both the factory inspection and the "Free employment offices" of the state.

*Wisconsin* has the most satisfactory factory inspection system from all reports, and their child labor and factory laws are models.

*Canada*. The Dominion appropriates \$50,000 a year for its bureau of labor statistics.

*Ontario* has factory inspection under the charge of the labor commissioner.

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STATUTORY INVESTIGATION.

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## STATUTORY INVESTIGATION—PART I.

## ADAMS COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899.	1900.	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile manufacturing .....	1	1	6	.....	6	6	.....	6
2	Coal mining .....	3	2	28	.....	28	16	.....	16
3	Hotel .....	1	1	3	.....	4	4	.....	4
	Total .....	5	4	37	.....	41	26	.....	29

## ALLAMAKEE COUNTY.

1	Button blanks.....	1	2	18	.....	18	50	.....	50
2	Carriage and wagon manufacturing .....	2	2	22	.....	22	24	.....	24
	Total .....	3	4	40	.....	40	74	.....	74

## APPANOOSE COUNTY.

1	Coal mining .....	23	23	1,426	.....	1,426	1,800	.....	1,800
2	General merchandise.....	2	1	14	.....	24	7	.....	11
3	Hotel .....	1	1	5	.....	6	4	.....	10
4	Laundry, steam.....	1	1	8	.....	3	0	.....	13
5	Newspaper and job printing.....	1	1	4	.....	5	6	.....	12
6	Wholesale merchandise, hardware and agricultural implements .....	1	4	12	.....	15	18	.....	20
	Total.....	29	31	1,460	.....	1,466	1,844	.....	1,867

## STATUTORY INVESTIGATION—PART II.

## ADAMS COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Brick and tile manufacturing .....	\$ 758	.....	\$ 758	\$ 1,175	.....	\$ 1,175	26	25	.....	.....	.....	.....
2	Coal mining .....	3,103	.....	3,103	2,800	.....	2,800	26	23	.....	.....	.....	.....
3	Hotel .....	576	.....	576	468	.....	468	52	52	.....	.....	.....	.....
	Total .....	\$ 4,437	\$ 814	\$ 5,358	\$ 4,935	.....	\$ 4,935	.....	.....	.....	.....	.....	.....

CAUSE OF INCREASE OR REDUCTION: 1 Demand for coal and organization of miners. 2 Over-production.

## ALLAMAKEE COUNTY.

1	Button blanks .....	\$ 4,000	.....	\$ 4,000	\$ 10,380	.....	\$ 10,380	32	50	.....	.....	.....	.....
2	Carriage and wagon manufacturing .....	6,636	.....	6,636	8,750	.....	8,750	50	52	.....	.....	.....	.....
	Total .....	\$ 10,636	.....	\$ 10,636	\$ 28,130	.....	\$ 28,130	.....	.....	.....	.....	.....	.....

## APPANOOSE COUNTY.

1	Coal mining .....	\$ 503,330	.....	\$ 503,330	\$ 652,230	.....	\$ 652,230	20	20	.....	.....	.....	.....
2	General merchandise.....	7,904	.....	7,904	2,880	.....	2,880	52	52	.....	.....	.....	.....
3	Hotel .....	540	.....	540	756	.....	756	52	52	.....	.....	.....	.....
4	Laundry, steam.....	730	.....	730	900	.....	900	24	24	.....	.....	.....	.....
5	Newspaper and job printing.....	2,000	.....	2,000	.....	.....	.....	52	52	.....	.....	.....	.....
6	Wholesale merchandise, hardware and agricultural implements .....	5,000	650	5,650	7,346	.....	7,346	52	52	.....	.....	.....	.....
	Total .....	\$ 519,504	\$ 5,040	\$ 524,544	\$ 663,612	.....	\$ 663,612	.....	.....	.....	.....	.....	.....

a Average b Includes board and room. c Separate accounts for males and females not reported.

CAUSE OF INCREASE OR REDUCTION: 1 Organization of labor and operators. 2 Miners organization insisted on increase. 3 Efficiency of help.

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## BENTON COUNTY.

Marginal number	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile manufactory	1	1	18		18	15		15
2	Canning factory, vegetables	1	1				44	39	83
3	General merchandise	1	1	6	2	8	6	3	9
4	Pearl button factory (n)	1	1						
5	Printing and publishing	1	1	5	1	6	5	1	6
	Total	3	4	29	3	32	70	43	113

n Not reported.

## BLACK HAWK COUNTY.

1	Agricultural implement manufactory	n	1				12		
2	Brick and tile works	1	1	15		15	22		22
3	Broom manufactories	n	1	30		70	284		239
4	Canning vegetables	1	3			100			523
5	Cement sidewalk contracting	n	1				5		5
6	Clothing manufactories, overalls, skirts	2	2	9		31	40	48	58
7	Cigar manufactory	1	2	9		12	10	3	13
8	Creamery supplies manufactories	1	3	50		50	51	3	50
9	Dry goods, notions, etc.	1	1	8		26	9		29
10	Egg case manufactory	1	1	4		24	4	13	17
11	Gas lighting and heating	1	1	5		5	2		2
12	Hardware and plumbing	1	2	12		13	6		6
13	Hotel	2	5	24	49	73	22	40	62
14	Laundry, steam	1	1	5	15	20	7	18	25
15	Life insurance	1	n	6	1	7			
16	Machine, engine, boiler and tank manufacturers	5	5	136	3	139	137	3	140

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## BENTON COUNTY.

Marginal number	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Brick and tile manufactory	\$ 2,826		\$ 2,826	\$ 3,097		\$ 3,097	26	40				
2	Canning factory, vegetables				10,120	\$ 1,567	17,687	*	30				
3	General merchandise	2,382	\$ 610	2,992	2,642	870	3,512	52	52			5.00	
4	Pearl button factory (n)												
5	Printing and publishing	1,800	200	2,000	1,900	450	2,350	52	52				
	Total	\$ 7,008	\$ 810	\$ 7,818	\$ 23,759	\$ 2,887	\$ 26,646						

n Not reported.

CAUSE OF INCREASE OR REDUCTION: / Slight increase to part of force account of efficiency. NUMBER WEEKS OPERATED: \* 4 full, 26 short.

## BLACK HAWK COUNTY.

1	Agricultural implement manufactory			\$ 9,318		\$ 9,318		40					
2	Brick and tile works	\$ 3,400		\$ 3,400	5,359		5,359	30	35				
3	Broom manufactory												
4	Canning vegetables	3,000	\$ 1,000	4,000	19,000	\$ 8,500	27,500	4	4	10.00			
5	Cement sidewalk contracting				1,120		1,120	28	28				
6	Clothing manufactories, overalls, skirts	4,800	4,700	9,500	2,940	5,362	8,302	46	26				
7	Cigar manufactory	4,200	600	4,800	4,400	450	4,850	52	52				
8	Creamery supplies manufactories	10,400		10,400	22,750	1,900	24,650	* 52	52				
9	Dry goods, notions, &c.	\$ 5,000	6,300	11,300	6,000	7,000	13,000	52	52				
10	Egg case manufactory			3,945			3,671	52	52				
11	Gas lighting and heating	1,700		1,700	1,000		1,000	52	52				
12	Hardware and plumbing			6,838	3,960		3,960	52	52			10.00	
13	Hotel	\$ 6,668	\$ 10,221	\$ 16,889	\$ 4,932	\$ 9,968	\$ 14,900	52	52	10.00			
14	Laundry, steam	2,200	3,200	5,400	2,500	4,000	6,500	52	52	5.00			
15	Life insurance	6,000	500	6,500				40				20.00	
16	Machine, engine, boiler and tank manfrs.	60,445	1,032	61,477	68,225	1,140	69,365	50	50	7.5		10.00	

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## BLACK HAWK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
		1899	1900	1899.			1900.		
				Males.	Females.	Total.	Males.	Females.	Total.
17	Mattress and furniture manufactory.....	1	2	6	3	9	6	6	12
18	Merchant tailoring.....	2	2	58	20	78	70	10	80
19	Milling, flour and grain.....	2	6	58	9	67	55	11	66
20	Newspapers, printing and publishing.....	4	6	35	1	36	38	2	40
21	Pork packing.....	1	1	137	2	139	154	1	155
22	Refrigerators, bank and store hard wood fixtures, manufactures.....	3	3	45	45	90	18	17	35
23	Sorghum manufactory.....	2	2	80	45	125	18	17	35
24	Telephone line and exchanges (local).....	1	1				15	1	16
25	Wholesale drugs.....	1	1				15		15
26	Wholesale fruits and commission.....	1	1				15		15
27	Wholesale groceries.....	4	2	89	7	96	48	6	54
	Total.....	42	50	821	298	1119	1066	441	1505

\* Not reported.

## BOONE COUNTY.

1	Blank book manufactory.....	1	1	20		7	5	12
2	Brick and tile manufactories.....	1	1	20		14		14
3	Coal mining.....	4	4	504		504		520
4	Dry goods.....	1	1	4	11	5	12	17
5	Electric power station.....	1	1	13	14	18	1	19
6	Glove manufactories.....	2		9	9	18		
7	Hardware and plumbing.....	1	1			9	1	10

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## BLACK HAWK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
17	Mattress and furniture manufactory.....	1,629	377	2,006				52					
18	Merchant tailoring.....				3,272	1,115	4,387	52	52			47	3.00
19	Milling, flour and grain.....	38,000	1,100	39,100	30,422	1,082	31,504	50	52				
20	Newspapers, printing and publishing.....	25,951	3,080	29,031	32,658	2,810	35,468	52	52			80	10.00
21	Pork packing.....	11,921	312	12,233	14,500	500	15,000	52	52	9	10.00		
22	Refrig'rs, bank & store hardw'd fixture, mfg	53,324	867	54,191	89,225	312	90,537	52	52	104	15.00		
23	Sorghum manufactory.....	1,500		1,500	1,900		1,900	4	4	114	10.00		
24	Telephone line and exchanges, local.....	35,000	9,000	44,000	10,800	4,080	14,880	52	52			12	20.00
25	Wholesale drugs.....				1,700	80	1,780	52	52				
26	Wholesale fruits and commission.....				8,500		8,500	52	52				
27	Wholesale groceries.....	74,621	1,390	76,021	37,788	2,518	40,306	52	52	2	2.5		
	Total.....	\$ 340,759	\$ 42,679	\$ 399,421	\$ 391,270	\$ 48,007	\$ 445,781						

\* Average. \* Board and room included. \* Separate accounts for males and females not reported. \* One establishment only.

CAUSE OF INCREASE OR REDUCTION: 1 General advance in wages. 2 General prosperity. 3 Demand for labor. 4 Good help scarce. 5 Efficiency. 6 By order of state insurance department. 7 Scarcity of skilled labor. 8 General advance in wages. 9 General advance of wages. 10 Demand by workmen.

11 General prosperity. 12 Higher prices in all lines. 13 Faithfulness.

NUMBER WEEKS OPERATED: \* 35 full, 17 short; † 37 full, 15 short; ‡ 40 full, 5 short; § 26 full, 26 short; || 40 full, 12 short; ¶ 36 full, 16 short; \*\* 40 full, 12 short; †† 29 full, 23 short.

## BOONE COUNTY.

1	Blank book manufactory.....				\$ 4,723	\$ 959	\$ 5,682	52				9	10.00
2	Brick and tile manufactories.....	\$ 5,000		\$ 5,000	4,500		4,500	30	30	12.00			
3	Coal mining.....	171,288		171,288	175,622		175,622	40	36	7	12.00		
4	Dry goods.....	2,220	\$ 3,000	5,220	2,640		3,075	52	52				
5	Electric power station.....	7,800	156	7,956	10,320	240	10,560	52		3	5.00		
6	Glove manufactories.....	3,200	2,000	5,200				52		4	10.00		
7	Hardware and plumbing.....				5,830	300	6,130	52	52				

STATUTORY INVESTIGATION—PART I—CONTINUED.  
BOONE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
8	Hotel.....	2	3	12	18	30	10	24	43
9	Laundry, steam.....	1	1	4	10	14	4	13	17
10	Merchant tailoring.....	1	1	10	10	20	6	2	8
11	Merchant milling.....	1	1	12	12	24	11	11	22
12	Newspaper, printing and publishing.....	1	2	35	1	36	8	10	18
13	Saddlery manufactory.....	1	n	35	1	36	8	10	18
	Total.....	16	17	623	50	673	621	68	689

n Not reported.

BREMER COUNTY.

1	Bakery and restaurant.....	1	n	2	6	8			
2	Creamery supplies.....	1	1	14	14	28	10	13	23
3	Furniture manufactory and job work.....	n	1	1	8	9	8	8	16
4	Brick and tile manufactory.....	n	1	1	12	13	12	12	24
	Total.....	2	3	16	6	22	36		36

n Not reported.

BUCHANAN COUNTY.

1	Cold storage and egg packing.....	1	1	35	35	70	16		16
2	Hotels and restaurants.....	2	2	9	16	25	8	17	25
3	Milling and grain.....	1	1	9	1	10	7	1	8
4	Planing mill, sash doors, etc.....	1	1	16	1	17	16	1	17

STATUTORY INVESTIGATION—PART II—CONTINUED.  
BOONE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
8	Hotel.....	\$ 2,470	\$ 2,000	\$ 4,470	\$ 4,548	\$ 4,428	\$ 8,976	52	52	550.00			
9	Laundry, steam.....	1,446	2,137	3,583	1,506	2,834	4,340	52	52	0 5.00			
10	Merchant tailoring.....	4,262		4,262	4,164	500	4,664	52	52	7 7.5			
11	Merchant milling.....	6,929		6,929	7,900		7,900	52	52	20.00			
12	Newspaper, printing and publishing.....				3,230	1,948	5,178	52	52			10 7.5	
13	Saddlery manufactory.....	20,361	360	20,721				52	52				
	Total.....	\$224,976	\$ 9,653	\$234,628	\$224,963	\$ 14,284	\$239,247						

a Average. b Includes board and room. CAUSE OF INCREASE OR REDUCTION: 1 Demanded by labor. 2 Labor organized. 3 Prosperity. 4 Plenty business. 5 Prosperity, we suppose. 6 More work to do. 7 Better times. 8 Increased cost of living. 9 Proficiency. 10 Increased efficiency.  
NUMBER WEEKS OPERATED: \* 36 full, 16 short.

BREMER COUNTY.

1	Bakery and restaurant.....	c	c	\$ 1,400				52					
2	Creamery supplies.....	\$ 4,500		4,500	\$ 3,200		\$ 3,200	40	40				
3	Furniture manufactory and job work.....				1,920		1,920	40	40				
4	Brick and tile manufactory.....				1,400		1,400	20	20				
	Total.....	\$ 4,500		\$ 5,900	\$ 6,520		\$ 6,520						

b Includes board and room. c Separate accounts for males and females not reported. NUMBER WEEKS OPERATED: \* 35 full, 4 short.

BUCHANAN COUNTY.

1	Cold storage and egg packing.....	\$ 5,281		\$ 5,281	\$ 4,120		\$ 4,120	52	52				
2	Hotels and restaurants.....	\$ 2,710	\$ 2,880	\$ 5,590	\$ 2,800	\$ 3,208	\$ 6,008	52	52				
3	Milling and grain.....	5,200	464	5,664	4,400	125	4,525	52	52				
4	Planing mill, sash doors, etc.....	5,296		5,296	5,788	464	6,252	52	52				

STATUTORY INVESTIGATION—PART I—CONTINUED.  
BUCHANAN COUNTY—CONTINUED.

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NINTH BIENNIAL REPORT OF THE

[No. 19

1902]

BUREAU OF LABOR STATISTICS

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Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
5	Transfer and transportation.....	1	1	6	.....	6	6	.....	6
5	Wholesale groceries.....	1	1	9	1	10	9	1	10
	Total.....	7	7	84	19	103	62	20	82

BUENA VISTA COUNTY.

1	Brick and tile works.....	1	1	7	1	8	4	12	15
2	General Merchandise.....	1	2	7	1	8	4	3	7
	Total.....	1	3	7	1	8	16	3	19

CARROLL COUNTY.

1	Hotels.....	2	3	11	17	28	19	28	47
2	Newspaper, printing, etc.....	1	1	1	1	1	1	1	1
3	Wholesale groceries.....	1	1	9	1	10	1	1	1
	Total.....	4	4	21	18	39	20	28	48

n Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.  
BUCHANAN COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males	Females.	Total.	Males.	Females.	Total	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
50	Transfer and transportation .....	2 687	.....	2 687	2 520	.....	2 520	52	52	.....	.....	.....	.....
	Wholesale groceries.....	6 000	480	6 480	6 000	300	6 300	52	52	7	5	.....	.....
	Total.....	\$ 27,174	\$ 4,224	\$ 31,398	\$ 25,628	\$ 4,097	\$ 29,725	.....	.....	.....	.....	.....	.....

Includes board and room. CAUSE OF INCREASE OR REDUCTION: Efficiency. NUMBER WEEKS OPERATED: \* 16 full, 32 short.

BUENA VISTA COUNTY.

1	Brick and tile works.....	.....	.....	.....	\$ 650	.....	\$ 650	20	52	.....	.....	.....	.....
2	General merchandise.....	\$ 3,380	\$ 285	\$ 3,665	\$ 5,850	\$ 1,040	\$ 6,890	52	52	.....	.....	.....	.....
	Total.....	\$ 3,380	\$ 285	\$ 3,665	\$ 6,500	\$ 1,040	\$ 7,540	.....	.....	.....	.....	.....	.....

CARROLL COUNTY.

1	Hotels.....	\$ 2,431	\$ 2,740	\$ 5,171	\$ 4,368	\$ 5,140	\$ 9,508	52	52	.....	.....	.....	.....
2	Newspaper, printing, etc.....	520	.....	520	360	.....	360	52	52	.....	.....	.....	.....
3	Wholesale groceries.....	11,000	350	11,350	.....	.....	.....	52	52	.....	.....	.....	.....
	Total.....	\$ 13,951	\$ 3,090	\$ 17,041	\$ 4,728	\$ 5,140	\$ 9,868	.....	.....	.....	.....	.....	.....

Includes board and room.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## CASS COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile works.....	1	1	.....	.....	.....	7	.....	7
2	Canning factories.....	1	1	200	100	300	200	150	350
3	Clothing, retail.....	1	1	7	2	9	.....	.....	.....
4	Dry goods, retail and groceries.....	1	1	8	5	13	15	15	30
5	General merchandise.....	1	2	6	2	8	.....	.....	.....
6	Hotel.....	1	1	2	5	7	1	5	6
7	Laundry, steam.....	1	1	.....	.....	.....	5	2	7
8	Planing mill, broom manufacturing and contracting.....	1	1	.....	.....	.....	23	.....	23
9	Printing, binding, publishing.....	2	2	9	1	10	17	.....	17
	Total.....	7	9	232	215	347	268	172	440
n. Not reported.									

## CEDAR COUNTY.

1	Brick and tile works.....	1	1	9	.....	9	10	.....	10
2	Lime manufacturing.....	1	1	10	.....	10	.....	.....	.....
	Total.....	2	2	19	.....	19	10	.....	10
n. Not reported.									

## CERRO GORDO COUNTY.

1	Brick and tile works.....	1	2	55	.....	55	85	.....	85
2	Cold storage and packing.....	1	1	10	.....	10	.....	.....	.....
3	Contracting and building.....	1	2	35	.....	35	32	.....	32

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## CASS COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
1	Brick and tile works.....				\$ 900		\$ 900		17				
2	Canning factories.....	\$ 15,000	\$ 5,000	\$ 20,000	5,500	\$ 2,500	8,000	24	130			20.00	
3	Clothing, retail.....	3,800	470	4,270				52		17.5			
4	Dry goods, retail, and groceries.....	2,912	1,344	4,256				52				3.00	
5	General merchandise.....	2,460	420	2,880	5,263	1,587	6,850	52	52				
6	Hotel.....	b 516	b 360	b 876	b 1,084	b 884	b 1,968	52	52			20.00	
7	Laundry, steam.....				2,000	500	2,500	52	52				
8	Planing mill, broom Mfg. and contracting.....				7,735		7,735	52	52				
9	Printing, binding, publishing.....	7,500	300	7,800	8,182		8,182	52	52				
	Total.....	\$ 32,188	\$ 7,894	\$ 40,082	\$ 30,664	\$ 5,471	\$ 36,135						

CAUSE OF INCREASE OR REDUCTION: 1 Scarcity of help. 2 Competency. 3 More business. 4 Better times. NUMBER WEEKS OPERATED: \* 12 full, 36 short. † 10 full, 36 short. ‡ 36 full, 16 short.

## CEDAR COUNTY.

1	Brick and tile works.....	\$ 2,200	.....	\$ 2,200	\$ 2,226	.....	\$ 2,226	30	32	.....	.....	.....	.....
2	Lime manufacturing.....	3,800	.....	3,800	.....	.....	.....	40	.....	.....	.....	.....	.....
	Total.....	\$ 6,000	.....	\$ 6,000	\$ 2,226	.....	\$ 2,226	.....	.....	.....	.....	.....	.....

## CERRO GORDO COUNTY.

1	Brick and tile works.....	\$ 32,051	.....	\$ 32,051	\$ 42,589	.....	\$ 42,589	52	52	10.00	.....	.....	.....
2	Cold storage and packing.....	6,077	.....	6,077	5,500	.....	5,500	52	52	.....	.....	.....	.....
3	Contracting and building.....	n	.....	n	11,400	.....	11,400	52	52	.....	.....	.....	.....

STATUTORY INVESTIGATION—PART I—CONTINUED.

CERRO GORDO COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
4	Dry goods, general merchandise	2	2	9	20	29	7	20	27
5	Electric power	1	1	17	17	34	11	21	32
6	Hotel	3	3	11	28	39	11	21	32
7	Laundry and dyeing	2	2	18	29	47	22	29	51
8	Printing and publishing	2	2	13	9	22	16	10	26
9	Sash, doors and interior fixture manufactory	1	1	24	4	28	26	3	29
10	Wholesale grocers	1	1	24	4	28	27	3	30
	Total	14	16	102	90	228	124	83	317

a Better times.

CHEROKEE COUNTY.

1	Brick and tile works	1	1	20	20	40	20	20	40
2	Hotel	2	2	4	12	16	20	20	40
	Total	3	3	24	32	56	40	40	80

n. Not reported.

CHICKASAW COUNTY.

1	Brick and tile works	1	1	8	8	16	8	8	16
2	Newspapers, printing and job work	n	1	2	2	4	3	3	6
3	Tow manufactory (flax)	1	1	10	10	20	10	10	20
	Total	2	2	10	10	20	13	13	26

n Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.

CERRO GORDO COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
4	Dry goods, general merchandise.....	4,677	3,900	8,577	3,596	6,368	9,964	52	52	..	..	..	..
5	Electric power.....	7,440		7,440				52	52	..	..	..	..
6	Hotel.....	3,626	5,762	9,388	3,056	3,410	6,466	52	52	..	..	..	..
7	Laundry and dyeing.....	7,722	6,417	14,139	11,548	6,168	17,716	52	52	10.00	..	..	..
8	Printing and publishing.....	6,240	3,252	9,492	4,440	1,536	5,976	52	52	15.00	..	25.00	..
9	Sash door and interior fixture manufactory..	24,900		24,900				52	52	..	..	15.00	..
10	Wholesale grocers.....		2,400	25,300	20,000	2,500	22,500	52	52	..	..	..	..
	Total.....	\$ 62,733	\$ 21,731	\$ 84,464	\$ 34,749	\$ 10,982	\$ 45,731			INCREASE OR REDUCTION: Increased demand for			

NUMBER WEEKS OPERATED: \* 40 full, 12 short. † 27 full, 23 short. ‡ 40 full, 12 short. CAUSE OF INCREASE OR REDUCTION: 1 Increased demand for help and increase in cost of living. 2 Efficiency and demand. 3 More and better work. 4 Earnings increased. 5 Skilled labor.

CHEROKEE COUNTY.

1	Brick and tile works	\$ 4,185		\$ 4,185	\$ 3,500		\$ 3,500	24	24	20.00			
2	Hotel	864	2,516	3,380				52	52				
	Total	\$ 5,049	\$ 2,516	\$ 7,565	\$ 3,500		\$ 3,500						

CAUSE OF INCREASE OR REDUCTION: 1 Mistaken prosperity. 2 Includes board and room.

CHICKASAW COUNTY.

1	Brick and tile works	\$ 1,600		\$ 1,600	\$ 800		\$ 800	11	7	5.00			
2	Newspaper, printing and job work				2,000		2,000		52				
3	Tow manufacturing (flax)				2,910		2,910		52				
	Total	\$ 1,600		\$ 1,600	\$ 5,710	\$ 300	\$ 6,010						

CAUSE OF INCREASE OR REDUCTION: 1 Apprentices out of time.

STATUTORY INVESTIGATION—PART I—CONTINUED

CLARKE COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Hotel.....	1	1	4	5	9	4	5	9
	Total.....	1	1	4	5	9	4	5	9

CLAY COUNTY.

1	Grain, hay and live stock.....	1	1	32		32	30	1	31
2	Hotel.....	1	1	4	12	16	4	10	14
	Total.....	2	2	36	12	48	34	11	45

CLAYTON COUNTY.

1	Brick and tile works.....	1	1	8		8	14		14
2	Bookbinding and printing.....	1	1	3		3	2		2
3	Lumber and planing mill.....	2	2	130	3	133	86	3	89
4	Pearl button works.....	1	1	1		1	50		50
	Total.....	4	5	141	3	144	152	4	156

11 Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.

CLARKE COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Hotel.....	\$ 1,208	\$ 746	\$ 1,954	\$ 1,208	\$ 746	\$ 1,954	52	52				
	Total.....	\$ 1,208	\$ 746	\$ 1,954	\$ 1,208	\$ 746	\$ 1,954						

1 Includes board and room.

CLAY COUNTY.

1	Grain, hay and live stock.....	\$ 15,285		\$ 15,285	\$ 14,700	\$ 360	\$ 14,660	52	52				
2	Hotel.....	\$ 768	\$ 1,820	\$ 2,588	\$ 850	\$ 2,000	\$ 2,850	52	52				
	Total.....	\$ 16,053	\$ 1,820	\$ 17,873	\$ 15,150	\$ 2,360	\$ 17,510						

1 Includes board and room.

CLAYTON COUNTY.

1	Brick and tile works.....	\$ 1,783		\$ 1,783	\$ 3,167		\$ 3,167	26	26	11.00		17.00	
2	Bookbinding and printing.....			2,000	650	\$ 598	1,248	52	52				
3	Lumber and planing mill.....	33,861		33,861	40,134	210	40,350	52	52			10.00	
4	Pearl button works.....				7,118		7,118	52	52				
	Total.....	\$ 35,644		\$ 37,644	\$ 51,069	\$ 814	\$ 51,883						

1 Includes board and room.

CAUSE OF INCREASE OR REDUCTION: 1 Increased demand for labor. 2 Scarcity of labor.

STATUTORY INVESTIGATION—PART I—CONTINUED.  
CLINTON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Bed spring manufacturing	1	n	24	1	25			
2	Brick and tile works	1	1	25		25			30
3	Boilers, tanks and sheet metal work	1	1	16		16			20
4	Box, crate and shook manufactory	2	2	116		116	105		105
5	Candy manufactory	1	1	3	3	6		3	7
6	Clothing, retail	3	3	21	2	23	22		24
7	Cracker and cake manufactory	1	1	18	14	32	20	18	38
8	Dry goods and general merchandise	4	4	48	48	96	55	63	118
9	Electric power, light and transportation	2	2	49	1	50	49		49
10	Engineering works, civil	1	1	11		11	7	2	9
11	Furniture manufactory	3	3	137	9	146	141	5	146
12	Hotel	3	2	18	35	53	13	23	36
13	Laundry, steam	1	1	5	20	25	5	25	30
14	Lumber and lath manufactory	3	3	890	3	890	841		841
15	Machine shops and foundries	2	2	18		18	22		22
16	Machine and structural iron works	1	1	152		152	155	1	156
17	Malting and brewing	1	1	12		12	13		13
18	Milling and grain	2	2	12		12	13		13
19	Millinery	1	1		6	6		5	5
20	Packers of meats	1	n	131		131			
21	Paper box and wooden ware manufactory	1	1	15	3	18	19	3	22
22	Printing, publishing and binding	3	3	60	10	70	62	11	73
23	Sash, door and blind manufactory	2	2	45	1	46	415		415
24	Saddlery and neck yokes manufactory	1	n	35		35			
25	Telephone exchange (local)	n	1						
26	Wagon manufactory	1	1	125		125	100	0	100
27	Water supply	1	1	7		7	7		7
28	Wholesale crockery and glassware	1	n	10	3	13			
29	Wholesale drugs	1	1	27		27	27		27
30	Wholesale fruits and produce	1	1	1		1	5	1	6
31	Wholesale groceries	1	1	4		4	9		9

STATUTORY INVESTIGATION—PART II—CONTINUED.  
CLINTON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING				
		1899.			1900.			1899.	1900.	1899.		1900.		
		Males	Females.	Total.	Males.	Females.	Total.			In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)	
1	Bed spring manufacturing.....	\$ 5,795	\$ 265	\$ 6,060				40						
2	Brick and tile works.....	7,500		7,500	5,400		5,400	28	23	15.00				
3	Boilers, tanks and sheet metal work.....	5,000		5,000	7,473		7,473	52	4					
4	Box, crate and shook manufactory.....	37,565		37,565	34,538		34,538	52	4	10.00				
5	Candy manufactory.....	\$ 680	\$ 480	\$ 1,160	\$ 480	\$ 468	\$ 948	52	52					
6	Clothing, retail.....	10,304	250	10,554	10,800	300	11,100	52	52					
7	Cracker and cake manufactory.....	14,507	3,093	17,600	14,685	3,837	18,522	52	51					
8	Dry goods and general merchandise.....	25,174	13,676	38,850	29,700	15,688	45,388	52	52					
9	Electric power, light and transportation.....	28,457	540	28,997	31,040		31,040	52	52					
10	Engineering works, civil.....	4,100	300	4,400	3,480	480	3,960	52	52	20.00				
11	Furniture manufactory.....	38,040	2,430	40,470	37,805	1,450	39,255	52	52					
12	Hotel.....	6,424	6,152	12,576	6,396	6,972	13,368	52	52					
13	Laundry, steam.....	2,600	6,000	8,600			6,000	52	52					
14	Lumber and lath manufactory.....	272,313	1,310	273,623	273,156		273,156	52	52	7.5				
15	Machine shops and foundries.....	8,700		8,700	9,800		9,800	52	52	10.00				
16	Machine and structural iron works.....	41,945		41,945	42,339	240	42,579	52	52	5.00				
17	Malting and brewing.....	7,496		7,496	8,309		8,309	52	52					
18	Milling and grain.....	6,600	300	6,900	6,640		6,640	52	52					
19	Millinery.....		1,400	1,400		1,000	1,000	52	52					
20	Packers of meats.....	20,270		20,270	27,363		27,363	52	52					
21	Paper box and wooden ware manufactory.....	6,520	480	7,000	7,000	600	7,600	52	52					
22	Printing, publishing and binding.....	17,086	6,761	23,847	31,084	4,733	35,817	52	52					
23	Sash, door and blind manufactory.....	157,834	455	158,289	169,600		169,600	52	52					
24	Saddlery and neck yokes manufactory.....	12,719		12,719				52	52					
25	Telephone exchange (local).....				1,500	1,500	3,000	52	52					
26	Wagon manufactory.....	43,782		43,782	39,380		39,380	47	47	12.5		14.00		
27	Water supply.....	4,920		4,920	4,980		4,980	52	52					
28	Wholesale crockery and glassware.....	5,000	570	5,570				52	52					
29	Wholesale drugs.....	39,100		39,100	34,495		34,495	52	52					
30	Wholesale fruits and produce.....	2,601	275	2,876	2,075	250	2,325	52	52					
31	Wholesale groceries.....	11,237		11,237	11,541		11,541	52	52					

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## CLINTON COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
32	Wholesale and retail hardware.....	2	2	24	3	27	23	3	26
33	Wood, coal and building material.....	#	2				15	1	19
	Total.....	50	48	2,512	171	2,683	2,199	172	2,371

# Average. n Not reported.

## CRAWFORD COUNTY.

1	Brick and tile works.....	1	1	13		13	13		13
2	Hotel.....	1	1	2	9	11	7	2	9
	Total.....	2	2	15	9	24	20	2	22

## DALLAS COUNTY.

1	Brick and tile works.....	3	2	50		50	41		41
2	Coal mining.....	2	1	44		44	22		22

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## CLINTON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
32	Wholesale and retail hardware. ....	14,000	1,140	15,140	12,656	1,118	13,774	52	52				
33	Wood, coal and building material. ....				7,155	420	7,573		52				
	Total .....	\$ 856,369	\$ 44,870	\$ 901,248	\$ 811,711	\$ 35,660	\$ 887,371						

a Average. b Includes board and room. c Separate accounts for males and females not reported. d One establishment.

CAUSE OF INCREASE OR REDUCTION: 1 Better demand for labor and product. 2 Better business, scarcity of help. 3 Trifling increase in business. 4 Better demand. 5 Better prices and demand. 6 Better business. 7 Hard to get material. 8 More business. 9 Increased business. 10 Other concerns increased wages. 11 Efficiency. 12 In one house greater proficiency. 13 Prosperity and demand by labor. 14 Increased demand. 15 Reduction in business. NUMBER WEEKS OPERATED: \* 9 full, 17 short. † 20 full, 32 short. ‡ 25 full, 20 short. § 22 full, 32 short. || 36 full, 20 short. ¶ 36 full, 12 short. \*\* 40 full, 12 short. †† 30 full, 20 short. ‡‡ 24 full, 28 short. §§ 36 full, 16 short. ||| 40 full, 12 short. ¶¶ 26 full, 26 short. §§ 30 full, 22 short. g 42 full, 10 short. h\*\* 28 Full, 24 short. ††† 24 Full, 28 short. ‡‡‡ 25 Full, 27 short. §§§ 40 Full, 12 short. ¶¶¶ 30 Full, 17 short.

## CRAWFORD COUNTY.

1	Brick and tile works.....	\$ 3,097		\$ 3,097	\$ 2,800		\$ 2,800	30	26	12.5			
2	Hotel.....	\$ 540	\$ 1,260	\$ 1,800			\$ 1,800	52					
	Total.....	\$ 3,637	\$ 1,260	\$ 4,897	\$ 2,800		\$ 4,600						

b Includes board and room. c Separate accounts for males and females not reported.

† Greater demand for labor.

## DALLAS COUNTY—CONTINUED.

1	Brick and tile works.....	\$ 13,506		\$ 13,506	\$ 11,610		\$ 11,610	a 30	30	12.5		0 7.5	
2	Coal mining.....	13,247		13,247	9,412		9,412	a 50	32	10.		2 10.00	

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## DALLAS COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
2	General merchandise.....	2	1	4	.....	4	3	.....	3
4	Milling and grain.....	2	2	13	.....	13	13	.....	13
	Total.....	9	6	111	.....	111	70	.....	79

## DELAWARE COUNTY

1	Carriages and wagon manufactory.....	1	1	10	.....	10	12	.....	12
2	Cigar manufactory.....	1	1	8	.....	8	7	.....	7
3	Fence manufactory.....	1	1	2	.....	2	6	.....	6
4	General merchandise.....	1	1	10	.....	10	13	.....	13
5	Manufactory of woollens.....	1	1	7	.....	7	7	.....	7
	Total.....	4	4	35	.....	35	36	.....	36

## DES MOINES COUNTY.

1	Bakery, bread and cakes.....	1	1	10	.....	10	12	.....	12
2	Basket manufactory.....	1	1	65	.....	65	60	.....	60
3	Beer brewery.....	1	1	40	.....	40	7	.....	7
4	Broom manufactory.....	1	1	21	.....	21	22	.....	22
5	Butter and egg cold storage.....	1	1	8	.....	8	9	.....	9
6	Casket and coffin manufactory.....	1	1	28	.....	28	33	.....	33

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## DALLAS COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	General merchandise .....	2,130	.....	2,130	1,680	.....	1,680	52	52	47.5	.....	16.00	.....
4	Milling and grain .....	7,192	.....	7,192	9,438	.....	9,438	52	52	10.00	.....	10.00	.....
	Total .....	\$ 36,075	.....	\$ 36,075	\$ 32,130	.....	\$ 32,130	.....	.....	.....	.....	.....	.....

a Average. b One establishment only.  
 CAUSE OF INCREASE OR REDUCTION: 1 Better business, felt like giving it. 2 Better demand. 3 Increased business. 4 Greater efficiency and increased cost in living. NUMBER WEEKS OPERATED: \*40 full, 10 short.

## DELAWARE COUNTY.

1	Carriage and wagon manufactory.....	\$ 5,000	.....	\$ 5,000	\$ 4,940	.....	\$ 4,940	52	52	.....	.....	.....	.....
2	Cigar manufactory.....	4,000	800	4,800	3,500	.....	3,500	52	52	.....	.....	.....	.....
3	Fence manufactory.....	5,360	540	5,900	2,808	.....	2,808	52	52	.....	.....	.....	.....
4	General merchandise.....	1,970	1,430	3,400	1,970	1,450	3,420	52	52	10.00	.....	.....	.....
	Total.....	\$ 16,330	\$ 2,570	\$ 18,900	\$ 13,218	\$ 1,450	\$ 14,668	.....	.....	.....	.....	.....	.....

CAUSE OF INCREASE OR REDUCTION: 1 General prosperity. Greater demand for labor.  
 NUMBER WEEKS OPERATED: \*26 full, 26 short. †37 full, 15 short.

## DES MOINES COUNTY.

1	Bakery, bread and cakes.....	\$ 4,000	\$ 300	\$ 4,300	\$ 20,000	\$ 17,000	\$ 37,000	52	52	2.5	.....	.....	.....
2	Basket manufactory.....	5,300	.....	5,300	4,910	.....	4,910	52	52	.....	.....	.....	.....
3	Beer brewery.....	5,000	150	5,150	.....	300	4,300	49	52	.....	.....	.....	.....
4	Broom manufactory.....	3,000	.....	3,000	.....	.....	.....	52	52	25.00	.....	.....	.....
5	Butter and egg cold storage.....	14,025	.....	14,025	.....	.....	.....	52	52	.....	.....	.....	.....
6	Casket and coffin manufactory.....	.....	.....	.....	.....	.....	.....	52	52	.....	.....	.....	.....

STATUTORY INVESTIGATION—PART I—CONTINUED.  
DES MOINES COUNTY—CONTINUED.

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Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
8-7	Cigar manufactory	3	3	66		66	51	7	58
9	Clothing, retail and tailoring	5	4	74		74	41		41
10	Cask and barrel manufactory	1	1	10		10	15		15
11	Cracker and candy manufactory	2	2	41	38	79	37	25	62
12	Contractor (building)	1	1	7		7	5		5
13	Crate and box manufactures	1	1	7		7	6		6
14	Drugs (retail) and wholesale	2	2	29		29	30		30
15	Dry goods and millinery	3	3	42	20	71	43	30	73
16	Furniture, retail	2	H	14	2	16			
17	Furniture manufactory	2	2	173	9	182	161	11	172
18	Foundry and machine works	1	1	275		275	350	2	352
19	Gas manufactory	1	1	40		40	25		25
20	Grocers, retail	1	1	8		8	9		9
21	Grocers, wholesale	4	3	99	12	111	85	11	96
22	Hotels and restaurants	11	9	96	100	196	67	58	125
23	Laundry	1	1	5	7	12	3	9	12
24	Livery and undertaking	1	1	7		7			7
25	Lumber, lath and shingles manufactory	3	3	341		341	282		282
26	Milling—grain, flour etc.	1	1	18		18	20		20
27	Packers, meats	1	1	15	1	16	15		15
28	Painting and decorating	H	H	10		10			
29	Pickle and vinegar manufactory	1	1	15	25	40			
30	Printing, publishing and binding	3	2	50	8	58	60		60
31	Paper and box manufactory	1	1	7	13	20	6	17	23
32	Saddlery and leather goods manufactory	1	1	73	2	75	74	2	76
33	Sash, doors and office fixture manufactory	2	2	162		162	156		156
34	Shirt and overall manufactory	1	1	5	45	50			45
35	Soap manufactory	1	1	18	6	24	20	6	26
36	Steam fitting and plumbing	3	3	20		20	17		17
37	Wagon manufactory	2	2	132		132	140		140
38	Water supply	1	1	15		15	14		14

STATUTORY INVESTIGATION—PART II—CONTINUED.  
DES MOINES COUNTY—CONTINUED.

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DES MOINES COUNTY—CONTINUED.													
Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
8-7	Cigar manufactory	30,800		30,800	30,800	1,050	31,850	52	52	3 2.00		4 10.00	
9	Clothing, retail and tailoring	44,892		44,892	17,453		17,453	52	52	5 7.5			
10	Cask and barrel manufactory	5,350		5,350	7,300		7,300	52	52	6 2.00		7 10.00	
11	Cracker and candy manufactory	25,360	6,060	31,420	20,460	5,018	25,478	52	52				
12	Contractor (building)	2,500		2,500	3,500		3,500	52	52			8 5.00	
13	Crate and box manufactures	3,120		3,120	3,500		3,500	52	52	0 5.00			
14	Drugs (retail) and wholesale	21,000	1,000	22,000	22,600	1,000	23,600	52	52	2 2.50			
15	Dry goods and millinery	26,812	7,220	34,032	23,350	7,170	30,520	52	52				
16	Furniture, retail	8,347		8,347	9,227		9,227	52	52				
17	Furniture manufactory	\$ 143,564		\$ 143,564	175,200	940	176,200	52	52			7 5	10 10.00
18	Foundry and machine works	15,297		15,297	14,224		14,224	52	52	10 20.00		10 3.00	
19	Gas manufactory	3,016		3,432	3,060	494	3,554	52	52	2 2.00			
20	Grocers, retail	63,562	4,820	68,382	62,628	3,103	65,731	52	52	27 95.2			
21	Grocers, wholesale	6 10,325	6 10,325	6 27,150	6 10,278	6 11,674	6 27,952	52	52				
22	Hotels and restaurants	2,400	1,500	3,900	1,500	2,800	4,300	52	52				
23	Laundry	2,506		2,506	3,300		3,300	52	52			110 10.00	
24	Livery and undertaking	120,036		120,036	115,320		115,320	52	52				
25	Lumber, rail and shingles manufactory	12,538		12,538	10,285		10,285	52	52	12 10.00			
26	Milling—grain, flour, etc.	9,282	520	9,802	8,528	520	9,048	52	52				
27	Packers, meats	2,600		2,600				52	52				
28	Painting and decorating			8,980				52	52				
29	Pickle and vinegar manufactory			37,768	32,480	1,575	34,055	52	52	13 2.00			
30	Printing, publishing and binding	35,620	2,148	37,768			34,055	52	52	14 2.00			
31	Paper and box manufactory			5,000		700	34,900	52	52	15 2.5			
32	Saddlery and leather goods manufactory	34,000	750	34,750	34,800	59,885	59,885	52	52	16 13.00			
33	Sash, doors and office fixture manufactory	56,664		56,664	59,885		59,885	52	52				
34	Shirt and overall manufactory	1,940	7,200	9,140	1,732	8,060	9,792	52	52	17 2.00		18 10.00	
35	Soap manufactory			12,150	10,797		10,797	52	52				
36	Steam fitting and plumbing	57,500		57,500	57,225		57,225	52	52	10 2.5			
37	Wagon manufactory	9,600		9,600	9,291		9,291	52	52				
38	Water supply							52	52				

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## DES MOINES COUNTY—CONTINUED.

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NINTH BIENNIAL REPORT OF THE

[No. 19

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BUREAU OF LABOR STATISTICS.

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Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
38	Wholesale carpets and curtains .....	1	"	13	3	16			
39	Wholesale dry goods and notions .....	1	1	9		10			
40	Wholesale fruits and produce .....	2	2	20	3	29	7	1	8
41	Wholesale hardware and manufacturers .....	2	3	33	3	36	35	3	38
42	Wholesale liquors and ice .....	1	1	10		10	54		57
43	Wholesale millinery .....	1	"	5	2	7	15		15
44	Wholesale poultry and eggs .....	1	1	40		40			
	Total .....	79	66	2,164	360	2,524	1,976	298	2,275

a Average. b Includes board and room. c Separate accounts for males and females not reported. n Not reported.

## DICKINSON COUNTY.

1	Hotel .....	1	"	18	22	40			
	Total .....	1	"	18	22	40			

n Not reported.

## DUBUQUE COUNTY.

1	Belting and rubber manufactory .....	1	"	6		6			
2	Beer brewing and bottlers .....	1	1	110		110	125		125
3	Books and music, retail .....	1	1	7	3	10	9	3	12

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## DES MOINES COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
38	Wholesale carpets and curtains .....	6,060	1,118	7,178				52					
39	Wholesale dry goods and notions .....	6,752	920	7,672	5,837	900	6,737	52	52				
40	Wholesale fruits and produce .....	10,000	1,632	20,632	21,590	1,730	24,320	52	52	2.5			
41	Wholesale hardware and manufacturers .....	18,164	1,848	20,012	33,071	1,368	34,439	52	52	200.5			
42	Wholesale liquors and ice .....	5,200		5,200	7,253		7,253	52	52				
43	Wholesale millinery .....	4,400	850	5,250				52					
44	Wholesale poultry and eggs .....	15,000		15,000	15,000		15,000	52	52				
	Total .....	\$ 828,397	\$ 49,616	\$ 1,035,778	\$ 910,904	\$ 67,724	\$ 908,150						

a Average. b Includes board and room. c Separate accounts for males and females not reported. n Not reported. o One establishment only. CAUSE OF INCREASE OR REDUCTION: 1 Help more efficient. 2 Heavier production. 3 Better business. 4 Help struck for more and paid more. 5 Efficiency of help. 6 Better demand. 7 To stimulate help to do more. 8 Better prices. 9 Better business. 10 Cutting out non-paying departments. 11 Men hard to get. 12 Better prices for goods. 13 Increased business. 14 Rapid work. 15 Better trade conditions. 16 Increased cost of living. 17 Proficiency. 18 A union. 19 Better times. 20 Increased business. NUMBER WEEKS OPERATED: \* 30 full, 22 short † 36 full, 16 short. ‡ 40 full, 12 short § 26 full, 26 short. || 36 full, 16 short. ¶ 14 full, 38 short. \*\* 46 full, 6 short. †† 50 full, 2 short. ‡‡ 40 full, 12 short. §§ 48 full, 4 short. ||| 46 full, 10 short. ¶¶ 26 full, 26 short.

## DICKINSON COUNTY.

1	Hotel .....	\$ 1,500	\$ 1,000	\$ 2,500				8					
	Total .....	\$ 1,500	\$ 1,000	\$ 2,500									

b Includes board and room.

## DUBUQUE COUNTY.

1	Belting and rubber manufactory .....	\$ 4,556		\$ 4,556				52		11.00			
2	Beer brewing and bottlers .....	75,000		75,000	80,000		80,000	52	52				
3	Books and music, retail .....	3,600	\$ 1,200	4,800	3,500	\$ 1,500	5,000	52	52	5.00			

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## DUBUQUE COUNTY—CONTINUED.

Marginal number	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
				1899.			1900.			
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.	
4	Brick and tile works	3	3	59		59	55		55	85
5	Broom manufactory	1	1	17	3	20	17	1	18	18
6	Cake and cracker bakery	1	2	20	9	29	35	15	50	40
7	Carbonated drink manufactory	1	"	5		5				
8	Carriage, wagon and sleigh manufactory	3	3	439		439				
9	Casket and coffin manufactory	2	2	130	3	133	484	9	493	493
10	Coal, retail, transfer and contracting	2	2	74	21	95	138	23	161	161
11	Confectionery manufactory	1	1	20	30	50	25	35	60	81
12	Coffee and spice manufactory	1	1	19		19	17	1	18	18
13	Cigar manufactory	2	1	5	90	95	5	90	95	95
14	Cigars and tobacco, wholesale	2	2	32	10	42	34	12	46	46
15	Clothing, custom and ready made	4	4	36	4	40	30	3	33	33
16	Cooperage manufactory	1	"	18		18				
17	Contractors, building material	1	3	16		16	56		56	74
18	Dry goods, retail	4	4	40	67	107	40	72	112	112
19	Electric power, light and transportation	2	1	95	1	96	106		106	106
20	Furnishings, domestic, retail	1	1	4	12	16	3	13	16	16
21	Furniture manufactory	2	2	97		97	122		122	122
22	Foundry and machine shops	4	3	145	6	151	174	7	181	181
23	Gas and coke manufactory	1	1	55		55	44	1	45	45
24	Grocery, retail	1	"	5		5				
25	Grocery, wholesale	3	3	68	7	75	68	6	74	74
26	Hotel	3	4	44	65	109	49	71	120	120
27	Laundry	3	3	6	17	23	6	18	24	24
28	Lumber manufactory	4	1	350		350	350		350	350
29	Mattress, spring bed, manufactory	1	1	33	6	39	40	6	46	46
30	Milling, flour and grain	1	1	30		30				
31	Overall and men's furnishings manufactory	3	4	147	686	833	145	555	700	700
32	Printing and publishing, binding, etc.	6	7	193	12	205	231	21	252	252
33	Saddlery and leather manufactory	1	1	18	2	20	21	2	23	23

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# STATUTORY INVESTIGATION—PART II—CONTINUED.

## DUBUQUE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
4	Brick and tile works	12,825		12,825	12,203		12,203	26	26	5.00		7	10.00
5	Broom manufactory	8,700		8,700	8,104		8,104	50	50	8.00			
6	Cake and cracker bakery	12,285	3,752	15,837	21,403	4,060	25,463	52	52	5.00			
7	Carbonated drink manufactory	2,000		2,000				52	52				
8	Carriage, wagon and sleigh manufactory	86,304	1,014	87,318	104,357	3,106	107,463	52	52	5.00		5	5.00
9	Casket and coffin manufactory	56,762	5,000	61,762	58,557	5,110	63,667	52	52	18.00			
10	Coal, retail, transfer and contracting	28,367		28,367	34,080		34,080	52	52	7.50			
11	Confectionery manufactory	11,000	4,500	15,500			13,000	50	50	50.00			
12	Coffee and spice manufactory	14,735		14,735	10,553		11,033	52	52	2.00			
13	Cigar manufactory	5,080	12,480	17,560	3,235	14,000	17,235	52	48				
14	Cigars and tobacco, wholesale	30,093	2,197	32,290	32,112	2,348	34,460	52	50	10.00			
15	Clothing, custom and ready made	16,000	1,000	17,000	15,441	800	16,241	50	50				
16	Contractors, building material	17,000		17,000	34,536		34,536	10	10				
17	Cooperage manufactory	7,225		7,225				47	47				
18	Dry goods, retail	21,260		21,260	30,820	23,960	44,780	52	52	11.00			
19	Electric power, light and transportation	37,013	600	37,613	52,352		52,352	52	52	12.00			
20	Furnishings, domestic, retail	884	1,723	2,607	988	1,700	2,688	52	52				
21	Furniture manufactory	45,676		45,676	55,517		55,517	48	48	15.00			
22	Foundry and machine shops	66,501	1,719	68,220	82,001	2,444	84,445	52	52				
23	Gas and coke manufactory	31,000		31,000	30,000	500	30,500	52	52				
24	Grocery, retail	2,008	300	2,308				52	52				
25	Grocery, wholesale	83,301	3,327	86,628	88,403	2,898	91,301	52	52	14.00			
26	Hotel	14,560	9,912	24,472	18,380	12,252	30,632	52	52				
27	Laundry	2,016	4,762	6,778	3,204	6,398	9,602	52	52				
28	Lumber manufactory	124,281		124,281	116,537		116,537	52	52	12.5		14	35.00
29	Mattress, spring bed, manufactory			14,804			15,500	52	52	2.00			
30	Milling, flour and grain	10,562		10,562	445		445	52	52				
31	Overall and men's furnishings manufactory			213,947	78,090	140,608	219,597	52	52				
32	Printing and publishing, binding, etc.	65,712		65,712	92,005	4,816	96,821	52	52	10.00			
33	Saddlery and leather manufactory			4,910	6,000		6,000	52	52				

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# STATUTORY INVESTIGATION—PART I—CONTINUED.

## DUBUQUE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
34	Sash, door and fixture manufactory.....	2	2	450		450	450	0	450
35	Soap manufactory.....	1	1	19	4	23	25	6	31
36	Shoe manufactory.....	1	1	31	20	51	30	17	47
37	Steam fittings manufactory.....	1	1	216	1	217			
38	Stoves and tinware manufactory.....	1	1	7		7	6		6
39	Vinegar and pickle manufactory.....	1	1	10	1	11	10	1	11
40	Water supply.....	1	1				16		16
41	Wholesale boots and shoes.....	1	1	17	1	18	17	1	18
42	Wholesale crockery and glassware.....	1	1	17	4	21	18	3	21
43	Wholesale drugs.....	1	1				20		20
44	Wholesale fruits and commission.....	1	1				23	2	25
45	Wholesale hardware.....	1	1				24	3	27
46	Wholesale liquor.....	1	1	26	3	29	23	2	25
47	Wholesale meats.....	1	1	6		6	8		8
48	Wholesale notions.....	1	1	7		7	6		6
49	Wholesale paper and fancy goods.....	1	1	18	1	19	18	1	19
	Total.....	82	88	3,189	1,098	4,287	3,182	1,000	4,182

# not reported.

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## DUBUQUE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
34	Sash, door and fixture manufactory .....	153,379		153,379	180,000		180,000	52	50	10 10.00			
35	Soap manufactory .....	5,455	832	6,287	11,443	980	12,423	52	52				
36	Shoe manufactory .....	12,171	3,188	15,359	12,700	3,580	16,280	52	44				
37	Steam fittings manufactory .....	84,792	540	85,332				51	77	2 00			
38	Stoves and tinware manufactory .....	3,086		3,086	3,630		2,630	52	52				
39	Vinegar and pickle manufactory .....	\$ 0,266	\$ 720	\$ 0,986	\$ 0,508	\$ 520	\$ 7,028						
40	Water supply .....				14,000		14,000		52				
41	Wholesale boots and shoes .....	8,500	600	9,100	6,500	600	7,100	52	52				
42	Wholesale crockery and glassware .....	8,820	914	9,734	0,295	862	10,157	52	52				
43	Wholesale drugs .....				14,076		14,076		52				
44	Wholesale fruits and commission .....				18,420	1,120	19,540		52				
45	Wholesale hardware .....	18,702	1,300	20,002	18,122	1,382	19,504	52	52				
46	Wholesale liquor .....	7,240		7,240	8,880		8,880	52	52				
47	Wholesale meats .....	4,800		4,800	5,432		5,432	52	52				
48	Wholesale notions .....	3,080	360	3,440	3,570	360	3,930	52	52	18 10.00			
49	Wholesale paper and fancy goods .....	10,000	650	10,650	11,000	650	11,650	52	52	10 10.00			
	Total .....	\$1,225,916	\$ 87,464	\$1,546,947	\$1,387,900	\$ 237,814	\$1,621,054						

a Average. b Includes board and room. c Separate account for males and females not reported. # Not reported. o One establishment only.

NUMBER WEEKS OPERATED: \* 44 full, 6 short. † 46 full, 2 short. ‡ 26 full, 26 short. § 40 full, 12 short. || 28 full, 24 short. ¶ 26 full, 26 short. \*\* 40 full, 12 short. †† 30 full, 22 short. ‡‡ 40 full, 12 short. §§ 32 full, 12 short. ||| 32 full, 12 short.

CAUSE OF INCREASE OR REDUCTION: 1 Decrease in sales. 2 Better business. 3 Demanded by labor. 4 McKinley confidence and protection. 5 Demand for labor, efficiency and good will. 6 Adoption of piece work. 7 No particular cause. 8 Nominal business increase. 9 Better help. 10 Faithful service. 11 Faithful service. 12 Scarcity of labor. 13 Increased business, better profits. 14 No raw material. 15 Demand for nine hours. 16 Old wage scale asked for. 17 Seniority. 18 Better business. 19 Increase of work. 20 Nine hour day obtained.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## EMMET COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Butter tub and creamery supply manufactory.....	n	1						
2	Grain and general merchandise.....	1	n	7			15		15
3	Hardware and plumbing, retail.....	1	n	7					
4	Laundry, steam.....	1	1	2	3	5	2	3	5
5	Produce and general merchandise.....	1	1	8			8	4	12
	Total.....	4	3	24	4	28	25	7	32

n Not reported.

## FAYETTE COUNTY.

1	Canning vegetables.....	1	1	100	100	200	150	150	300
2	Hotel.....	3	2	8	23	31	5	18	23
	Total.....	4	3	108	123	231	155	168	323

## FLOYD COUNTY.

1	Bank, store and office fixtures.....	1	1	34		34	36		36
2	Farm machine manufactory.....	1	2	9		9	13		13
3	Nursery and seed.....	1	2	40		40	47		47
4	Sash, doors and moulding manufactory.....	1	1	21		21	22		22
5	Telephone exchange.....	1	n	5	3	8			
	Total.....	5	6	115	3	118	118		118

n Not reported.

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## EMMET COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Butter tub and creamery supply manufg ....	n	n	\$ 1,682	n	n							
2	Grain and general merchandise .....	\$ 1,682		\$ 1,682				52		10.00			
3	Hardware and plumbing, retail .....	3,037	\$ 240	3,277				52		10.00			
4	Laundry, steam .....	520		520	\$ 520	\$ 550	1,070	52					
5	Produce and general merchandise .....	3,780		3,780	c	c	4,000	52		20.00		2.5	
	Total .....	\$ 9,019	\$ 812	\$ 9,831	\$ 520	\$ 550	\$ 5,070						

n Not reported.

NUMBER WEEKS OPERATED: \* 31 full; 21 short. † 30 full; 22 short.

CAUSE OF INCREASE OR REDUCTION: / General raise of other commodities. a Better class of labor. g Demand by labor.

## FAYETTE COUNTY.

1	Canning vegetables.....	\$ 7,300	\$ 1,300	\$ 8,600		\$ 8,000	8	4	7.5				
2	Hotel.....	\$ 1,960	\$ 4,058	\$ 6,018	\$ 1,165	\$ 2,827	\$ 3,992	52	52	a 2.5			
	Total.....	\$ 9,260	\$ 5,358	\$ 14,618	\$ 1,165	\$ 2,827	\$ 11,992						

a Average. b Includes board and room. c Separate accounts for males and females not reported.

NUMBER WEEKS OPERATED: \* More work, better business.

## FLOYD COUNTY.

1	Bank, store and office fixtures.....	\$ 18,500		\$ 18,500	\$ 18,000		\$ 18,000	51	51	10.00			
2	Farm machine manufactory.....	2,404		2,404	2,570		2,570	52	52				
3	Nursery and seed.....	9,448		9,448	13,925		13,925	52	52				
4	Sash, doors and moulding manufactory.....	10,614		10,614	9,790		9,790	46	46				
5	Telephone exchange.....	1,820	\$ 720	2,540				52					
	Total.....	\$ 42,786	\$ 720	\$ 43,506	\$ 44,285		\$ 44,285						

CAUSE OF INCREASE OR REDUCTION: / Men demanded a raise. g Efficiency of workmen.

STATUTORY INVESTIGATION—PART I—CONTINUED.  
FRANKLIN COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile works .....	1	1	0	.....	6	6	.....	6
2	Hotel .....	1	1	5	13	18	6	9	15
3	Milling and grain .....	1	1	5	.....	5	5	.....	5
4	Poultry, eggs and produce .....	1	1	50	.....	50	52	.....	52
	Total .....	4	4	66	13	79	69	9	78

FREMONT COUNTY.

1	Brick and tile works .....	1	1	7	.....	7	7	.....	7
2	Canning, fruit .....	1	1	20	30	50	35	45	80
	Total .....	2	2	27	30	57	42	45	87

GREENE COUNTY.

1	Brick and tile works .....	1	"	30	.....	30	.....	.....	.....
2	Butter manufactory .....	2	1	8	.....	8	8	.....	8
3	General merchandise .....	2	"	3	1	4	.....	.....	.....
	Total .....	4	1	41	1	42	8	.....	8

" Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.  
FRANKLIN COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
1	Brick and tile works .....	\$ 1,300		\$ 1,300	\$ 1,550		\$ 1,550	23	27	.....	.....	.....	.....
4. 54	Hotel .....	\$ 1,420	\$ 1,400	\$ 2,820	\$ 1,500	\$ 1,440	\$ 2,940	52	52	.....	.....	.....	.....
	Milling and grain .....	2,512		2,512	2,632		2,632	52	52	.....	.....	.....	.....
	Poultry, eggs and produce .....	21,600		21,600	21,800		21,800	* 52	† 52	.....	.....	.....	.....
	Total. ....	\$ 26,232	\$ 1,400	\$ 27,632	\$ 27,482	\$ 1,440	\$ 28,922			.....	.....	.....	.....

δ includes board and room. NUMBER WEEKS OPERATED: \* 6 full, 48 short. † 6 full, 48 short.

FREMONT COUNTY.

1	Brick and tile works .....	\$ 900	.....	\$ 900	\$ 800	.....	\$ 800	16	16	.....	.....	.....	.....
2	Canning, fruit .....	700	\$ 800	1,500	2,800	\$ 1,200	4,000	* 10	10	.....	.....	.....	.....
	Total .....	\$ 1,600	\$ 800	\$ 2,400	\$ 3,600	\$ 1,200	\$ 4,800	.....	.....	.....	.....	.....	.....

NUMBER WEEKS OPERATED: \*, 6 full, 4 short.

GREENE COUNTY.

1	Brick and tile works .....	\$ 14,000	.....	\$ 14,000	.....	.....	.....	* 52	.....	7 10.00	.....	.....	.....
2	Butter manufactory .....	4,500	.....	4,500	4,500	.....	4,500	52	52	.....	.....	.....	.....
3	General merchandise .....	1,400	\$ 240	1,700	.....	.....	.....	52	.....	.....	.....	.....	.....
	Total .....	\$ 19,900	\$ 240	\$ 20,200	\$ 4,500	.....	4,500	.....	.....	.....	.....	.....	.....

NUMBER WEEKS OPERATED: \* 40 full, 12 short. CAUSE OF INCREASE OR REDUCTION: † Scarcity of men.

STATUTORY INVESTIGATION—PART I—CONTINUED.

GUTHRIE COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile works.....	1	1	8	.....	8	8	.....	8
2	Coal mining.....	4	4	29	.....	29	30	.....	30
3	Hotel.....	1	n	5	.....	5	.....	.....	.....
4	Woolen goods manufactory.....	1	n	8	.....	13	.....	.....	.....
	Total.....	7	5	48	10	58	38	.....	38

n Not reported.

HAMILTON COUNTY.

1	Agricultural implements manufactory.....	1	2	50	.....	50	60	2	62
2	Bakery and confectionery.....	1	n	3	.....	1	.....	.....	.....
3	Boot and shoe manufactory.....	1	n	28	18	40	.....	.....	.....
4	Dry goods, general merchandise.....	1	1	3	6	9	3	6	9
5	Foundry and heater manufactory.....	1	1	18	18	19	.....	.....	19
6	Hotel.....	2	n	11	17	28	.....	.....	.....
7	Laundry, steam.....	1	1	5	20	31	5	25	30
8	Printing and publishing.....	1	1	11	.....	11	10	.....	10
9	Tailoring.....	1	n	12	1	13	.....	.....	.....
	Total.....	10	6	141	69	210	97	33	130

n Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.

GUTHRIE COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Brick and tile works.....	\$ 1,200	.....	\$ 1,700	\$ 1,200	.....	\$ 1,200	20	20	10.00	.....	.....	.....
2	Coal mining.....	6,899	.....	6,899	7,420	.....	7,420	26	26	12.5	.....	.....	.....
3	Hotel.....	c	.....	b 1,297	.....	.....	.....	52	.....	.....	.....	.....	.....
4	Woolen goods manufactory.....	2,037	\$ 470	2,507	.....	.....	.....	31	.....	.....	.....	.....	.....
	Total.....	\$ 10,136	\$ 470	\$ 11,003	\$ 8,620	.....	\$ 8,620	.....	.....	.....	.....	.....	.....

a average. b includes board and room. c Separate accounts for males and females not reported.  
CAUSE OF INCREASE OR REDUCTION: 1 Scarcity of labor. 2 Organized labor.

HAMILTON COUNTY.

1	Agricultural implement manufactory.....	\$ 15,500	.....	\$ 15,500	\$ 20,300	\$ 412	\$ 20,712	50	50	15.00	.....	.....	.....
2	Bakery and confectionery.....	1,500	\$ 395	1,925	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Boot and shoe manufactory.....	c	.....	c 10,191	.....	.....	.....	40	.....	.....	.....	.....	.....
4	Dry goods, general merchandise.....	1,320	2,100	3,420	1,296	2,250	3,552	52	52	10.00	.....	.....	.....
5	Foundry and heater manufactory.....	6,700	.....	6,700	8,110	.....	8,110	52	52	10.00	.....	10.00	.....
6	Hotel.....	b 2,712	b 3,288	c 6,000	.....	.....	.....	52	.....	.....	.....	.....	.....
7	Laundry, steam.....	c	c	c 10,400	2,600	8,400	11,000	52	52	.....	.....	.....	.....
8	Printing and publishing.....	5,982	.....	5,982	5,500	.....	5,500	52	52	.....	.....	.....	.....
9	Tailoring.....	4,100	300	4,400	.....	.....	.....	52	.....	.....	.....	.....	.....
	Total.....	\$ 37,874	\$ 6,053	\$ 61,518	\$ 37,806	\$ 11,068	\$ 48,864	.....	.....	.....	.....	.....	.....

a Includes board and room. c Separate accounts for males and females, not reported.

CAUSE OF INCREASE OR REDUCTION: 1 Better times. 2 Demand for labor. NUMBER WEEKS OPERATED: \* 10 full, 30 short. † 44 full, 8 short.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## HANCOCK COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Agricultural implement manufacturing.....	1	n	8		8			
2	Hotel.....	2	n	4	13	17			
3	Telephone exchange.....	1	1	10	5	15	12	4	16
	Total.....	4	1	22	18	40	12	4	16

n Not reported.

## HARDIN COUNTY.

1	Brick and tile works.....	n	2				27		27
2	Creamery and general merchandise.....	1	n	10	2	12			
3	Egg packing.....	1	1	5		5	7		7
4	General merchandise.....	1	2	4	1	5	16	3	19
5	Hotel.....	2	n	5		5			
6	Laundry, steam.....	1	n	4	10	15			
7	Merchant tailoring.....	1	n	4	9	13			
8	Real estate and loans.....	1	n	8	2	10			
9	Stone quarrying.....	1	n	6	5	11			
10	Transfer and drayage.....	1	1	12		12	12		12
	Total.....	10	7	59	25	84	67	3	70

n Not reported.

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## HANCOCK COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Agricultural implement manufactory.....	\$ 2,200		\$ 2,200									
2	Hotel.....	c		\$ 3,020				52					
3	Telephone.....	3,600	\$ 1,300	4,900	\$ 7,540	\$ 960	\$ 8,500	52	52				
	Total.....	\$ 5,800	\$ 1,300	\$ 7,100	\$ 7,540	\$ 960	\$ 8,500						

c Separate accounts for males and females not reported. b Includes board and room.

## HARDIN COUNTY.

1	Brick and tile work.....			\$ 8,300		\$ 8,300	52	20					
2	Creamery and general merchandise.....	\$ 5,768	\$ 484	\$ 6,252				52	52	5.00			
3	Egg packing.....	1,600		1,600	1,700		1,700	52	52				
4	General merchandise.....	1,900	500	2,400	9,100	\$ 1,004	10,104	52	52	10.00			
5	Hotel.....	b 1,116	b 1,585	b 2,701				52					
6	Laundry, steam.....	1,560	1,400	2,960				52					
7	Merchant tailoring.....	4,200	365	4,565				52		5.00			
8	Real estate and loans.....	3,492	1,495	4,987				52		10.00			
9	Stone quarrying.....	4,000		4,000	4,000		4,000	52	40				
10	Transfer and drayage.....	2,300		2,300	2,392		2,392	52	52	10.00			
	Total.....	\$ 25,836	\$ 5,600	\$ 31,436	\$ 25,492	\$ 1,004	\$ 26,496						

b Includes board and room. NUMBER WEEKS OPERATED: \* 28 full, 24 short. † 36 full, 16 short. ‡ 30 full, 22 short. CAUSE OF INCREASE OR REDUCTION: 1 efficiency of help. 2 demanded by help. 3 better help and better business.

STATUTORY INVESTIGATION—PART I—CONTINUED.  
HARRISON COUNTY.

Marginal number	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
		1899	1900	1899.			1900.		
				Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile works	2	2	12		12	12		12
2	Hotel	1	"	8		14	22		6
3	Milling and electric power	1	1	5		5	6		
4	Printing and publishing	1	"	9		15			
	Total	5	3	34	20	54	18		18

" Not reported.

HENRY COUNTY.

1	Brick and tile works	1	1	10		10	9		9
2	Hotel	1	1	3	7	10	4	7	11
3	Milling and grain	1	1	9	2	11	19	2	21
4	Planing mill and lumber yard	1	1	12		12	12		12
5	Printing and publishing	2	2	12	6	18	9	5	14
	Total	6	6	46	15	61	53	14	67

HOWARD COUNTY.

1	Dry goods and general merchandise	"	1				3	2	5
2	Hotel	"	1				3	6	9
3	Laundry, steam	1	1	1	4	5	1	5	6
4	Nursery, seeds and shrubs		1				20	2	22
5	Tow manufacturing	2	2	25		25	18		18
	Total	3	6	26	4	30	45	15	60

" Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.  
HARRISON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Brick and tile works	\$ 2,824		\$ 2,824	\$ 3,053		\$ 3,053	25	26	at 7.5			
2	Hotel	\$ 2,700	\$ 2,918	\$ 5,618				52					
3	Milling and electric power	2,300		2,300	2,300		2,300	48	52				
4	Printing and publishing	2,000	800	2,800				52					
	Total	\$ 9,824	\$ 3,718	\$ 13,542	\$ 5,353		\$ 5,353						

δ Includes board and room. α average. CAUSE OF INCREASE OR REDUCTION: ↑ prosperity and advance in prices.

HENRY COUNTY.

1	Brick and tile works	\$ 1,974		\$ 1,974	\$ 2,333		\$ 2,333	*42	†40				
2	Hotel	\$ 720	\$ 61,040	\$ 61,760	\$ 61,040		\$ 61,040	52	52				
3	Milling and grain	4,280	641	4,921	4,382	605	4,987	52	52				
4	Planing mill and lumber yard	4,000		4,000	4,000		4,000	†40	840				
5	Printing and publishing	2,332	1,272	3,604	3,750	1,250	5,000	52	52				
	Total	\$ 13,306	\$ 2,953	\$ 16,259	\$ 15,425	\$ 2,805	\$ 18,230						

δ includes board and room. NUMBER WEEKS OPERATED: \* 24 full, 18 short. † 18 full, 22 short. ‡ 28 full, 12 short. § 18 full, 22 short.

HOWARD COUNTY.

1	Dry goods and general merchandise				\$ 1,860	\$ 800	\$ 2,660		52				
2	Hotel				\$ 1,690	\$ 1,186	\$ 2,876		52				
3	Laundry, steam	\$ 277	\$ 500	\$ 777	277	626	903	*40	52				
4	Nursery, seeds and shrubs				1,850	110	1,960		26				
5	Tow manufacturing	6,315		6,315	4,872		4,872	†40	25				
	Total	\$ 6,592	\$ 500	\$ 7,092	\$ 10,389	\$ 2,722	\$ 13,071						

δ Includes board and room. NUMBER WEEKS OPERATED: \* 20 full, 20 short. † 15 full, 25 short. CAUSE OF INCREASE OR REDUCTION: ↑ Better prices.

STATUTORY INVESTIGATION—PART I—CONTINUED.

HUMBOLDT COUNTY.

Marginal number,	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Dry goods and general merchandise.....	1	1	5	3	8	5	3	8
	Total.....	1	1	5	3	8	5	3	8

IDA COUNTY.

1	Light and heat.....	n	1				5		5
2	Lumber and coal.....		1				2		2
	Total.....		2				7		7
n	Not reported.								

IOWA COUNTY.

1	Brick and tile works.....	2	2	30		30	29		29
2	Dry goods and general merchandise.....	1	1	3	2	5	4	1	5
3	Hotel.....	1	n	4	4	8			
4	Milling and grain.....	1	n	7		7			
	Total.....	5	3	44	6	50	33	1	34
n	Not reported.								

STATUTORY INVESTIGATION—PART II—CONTINUED.

HUMBOLDT COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Dry goods and general merchandise.....	\$ 2,700	\$ 1,560	\$ 4,260	\$ 2,560	\$ 1,460	\$ 4,020	52	*52	10.00			
	Total.....	\$ 2,700	\$ 1,560	\$ 4,260	\$ 2,560	\$ 1,460	\$ 4,020						
NUMBER WEEKS OPERATED: * 40 full, 12 short. CAUSE OF INCREASE OR REDUCTION: 1 Length of service made help more valuable.													

IDA COUNTY.

1	Light and heat.....				\$ 3,000		\$ 3,000		52				
2	Lumber and coal.....				1,660		1,660		52				
	Total.....				\$ 4,660		\$ 4,660						

IOWA COUNTY.

1	Brick and tile works.....	\$ 6,800		\$ 6,800	\$ 7,080		\$ 7,080	36	30	10.00			
2	Dry goods and general merchandise.....	c	c	c 2,800	3,000	600	3,600	52	52				
3	Hotel.....			c 1,050				52					
4	Milling and grain.....	3,192		3,192				40					
	Total.....	\$ 9,992		\$ 13,840	\$ 10,080	\$ 600	\$ 10,680						

1 Includes board and room. c Separate accounts for males and females not reported. CAUSE OF INCREASE OR REDUCTION: 1 Labor hard to keep.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## JACKSON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Butter tub and barrel head manufactory.....	2	1	17		17	4		4
2	Butter manufactory.....	n	1				2		2
3	Cigar manufactory.....	1	1	5	1	6	3		3
4	Hotel.....	1	1	6	5	11	7	7	14
5	Lime manufactory.....	2	1	80		80	15		15
6	Woolen goods manufactory.....	1	n	10	5	15			
7	Wholesale, tobacco and cigars.....	1	1	5	1	6	6	1	7
	Total.....	8	6	123	12	135	37	8	45

n Reported, manufactory closed.

## JASPER COUNTY.

1	Brick and tile works.....	1	1	11		11	10		10
2	Coal mining.....	2	3	281	1	282	202	1	203
3	Clothing manufactory.....	1	n	14	50	73			
4	Dry goods and general merchandise.....	1	n	18	11	29			
5	Hotels and restaurants.....	3	2	10	32	51	14	21	35
6	Foundry and implement manufactory.....	3	3	69	1	100	122	1	123
7	Milling, grain, cereals, flour, etc.....	n	1				6	1	7
	Total.....	11	10	442	104	546	354	24	378

n Not reported.

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## JACKSON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Butter tub and barrel head manufactory.....	\$ 4,750		\$ 4,750	\$ 1,194		\$ 1,194	* 48	38				
2	Butter manufactory.....				738		738		40				
3	Cigar manufactory.....	1,886	\$ 207	2,093	1,505		1,505	52	52				
4	Hotel.....	6 300	\$ 225	6 525	6 1,200	\$ 240	6 1,440	52	52				
5	Lime manufactory.....	29,500		29,500	4,000		4,000	† 40	‡ 40	1415 00			
6	Woolen goods manufactory.....	1,452	363	1,915				24	24	33 00			
7	Wholesale, tobacco and cigars.....	5,800	520	6,320	6,240	520	6,760	52	52				
	Total.....	\$ 43,788	\$ 1,315	\$ 45,103	\$ 14,877	\$ 760	\$ 15,637						

a Average. b Includes room and board. NUMBER WEEKS OPERATED: \*34 full, 11 short, †30 full, 10 short, ‡30 full, 10 short. CAUSE OF INCREASE OR REDUCTION: / Better times, 2 Less work.

## JASPER COUNTY.

1	Brick and tile works.....	\$ 1,500	\$ 1,500	\$ 2,000	\$ 2,000	24	24			15 00			
2	Coal mining.....	153,274	720	153,994	120,031	720	120,751	40	30	12 00		12 00	
3	Clothing manufactory.....	4,920	8,100	13,020				52					
4	Dry goods and general merchandise.....	1,979	984	2,963				13					
5	Hotels and restaurants.....	\$ 4,990	\$ 4,754	\$ 9,744	\$ 3,792	\$ 3,930	\$ 7,722	52	52				
6	Foundry and implement manufactory.....	28,082	421	28,503	55,801	430	56,237	48	52	12 50		5 00	
7	Milling, grain, cereals, flour, etc.....			3,000	200		3,200	52	52				
	Total.....	\$ 194,751	\$ 14,979	\$ 209,730	\$ 184,624	\$ 5,286	\$ 189,910						

NUMBER WEEKS OPERATED: \*26 full, 12 short, †36 full, 16 short, ‡25 full, 27 short. CAUSE OF INCREASE OR REDUCTION: Demand of brick, 2 Better demand for coal and miners. 3 Prosperity. b Includes board and room.

STATUTORY INVESTIGATION—PART I—CONTINUED.

JEFFERSON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
				1899.			1900.			
				1899	1900	Males.	Females.	Total.	Males.	Females.
1	Agricultural tool manufactory	1	1	38	2	40	42	2	44	
2	Brick and tile works	1	1	20		20	19		19	
3	Cigar manufactory	H	1				6		6	
4	Hotel	1	1	4	9	13	4	10	14	
5	Laundry, steam	1	1	2	4	6	2	4	6	
6	Mitten and glove manufactory	H	1					12	12	
7	Merchant tailoring	2	H	5	5	10				
8	Printing and publishing	1	1	6	2	8	6	2	8	
9	Wagon manufactory	1	H	70	1	71				
	Total	8	7	145	23	168	79	30	109	
	H Not reported.									

# Not reported.

JOHNSON COUNTY.

1	Agricultural implement manufactory	#	1					40		40
2	Bread and cake bakery	1	1					6		6
3	Brick and tile works	1	2	12	2	12	4	2		27
4	Cigar manufactory	1	1	4		4				4
5	Clothing manufactory	1	1	4	1	5	5			6
6	Dry goods, general merchandise	1	#	4	10	14				
7	Fence, tank and wind mill manufactory	1	#	14	1	15				
8	Hotels and restaurants	3		21	23	44				
9	Mitten and glove manufactory									
10	Laundry, steam	1	1				15	35		50
11	Milling and grain	1	1	10	7	17	10	8		18
12	Painting and decorating	1	#	16		16				
13	Perfumery manufactory	1	1	20	20	40	20	20		40
14	Printing and publishing	3	1	60	11	71	8	1		9

STATUTORY INVESTIGATION—PART II—CONTINUED.

JEFFERSON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Agricultural tool manufactory	\$ 17,163	\$ 677	\$ 17,840	\$ 17,963	\$ 795	\$ 18,668	52	52	7 10.00			
2	Brick and tile works	5,366		5,366	6,142		6,142	38	36				
3	Cigar manufactory				2,623		2,623	52	52				
4	Hotel	750	1,248	1,998	750	1,362	2,112	52	52				
5	Laundry, steam	832	1,066	1,898	800	725	1,525	52	52				
6	Mitten and glove manufactory					1,000	1,000	52	26				
7	Merchant tailoring	2,030	1,280	3,310				52	52				
8	Printing and publishing	2,860	676	3,536	3,800	624	4,424	52	52				
9	Wagon manufactory	27,842	530	28,372				50	50	2 10.00			
	Total	\$ 56,843		\$ 58,078	\$ 62,078	\$ 4,416	\$ 66,494						

# In-cludes board and room. NUMBER WEEKS OPERATED: \* 34 full, 4 short, † 40 full, 12 short, ‡ 34 full, 16, short. CAUSE OF INCREASE OR REDUCTION: Efficiency of labor. ‡ Demand for labor.

JOHNSON COUNTY.

1	Agricultural implement manufactory	\$ 15,778	\$ 15,778	52	52		
2	Bread and cake bakery	\$ 1,740	\$ 280	\$ 2,520	\$ 530	\$ 2,510	52
3	Brick and tile works	2,650		5,000	5,000	48	26
4	Cigar manufactory	2,080		2,080	1,440	52	52
5	Clothing manufactory	2,580	240	2,820	2,400	3,180	52
6	Dry goods, general merchandise	1,518	2,926	4,444			52
7	Fence, tank and wind mill manufactory	1,540	128	1,668			52
8	Hotels and restaurants	3,056	2,792	5,848			52
9	Mitten and glove manufactory			6,000	7,000	13,000	52
10	Laundry, steam	1,813	1,856	3,669	2,748	4,272	52
11	Milling and grain	3,500		3,500	1,750	52	32
12	Painting and decorating	6,400		6,400			52
13	Perfumery manufactory	10,000	5,500	15,500	5,500	21,500	52
14	Printing and publishing	23,150	3,457	26,607	4,250	4,550	52

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## JOHNSON COUNTY—CONTINUED.

414

NINTH BIENNIAL REPORT OF THE

[No. 19]

1902]

BUREAU OF LABOR STATISTICS.

415

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
15	Wholesale grocery.....	1	1	9	1	10	8	1	9
16	Wholesale jewelry and manufactory.....	1	1	5	15	20	11	28	39
	Total.....	18	13	187	91	278	159	96	255
n. Not reported.									

## JONES COUNTY.

1	Agricultural implement manufactory.....	1	1	8	8	6	6		
2	Butter tub manufactory (penitentiary).....	1	1	32	32	32	32		
3	Duster manufactory.....	1	1	20	40	60	45		
4	Stone quarries.....	2	2	409	409	100	100		
	Total.....	4	5	497	40	537	153	30	183
1. Establishment not in operation in 1899.									

## KEOKUK COUNTY.

1	Brick and tile works.....	3	2	25	25	19	19
2	Coal mining.....	5	5	340	340	434	434

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## JOHNSON COUNTY—CONTINUED.

BUREAU OF LABOR STATISTICS.

415

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
15	Wholesale grocery .....	5,770	260	6,030	5,800	275	6,075	52	52				
16	Wholesale jewelry and manufactory .....	2,780	4,200	6,980	6,660	6,324	12,984	52	52	10.00			
	Total.....	\$ 74,557	\$ 22,139	\$ 96,696	\$ 70,146	\$ 21,693	\$ 91,839						

a Includes board and room. b One establishment only.

CAUSE OF INCREASE OR REDUCTION: 1 Had to in order to keep help. 2 General increase in wages. 3 Slight increase to steady help. 4 Efficiency.

NUMBER WEEKS OPERATED: \* 40 full, 12 short. † 32 full, 16 short. ‡ 20 full, 32 short. § 35 full, 17 short. || 18 full, 31 short. ¶ 46 full, 6 short.

## JONES COUNTY.

1	Agricultural implement manufactory.....	\$ 3,250	\$ 3,250	\$ 3,072	\$ 3,072	52	52						
2	Butter tub manufactory (penitentiary).....				5,630		47						
3	Duster manufactory.....	c	c	8,874	3,118	4,101	7,219	49	50				
4	Stone quarries.....	25,875	25,875	34,223	34,223	30	30	10.00					
	Total.....	\$ 39,125	\$ 37,999	\$ 46,043	\$ 41,011	\$ 50,114							

a Average. c Separate accounts for males and females, not reported. d One establishment only.

CAUSE OF INCREASE OR REDUCTION: 1 Lack of Laborers. NUMBER WEEKS OPERATED: \* 28 full, 24 short. † 45 full, 2 short. ‡ 24 full, 25 short. § 33 full, 17 short. || \$1,080, wages paid to free labor; \$4,550, wages paid for convict labor.

## KEOKUK COUNTY.

1	Brick and tile works.....	\$ 5,663	\$ 5,663	\$ 6,640	6,640	30	35					5.00	
2	Coal mining.....	195,981	195,981	226,120	226,120	50	50	30.00				12.5	

STATUTORY INVESTIGATION—PART I—CONTINUED.

KEOKUK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
3	Hotel.....	1	n	3	10	13			
4	Mining tool manufactory.....	1	1	18		18	20		20
	Total.....	10	8	386	10	396	473		473

n. Not reported.

KOSSUTH COUNTY.

1	Butter tub and tank manufactory.....	1	1	11	1	12	12	1	14
2	Brick and tile works.....	1	1	6		6	5	0	5
3	Hotel.....	1	1	1	6	7	5	10	15
4	Laundry, steam.....	1	1	2	0	2	4	4	8
5	Milling, grain and general merchandise.....	1	1	7		7	6		6
	Total.....	5	5	27	13	40	33	15	48

LEE COUNTY.

1	Agricultural implement manufactory.....	2	1	151	2	153	80	2	82
2	Agricultural small tool manufactory (free labor).....	1	1	30		30	38		38
3	Agricultural small tool manufactory (convict labor).....	1	1	155		155	155		155
	Bag manufactures.....	1	n	16	36	52			

STATUTORY INVESTIGATION—PART II—CONTINUED.

KEOKUK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females	Total	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
3	Hotel.....	c	c	1,500				52					
4	Mining tool manufactory.....	9,974		9,974	9,628		9,628	52	52				
	Total.....	\$211,618		\$213,118	\$242,388		\$242,388						

b Includes room and board. c Separate accounts for males and females, not reported. d One establishment only.

f CAUSE OF INCREASE OR REDUCTION. Better times. 2 Organization of labor and operators.

\* NUMBER OF WEEKS OPERATED. 22 full, 8 short. † 26 full, 9 short. ‡ 30 full, 20 short. § 30 full, 20 short.

KOSSUTH COUNTY.

1	Butter tub and tank manufactory.....	\$ 5,000	\$ 200	\$ 5,200	\$ 6,023	\$ 260	\$ 6,283	* 48	† 52	10.00			
2	Brick and tile works.....	738		738	471		471	18	16	7.00			
3	Hotel.....	200	900	1,100	900	1,680	2,580	52	52				
4	Laundry, steam.....	1,000	1,500	2,500	1,552	1,040	2,592	52	52	240.00			
5	Milling, grain and general merchandise.....	4,020		4,020	3,530		3,530	48	50				
	Total.....	\$ 10,958	\$ 2,600	\$ 13,618	\$ 12,476	\$ 2,980	\$ 15,456						

b Includes room and board.

f CAUSE OF INCREASE OR REDUCTION: † Unable to get men. 2 More work and better service from help.

NUMBER WEEKS OPERATED: \* 45 full, 3 short. † 43 full, 9 short.

LEE COUNTY.

1	Agricultural implement manufactory.....	\$ 33,275	\$ 400	\$ 33,675	\$ 29,625	\$ 576	\$ 30,201	a*40	††46	10 10.00			
2	Agri. small tool manufactory (free labor).....	28,107		28,107	35,041		35,041	52	52				
3	Agri. small tool manufactory (convict labor).....	25,280		25,280	23,258		23,258	52	52				
	Bag manufacturers.....	c	c	5,867				28					

STATUTORY INVESTIGATION—PART I—CONTINUED.  
LEE COUNTY—CONTINUED.

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NINTH BIENNIAL REPORT OF THE

[No. 19

1902]

BUREAU OF LABOR STATISTICS.

419

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
4	Barrel and keg manufactory	2	2	105		105	80		80
5	Brewery of beer and soft drinks	2	1	14		14	8		8
6	Brick manufactory	1	1	6		6	9		9
7	Button blank manufactory (convict labor)	1	1				55		55
8	Cake and candy manufactory	1	1	13	3	16			
9	Canning—vegetables and pickles	2	2	70	102	172	86	119	205
10	Can manufactory	1	1	100	50	150	90	40	130
11	Carriage manufactory	1	1	6		6	6		6
12	Chair manufactory (free labor)	1	1	25		25	25		25
13	Chair manufactory (convict labor)	1	1	139		139	139		139
14	Clothing and furnishings, retail	2	2	7		7	0		0
15	Coal and ice, retail and wholesale	1	2	10		10	11		11
16	Dry goods, retail	1	2	150		150	174	1	175
17	Foundry and machine manufactory	3	2	15	20	35	11	19	30
18	Furniture and office fixture manufactory	1	1	14		14	16		16
19	Furnishing, carpets, retail	1	1	7		7			
20	Gas manufactory	2	2	27	9	36	10	2	12
21	Hardware manufactory	2	1	9	5	14	8	4	12
22	Hotels and restaurants	4	3	45	26	71	39	22	61
23	Insurance, fire	1	1	12	10	22	21	11	32
24	Laundry, steam	2	2	7	14	21	8	14	22
25	Lumber and planing mills, wholesale	3	2	290	5	295	321	4	325
26	Medicine (proprietary) manufactory	1	1	185	0	185	190	3	193
27	Merchant tailoring	1	1	11	3	14			
28	Millinery, wholesale and retail	1	1	13	12	25	10	25	35
29	Packers, butter and eggs	1	1	13		13			
30	Painters and decorating	2	2	20	2	22	20	1	21
31	Paper manufactory, strawboard	1	1				40	4	50

STATUTORY INVESTIGATION—PART II—CONTINUED.  
LEE COUNTY—CONTINUED.

1902]

BUREAU OF LABOR STATISTICS.

419

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
4	Barrel and keg manufactory	35,200		35,200	29,000		29,000	52	52	5.00			
5	Brewery of beer and soft drinks	6,756		6,756	4,000		4,000	52	52				
6	Brick manufactory	1,367		1,367	2,805		2,805	28	28				
7	Button blank manufactory (convict labor)				8,645		8,645	52	52				
8	Cake and candy manufactory	6,210	832	7,042				52	52				
9	Canning, vegetable and pickles												
10	Can manufactory	12,565	6,210	18,776	14,000	5,000	19,000	44	36				
11	Carriage manufactory	2,000		2,000	3,000		3,000	52	51				
12	Chair manufactory (free labor)	15,000		15,000	15,000		15,000	50	50				
13	Chair manufactory (convict labor)	17,868		17,868	16,462		16,462	50	50				
14	Cigar manufactory				2,220		2,220	44	44				
15	Clothing and furnishings, retail	5,723		5,723	5,709		5,709	52	52				
16	Coal and ice, retail and wholesale	9,261		9,261	14,975	240	14,915	52	51				
17	Dry goods, retail	8,155	6,668	14,823	8,904	6,128	15,032	52	52				
18	Foundry and machine manufactory	6,796		6,796	7,005		7,005	52	50				
19	Furniture and office fixture manufactory	2,610		2,610				52	52				
20	Furnishings, carpets, retail	13,826	3,728	17,554	7,500	2,500	10,000	52	52				
21	Gas manufactory	5,030	316	5,346	6,343	740	7,083	52	52	50.10.00			
22	Hardware manufactory	11,348	884	12,232	2,640	728	3,368	47	47	0.20.00			
23	Hotels and restaurants	12,812	3,390	16,202	2,470	3,158	5,628	52	52				
24	Insurance, fire	10,388	2,691	13,079	20,148	4,525	24,673	52	52				
25	Laundry, steam	2,350	2,254	4,604	2,602	2,610	5,212	50	50				
26	Lumber and planing mills, wholesale			121,405	172,656		172,656	50	50	60.10.00			
27	Medicine (proprietary) manufactory	73,000	1,000	74,000				52	52				
28	Merchant tailoring	8,200	1,000	9,200				52	52	7.15.00			
29	Millinery, wholesale and retail	6,000	2,000	8,000	4,500	12,500		44	40	0.10.00			
30	Packers, butter and eggs	6,520		6,520				52	52				
31	Painters and decorating	7,088	617	7,705				52	52				
32	Paper manufactory, strawboard				18,400	800	19,200	44	44				

STATUTORY INVESTIGATION—PART I—CONTINUED.

LEE COUNTY—CONTINUED.

Marginal number,	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
				1899.			1900.			
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.	
32	Printers and bookbinders.....	5	5	09	0	78	62	11	73	
33	Pickle and vinegar manufactory.....	1	1	12	44	56	9	13	22	
34	Powder manufactory.....	1	1	110		110	200		200	
35	Saddlery and horse collar manufactory.....	1	1	27		27	21		21	
36	Sash door and blind manufactory.....	3	2	479	23	502	81	1	82	
37	Shirt, coat and pants manufactory.....	1	1	49	151	200	43	156	199	
38	Shoe manufactory.....	1	1	160	150	310	160	150	310	
39	Starch manufactory.....	1	1	15		15	28	20	28	
40	Steam heating supply manufactory.....	1	1	12		12	15		15	
41	Stove and range manufactory.....	1	1	60		60	60		60	
42	Stoves and tinware, retail.....	1	n	12		12				
43	Transfer and transportation.....	3	3	33		33				
44	Wheel manufactory, cast iron.....	1	1	55		55	60		60	
45	Wholesale and retail carpets.....	1	n	28	4	32				
46	Wholesale and retail drugs.....	1	1	7		7	7		7	
47	Wholesale fruits and produce.....	1	1	6		6	7		7	
48	Wholesale general merchandise.....	1	n	6		6				
49	Wholesale groceries.....	4	4	60		60				
50	Wholesale jewelry and musical goods.....	1	1	14		14	15	2	17	
51	Wholesale oils.....	1	1	8		8	10	3	13	
	Total.....	79	66	2,917	711	3,628	2,521	609	3,130	

n Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.

LEE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
32	Printers and bookbinders.....	35,796	2,886	38,682	37,372	2,867	40,239	52	52			10 8.00	
33	Pickle and vinegar manufactory.....	0,477	3,597	10,074	6,289	2,730	9,028	52	52				
34	Powder manufactory.....	55,609		55,609	75,866		75,866	52	52				
35	Saddlery and horse collar manufactory.....	7,000		7,000	7,000		7,000	52	52				
36	Sash, door and blind manufactory.....	147,805	2,103	149,908	39,958	312	40,270	52	52				
37	Shirt, coat and pants manufactory.....	6	6	76,119	6	6	71,654	52	52				
38	Shoe manufactory.....	6	6	135,000	6	6	140,000	48	48				
39	Starch manufactory.....	12,655		12,655	4,660	4,020	8,680	50	49				
40	Steam heating supply manufactory.....	5,280		5,280	7,400		7,400	52	52				
41	Stove and range manufactory.....	12,000		12,000	15,936		15,936	52	52			12 15.00	
42	Stoves and tinware, retail.....	8,679		8,679	7,000		7,000	52	52				
43	Transfer and transportation.....	16,460		16,460	40,258		40,258	52	52				
44	Wheel manufactory, cast iron.....	36,168		36,168	40,258		40,258	40	42				
45	Wholesale and retail carpets.....	10,352	\$ 974	11,326				52	52				
46	Wholesale and retail drugs.....	4,772		4,772	4,500		4,500	52	52				
47	Wholesale fruit and produce.....	2,776		2,776	3,500		3,500	52	52				
48	Wholesale general merchandise.....	1,200	2,000	3,200				52	52				
49	Wholesale groceries.....	41,513	2,635	44,148	61,249	2,834	64,083	52	52			4 3.00	
50	Wholesale jewelry and musical goods.....	10,000	1,100	11,100	9,750	850	10,600	52	52				
51	Wholesale oils.....	6,700	1,500	8,200	8,140	1,560	9,700	52	52				
	Total.....	\$ 792,851	\$ 48,505	\$ 841,356	\$ 797,646	\$ 46,886	\$ 844,532						

a Average. b Includes board and room. c Separate account for males and females not reported. d One establishment only.

NUMBER WEEKS OPERATED: \* 30 full, 10 short. † 28 full, 15 short. ‡ 26 full, 26 short. § 4 full, 42 short. ¶ 36 full, 16 short. \* 27 full, 20 short. \*\* 30 full, 20 short. †† 30 full, 22 short. ‡‡ 30 full, 22 short. §§ 35 full, 17 short. || 42 full, 10 short. ¶¶ 44 full, 6 short. \*\*\* 40 full, 10 short. ††† 42 full, 22 short. §§§ 26 full, 26 short. |||| 25 full, 26 short. ¶¶¶ 4 full, 42 short. \*\*\*\* 30 full, 20 short. †††† 35 full, 15 short. ††††† 30

CAUSE OF INCREASE OR REDUCTION: 1 Plenty of work. 2 Left state. 3 Better demand for goods. 4 Cheaper help. 5 Increase of business. 6 Men struck for it. 7 Men wanted it. 8 Increased trade. 9 Agreement with painter's union. 10 More to do. 11 Improvement in business. 12 Agreement with union molders. 13 Volume of wages higher, increase per cent. none. 14 General prosperity and efficiency.

STATUTORY INVESTIGATION—PART I—CONTINUED.

LINN COUNTY.

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NINTH BIENNIAL REPORT OF THE

[No. 19

1902]

BUREAU OF LABOR STATISTICS.

423

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Bakery, bread and cakes	1	1	11	2	13	17	3	20
2	Barber	1	1	7		7	7		7
3	Canning, vegetables and corn	1	1	40	135	175	50	140	190
4	Cereal manufactory	1	1	250	200	450	288	218	506
5	Clothing, retail	2	1	21	4	25	7	1	8
6	Confectionery manufactory	1	1	14	20	40	22	28	50
7	Cracker and biscuit manufactory	1	1	48	55	103	34	51	85
8	Creamery and dairy supplies	1	1	5		5	7		7
9	Crockery, glassware, etc., retail	1	1	12	3	15	11	4	15
10	Cutlery manufactory	1	1	7		7	14	1	15
11	Dry goods and general merchandise	6	5	79	130	209	45	100	145
12	Electric light and power	1	1	32		32			
13	Fence manufactory	1	1	6		6			
14	Foundry and machine shop	1	1	30		30	55		55
15	Furniture dealers, retail	1	1	8		8	8		8
16	Furniture manufactory	2	2	36		36	44	1	45
17	Gas manufactory	1	1	16		16	19		19
18	Gun stock and hard wood manufactory	1	1	140		140			
19	Hardware and sheet iron works	1	1	7		7			
20	Hotels and restaurants	4	4	60		60	44	52	106
21	Ice, retail	3	3	38		38	39		39
22	Implement dealers (agricultural)	1	1	16	6	22	11	2	13
23	Insurance (fire)	1	1	23		23	23		23
24	Laundry, steam	2	1	21		21	27	6	33
25	Linseed oil mill	1	1	25		25	6		6
26	Lumber, retail	2	2	12		12	12		12
27	Mill supplies and electrical work	1	1	14	1	15	16	1	17
28	Milling and grain	1	1	19	1	20	15	1	16
29	Packing, beef and pork	1	1	620	10	630	689	17	706

STATUTORY INVESTIGATION—PART II—CONTINUED.

LINN COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Bakery, bread and cakes	\$ 5,500	\$ 500	\$ 6,000	\$ 8,600	\$ 720	\$ 9,320	52	52				
2	Barber	4,000		4,000	4,000		4,000						
3	Canning, vegetables and corn	c	c	7,520	c	c	8,172	4	5				
4	Cereal manufactory	98,932	37,732	136,664	154,501	54,835	209,336	52	52				
5	Clothing, retail	11,423	1,258	12,681	4,700	300	5,000	52	52				
6	Confectionery manufactory	10,000	5,000	15,000	10,000	5,000	21,000	52	52				
7	Cracker and biscuit manufactory	31,397	9,387	40,784	27,550	8,560	36,110	52	52				
8	Creamery and dairy supplies	2,760		2,760	4,200		4,200	52	52				
9	Crockery, glassware, etc., retail	c	c	11,500	c	c	11,500	52	52				
10	Cutlery manufactory			4,000	4,000		4,000	52	52				
11	Dry goods and general merchandise	37,199	33,413	70,612	22,596	26,080	48,676	52	52				
12	Electric light and power	16,718		16,718				52	52				
13	Fence manufactory	2,500		2,500	4,000	60	4,000	52	52				
14	Foundry and machine shop	12,870		12,870	23,524		23,524	52	52				
15	Furniture dealers, retail	4,000		4,000	4,000		4,000	52	52				
16	Furniture manufactory	16,350		16,350	17,194	350	17,544	52	52				
17	Gas manufactory	7,500		7,500	9,000		9,000	52	52				
18	Gun stock and hard wood manufactory	35,000		35,000				28	52				
19	Hardware and sheet iron works	2,900		2,900	2,830		2,830	52	52				
20	Hotels and restaurants	9,866	9,256	19,122	10,276	10,362	20,638	52	52				
21	Ice, retail	18,356		18,356	12,469		12,469	52	52				
22	Implement dealers (agricultural)	5,988	840	6,828	9,587	957	10,544	52	52				
23	Insurance (fire)	25,238		25,238	26,528		26,528	52	52				
24	Laundry, steam	2,954	4,327	7,281	3,513		3,513	52	52				
25	Linseed oil mill	12,143		12,143	17,544		17,544	52	52				
26	Lumber, retail	\$ 7,500		\$ 7,500	\$ 8,650		\$ 8,650	52	52				
27	Mill supplies and electrical work	7,500	450	7,950	8,325	260	8,585	52	52				
28	Milling and grain	13,155	345	13,500	11,575	140	11,715	52	52				
29	Packing, beef and pork	271,452	4,000	275,452	385,943	5,600	391,543	52	52				

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## LINN COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
30	Painting and wall paper.....	3	1	37	2	39	12		12
31	Paint manufactory.....	1	1	4		4	2		2
32	Pharmacy compound manufactory (medicine).....	1	1	10	5	15	10		10
33	Printing and publishing.....	2	2	66	0	72	77	5	82
34	Pump (iron and wood) manufactory.....	2	3	89	3	92	110	2	112
35	Sash, door and blind manufactory.....	2	1	98		98	89	1	90
36	Stone quarrying and road ballast.....	2	1	25		25	45		45
37	Transfer and transportation.....	1	1	83	2	85	84		84
38	Wagon manufactory.....	2	2	21		21	16		16
39	Water supply.....	1	1	20		20	23		23
40	Wholesale and retail coal.....	1	1	21		21			
41	Wholesale beer and brewing.....	1	n	8		8			
42	Wholesale beverages, carbonated.....	n	1				30		30
43	Wholesale grocery.....	5	3	10		10	9		9
44	Wholesale meats.....	1	1	68		68	50	1	51
45	Wholesale millinery.....	1	1	4		4	8		8
46	Wholesale wall paper and stationery.....	1	n	20	5	25	18	2	20
47	Wind mills and tank manufactory.....	1	1	15	3	18	1		1
	Total.....	69	50	2,180	680	2,860	2,112	659	2,771

n Not reported.

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## LINN COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
30	Painting and wall paper.....	18,352	1,020	19,372	5,760		5,760	52	52				
31	Paint manufactory.....	3,500		3,500	1,000		1,000	52	52	8			
32	Pharmacy compound manufactory (medicine).....	6,263	794	7,057	6,628	988	7,616	52	52				
33	Printing and publishing.....	50,469	2,000	52,469	50,613	3,020	53,633	52	52	15		11 0	10.
34	Pump (iron and wood) manufactory.....	38,100	1,200	39,300	48,382	768	49,150	52	52	12			
35	Sash, door and blind manufactory.....	36,143		36,143	34,128	390	34,518	52	50	13 5.00		13 5.00	
36	Stone quarrying and road ballast.....	5,000		5,000	10,000		10,000	52	30	14 20.00			
37	Transfer and transportation.....	40,194	900	41,094	39,844		39,844	52	52				
38	Wagon manufactory.....	10,200		10,200	5,200		5,200	52	52				
39	Water supply.....	11,912		11,912	10,089		10,089	52	52				
40	Wholesale and retail coal.....	5,078		5,078				52	52				
41	Wholesale beer and brewing.....				13,787		13,787		52				
42	Wholesale beverages, carbonated.....	6,526		6,526	8,308		8,308	52	52				
43	Wholesale grocery.....	51,865		51,865	45,286	390	45,676	52	52				
44	Wholesale meats.....	3,000		3,000	7,080		7,080	52	52				
45	Wholesale millinery.....	c	c	c	10,302		10,302	52	52		5.00		
46	Wholesale wall paper and stationery.....	8,008	1,000	9,008	9,273	988	10,261	52	52				
47	Wind mills and tank manufactory.....	10,831	480	11,311	11,201	480	11,681	52	52				
	Total.....	\$981,540	\$113,902	\$1,130,862	\$1,026,875	\$121,936	\$1,172,185						

a Includes board and room. c Separate accounts for males and females not reported. e One establishment only.

NUMBER OF WEEKS OPERATED: \* 22 full, 23 short. † 26 full, 26 short. ‡ 45 full, 7 short. § 40 full, 12 short. || 30 full, 22 short. ¶ 40 full, 10 short. \*\* 48 full, 4 short. †† 42 full, 10 short. ††† 22 full, 35 short. †††† 36 full, 14 short. ††††† 35 full, 17 short. †††††† 36 full, 16 short. ††††††† 42 full, 12 short.

CAUSE OF INCREASE OR REDUCTION: 1 Increase in cost of living; 2 Ability of help; 3 Efficiency; 4 Ability of help; 5 Wages were too low; 6 More and better work; 7 Recognition of good service; 8 Increased cost of living; 9 More business; 10 Efficiency of help; 11 Shorter work day; 12 Better business; 13 Men demanded it; 14 Shortage of men.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## LOUISA COUNTY.

Marginal number	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Canning vegetables	1	1	66	25	91	150	50	200
2	Hotel	2	2	5	8	13	5	8	13
3	Printing and publishing	1	n	4	3	7			
4	Soap manufactory	1	n	5		5			
	Total	5	3	80	36	116	155	58	213
	n Not reported.								

n Not reported.

## LUCAS COUNTY.

1	Broom and brush manufactory .....	1	1	8		8	6		6	
2	Carriage and wagon manufactory .....	1	1	15		15				
3	Coal mining .....	3	2	182		182	385		385	
4	Dry goods and general merchandise .....	2	2	6	6	12	8		16	
5	Grain and Lumber .....	1	n	25		25			25	
6	Hotel .....	1	n	6	8	14				
	Total .....	9	6	242	14	256	415	17	432	

n Not reported

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## LOUISA COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Canning vegetables .....	\$ 840	\$ 1,288	\$ 9,522	\$ 795	\$ 1,290	\$ 14,914	48	48				
2	Hotel .....			2,128			2,085	52	52				
3	Printing and publishing .....	1,993		2,000				52	52				
4	Soap manufactory .....			1,993				52	52	5.00			
	Total .....	\$ 2,833	\$ 1,288	\$ 15,643	\$ 795	\$ 1,290	\$ 16,999						

δ Includes board and room. c separate accounts for males and females not reported.  
NUMBER WEEKS OPERATED: \* 4 full, 44 short. † 6 full, 42 short.  
CAUSE OF INCREASE OR REDUCTION: † Help more proficient

## LUCAS COUNTY.

1	Broom and brush manufactory .....	\$ 3,276		\$ 3,276	\$ 1,711		\$ 1,711	52	48				
2	Carriage and wagon manufactory .....	6,500		6,500	7,800		7,800	52	52	5.00			10.00
3	Coal mining .....	44,299		44,299	231,680		231,680	26	50	210.00			
4	Dry goods and general merchandise .....	2,120	\$ 1,648	3,768	1,950	\$ 2,600	4,550	52	52				
5	Grain and Lumber .....	12,000		12,000				52					
6	Hotel .....	876	1,847	2,723				52					
	Total .....	\$ 69,071	\$ 3,495	\$ 72,566	\$ 243,141	\$ 2,600	\$ 245,741						

NUMBER WEEKS OPERATED: \* 40 full, 12 short. † Average. δ Includes board and room  
CAUSE OF INCREASE OR REDUCTION: † Increase demanded. ‡ Demand for men and coal. § Contract with union miners.

## STATUTORY INVESTIGATION—PART I—CONTINUED

## MADISON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Dry goods and general merchandise.....	1	1	8	.....	8	9	.....	9
2	Hotel.....	1	1	3	.....	3	3	.....	3
3	Milling and grain.....	n	1	.....	.....	.....	3	.....	3
	Total.....	2	3	11	5	16	15	5	20

n Not reported.

## MARION COUNTY.

1	Canning and pickling, vegetables.....	1	1	60	80	140	50	60	110
2	Coal mining.....	5	3	209	.....	209	88	.....	88
3	Printing and publishing.....	1	n	3	2	5	.....	.....	.....
4	Wagon manufactory.....	1	n	25	.....	25	.....	.....	.....
	Total.....	8	4	297	82	379	138	60	198

n. Not reported.

## MAHASKA COUNTY.

1	Bakery and confectionery.....	1	1	6	1	7	6	1	7
2	Boiler and heater manufactory.....	n	1	.....	.....	.....	12	2	14
3	Brick manufactory.....	2	1	65	.....	65	50	.....	50
4	Cigar manufactory.....	2	2	18	.....	18	29	.....	29
5	Coal mining.....	14	11	2,117	3	2,120	1,700	3	1,703
6	Clothing manufactory.....	2	1	13	30	43	11	1	12
7	Dry goods and general merchandise.....	2	2	22	49	71	23	50	73
8	Electric lighting and power.....	1	1	9	.....	9	10	.....	10

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## MADISON COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Dry goods and general merchandise .....	\$ 3,356	.....	\$ 3,356	\$ 3,688	.....	\$ 3,688	.....	.....	.....	.....	.....	.....
2	Hotel.....	\$ 728	\$ 650	\$ 1,378	\$ 792	\$ 1,632	.....	52	52	.....	.....	.....	.....
3	Milling and grain. ....	.....	.....	600	.....	600	.....	16	16	.....	.....	.....	.....
	Total .....	\$ 4,084	\$ 650	\$ 4,734	\$ 5,128	\$ 792	\$ 5,920	.....	.....	.....	.....	.....	.....
	Board and room .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

a Board and room.

## MARION COUNTY.

1	Canning and pickling, vegetables.....	\$ 2,700	\$ 3,300	\$ 6,000	\$ 3,430	\$ 1,843	\$ 5,273	12	8	10.00	.....	.....	2 10.00
2	Coal mining.....	\$ 98,436	.....	\$ 98,436	41,349	.....	41,329	a	40	2212.50	.....	.....	.....
3	Printing and publishing.....	1,175	375	1,550	.....	.....	.....	52	.....	.....	.....	.....	.....
4	Wagon manufactory.....	11,000	.....	11,000	.....	.....	.....	48	.....	.....	.....	.....	.....
	Total.....	\$113,311	\$ 3,675	\$116,986	\$ 44,750	\$ 1,843	\$ 46,602	.....	.....	.....	.....	.....	.....

a Average. CAUSE OF INCREASE OR REDUCTION: z Scarcity of help. z Short crop. z a Scale for mining made uniform.

## MAHASKA COUNTY.

1	Bakery and confectionery.....	\$ 3,000	395	\$ 3,395	\$ 2,850	\$ 260	\$ 3,110	52	52	.....	.....	.....	.....
2	Boiler and heater manufactory.....	.....	.....	10,000	525	.....	10,525	.....	.....	.....	.....	2.00	.....
3	Brick manufactory.....	18,375	.....	18,375	15,000	.....	15,000	26	30	.....	.....	.....	.....
4	Cigar manufactory.....	7,561	.....	7,561	13,224	610	13,834	50	50	.....	.....	5.00	.....
5	Coal mining.....	1,088,198	975	1,089,173	1,022,569	.....	1,022,569	a	45	45	3215.00	.....	32 10.00
6	Clothing manufactory.....	.....	.....	13,032	7,000	260	7,260	50	52	15.00	.....	.....	.....
7	Dry goods and general merchandise.....	13,450	16,557	30,007	14,400	17,269	31,669	52	52	5210.00	.....	.....	.....
8	Electric lighting and power.....	5,940	.....	5,940	5,980	.....	5,980	52	52	.....	.....	.....	.....

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## MAHASKA COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
9	Groceries, retail.....	1	1	5		5			
10	Harness manufactory.....	1	1	9		10		5	
11	Hotel.....	1	1	10	17	27	10	16	26
12	Laundry, steam.....	1	1	8	10	18	8	10	18
13	Lumber and planing mill, sash doors, etc.....	1	1	16	1	17	12	1	13
14	Printing and publishing.....	3	2	25	13	38	13	4	17
15	Structural iron and bridge manufactory.....	1	1	1		2	20		21
16	Telephone exchange, local.....	1	1	4	8	12	4	8	12
17	Transfer and livery.....	1	1	25	1	26			2
18	Wholesale egg dealers.....	1	1	16	1	17	6	1	7
19	Wholesale grocery.....	1	1	21	2	23	23	2	25
20	Wholesale and retail hardware.....	1	1	11		11	12		24
	Total.....	37	32	2,400	137	2,537	2,014	103	2,117
	Not reported.....								

n Not reported.

## MARSHALL COUNTY.

1	Brick and tile manufactory.....	2	3	26	26	45	45	100	100	100
2	Buggy and wagon manufactory.....	1	1	89	11	100	90	10	100	100
3	Candy and syrup manufactory.....	1	1	10	6	16	22	8	30	30
4	Cake and biscuit manufactory.....	1	n	10	6	16	22	8	30	30
5	Dry goods and general merchandise.....	5	5	28	34	62	27	28	55	55
6	Electric power, and light, gas, etc.....	1	1	24	24	48	23	1	24	24
7	Furniture and carpets, retail.....	1	1	8	1	9	7	1	8	8

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## MAHASKA COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
9	Groceries, retail .....	1,980		1,980				52					
10	Harness manufactory.....	3,750	480	4,230	2,000		2,000	52	52				
11	Hotel.....	3,104	3,084	6,278	2,610	2,728	5,338	52	52				
12	Laundry, steam.....	3,484	2,756	6,240	2,338	3,325	5,663	52	52	0	10.00		
13	Lumber and planing mill, sash doors, etc.....	10,000	720	10,720	2,226		2,226	52	52	24	7	10.00	
14	Printing and publishing.....	13,508	3,556	17,064	7,876	1,120	8,996	52	52				
15	Structural iron and bridge manufactory.....				8,000		8,000	52	52				
16	Telephone exchange, local.....	3,000	2,920	5,920	3,900	2,100	6,000	52	52				
17	Transfer and livery.....	9,942	485	10,427				52	52				
18	Wholesale egg dealers.....	2,746	56	2,802	2,654		2,654	14					
19	Wholesale grocery.....	20,500	1,010	21,510	26,600	1,000	27,600	52	52			8	20.00
20	Wholesale and retail hardware.....	5,573		5,573	9,433		9,433						
	Total .....	\$1,214,201	\$32,024	\$1,250,157	\$1,157,920	\$29,300	\$1,187,220						

a Average b Includes board and room. c Separate accounts for males and females not reported.

NUMBER WEEKS OPERATED: \*14 full, 10 short.

CAUSE OF INCREASE OR REDUCTION: 1 Demand. 2 Men demanded more. 3 a Organization of men and operators. 4 Labor organized. 5 Efficiency of labor. 6 Demand for labor. 7 Demanded by men. 8 More help and some advances

## MARSHALL COUNTY.

1	Brick and tile manufactory.....	\$ 6,120	...	\$ 6,120	\$ 9,400	...	\$ 9,400	20	22	af 10.00	...	...	...
2	Buggy and wagon manufactory.....	38,161	1,590	39,751	66,100	2,500	68,600	52	52	...	...	...	...
3	Candy and syrup manufactory.....	...	...	...	8,787	9,440	1,520	10,660	52	52	...	...	...
4	Cake and biscuit manufactory.....	5,200	1,200	6,400	...	...	...	52	52	...	...	...	...
5	Dry goods and general merchandise.....	14,410	10,848	25,258	13,700	9,266	22,966	52	52	...	...	...	...
6	Electric power and light, gas, etc.....	13,180	...	13,180	14,001	240	14,241	52	52	...	...	...	...
7	Furniture and carpets, retail.....	5,192	156	5,348	4,000	150	4,150	52	52	...	...	...	...

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## MARSHALL COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
				1899.			1900.			
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.	
8	Groceries and crockery, retail.	1	n	7	1	8				
9	Hardware, retail.	1	1	2	1	3	6	1	7	
10	Hotels.	2	1	28	15	43	2	7	9	
11	Ice, wholesale and retail.	1	n	a		a				
12	Implement dealers, retail.	n	1							
13	Iron works, structural.	1	1	34		34	45		45	
14	Laundry, steam.	2	2	10	19	29	9	20	29	
15	Lumber and planing mills.	1	2	6	1	7	23	2	25	
16	Machine shop and foundry.	1	1	61	1	62	73	2	75	
17	Milling and grain.	1	n	7		7				
18	Printing and publishing.	2	2	61		65	40		40	
19	Pickle and vinegar manufactory.	1	n	9	0	15				
20	Pork packing, cold storage.	1	1	125		125	110	15	125	
21	Stone quarrying and carving.	1	n	124		124				
22	Tallow, hides and wool.	1	1	14		14	15	1	16	
23	Transfer and livery.	2	n	21	1	22				
24	Wholesale grocery.	2	1	34	4	38	28	2	30	
	Total	33	26	778	125	903	569	98	667	

a Average. n Not reported.

## MILLS COUNTY.

1	Neck yoke manufactory.	1	1	5	1	6	2	1	3	
	Total.	1	1	5	1	6	2	1	3	

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## MARSHALL COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
8	Groceries and crockery, retail.	2,940	480	3,420				52					
9	Hardware, retail.	4,000	480	4,480	3,600	480	4,080	52					
10	Hotels.	\$ 10,863	\$ 2,904	\$ 13,597	\$ 13,507	\$ 1,150	\$ 1,800	52	52	2 5 00			
11	Ice, wholesale and retail.	5,000		5,000				52	52	3 5 00			
12	Implement dealers, retail.							12					
13	Iron works, structural.	12,582			3,000		3,090	52	52				
14	Laundry, steam.	5,045	5,074	10,069	10,060		10,060	52	52	10 00		10 00	
15	Lumber and planing mills.	3,470	645	4,115	5,505	5,144	10,149	52	52				
16	Machine shop and foundry.	20,655	480	21,135	13,933	1,105	15,038	52	52				
17	Milling and grain.	4,000		4,000	32,555	780	33,335	52	52	5 2 00			
18	Printing and publishing.	25,897		25,897				40		0 5 00			
19	Pickle and vinegar manufactory.	3,600	1,200	4,800	38,198		38,198	52	52	7 2 00			
20	Pork packing, cold storage.	47,108		47,108				52	52	10 00			
21	Stone quarry and carving.	41,505		41,505				52	52	8 20 00			
22	Tallow, hides and wool.	5,500		5,500	7,000	500	7,500	52	52	9 20 00		8 10 00	
23	Transfer and livery.	4,940	150	5,090				52	52				
24	Wholesale grocery.	28,352	2,080	30,432	30,000	1,200	31,200	52	52	10 5 00			
	Total.	\$ 312,750	\$ 27,599	\$ 340,286	\$ 266,642	\$ 24,035	\$ 290,674						

a Average. b Includes board and room. c Separate accounts for males and females not reported. f Full time, full force. g Reduced time, reduced force. o one establishment only.

NUMBER WEEKS OPERATED: \* 38 full, 14 short. † 36 full, 16 short. ‡ 36 full, 12 short. § 30 full, 22 short. || 26 full, 26 short. ¶ 12 full, 40 short. CAUSE OF INCREASE OR REDUCTION: 1 Scarcity of help. 2 Good business. 3 Increase of business. 4 Scarcity of skilled labor. 5 Good times. 6 Demand for help. 7 Better business. 8 Demanded by labor. 9 Scarcity of skilled help. 10 Better business.

## MILLS COUNTY.

1	Neck yoke manufactory.	\$ 3,150	\$ 350	\$ 3,500	\$ 760	\$ 240	\$ 1,000	52	52				
	Total.	\$ 3,150	\$ 350	\$ 3,500	\$ 760	\$ 240	\$ 1,000						

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## MITCHELL COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Hotel.....	1	1	3	7	10	9		9
2	Tow manufactory.....	1	1	3	7	10	9		9
	Total.....	1	1	3	7	10	9		9

n Not reported.

## MONONA COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	General merchandise, dry goods.....	1	1	5	3	8	10		10
2	Sorghum manufactory.....	1	1	10	10	20	10		10
	Total.....	2	2	15	13	28	20		20

n Not reported.

## MONROE COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Canning vegetables.....	1	1	20	30	50	6	2	8
2	Cigar manufactory.....	2	1	10	4	14	14		14
3	Coal mining.....	3	4	1,203	5	1,208	1,327		1,327
4	Hotel.....	1	1	4	5	9	4	5	9
5	Temperance beverage manufactory.....	n	1				3		3
	Total.....	7	7	1,237	39	1,276	1,340	7	1,347

n Not reported.

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## MITCHELL COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
1	Hotel	\$ 960	\$ 2,040	\$ 3,000				52					
2	Tow manufactory.				\$ 1,554		\$ 1,554		11				
	Total	\$ 960	\$ 2,040	\$ 3,000			\$ 1,554						

b Includes board and room

## MONONA COUNTY.

1	General merchandise, dry goods .....	\$ 2,700	\$ 1,064	\$ 2,764																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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a Railroad extension made help scarce.

## MONROE COUNTY.

1	Canning vegetables.....	\$ 400	\$ 300	\$ 700				6					
2	Cigar manufactory.....	5,000		5,578	\$ 2,700	\$ 300	\$ 3,000	a 50	50	r 2.00		5.00	
3	Coal mining.....	640,064		640,064	733,362		733,362	a 45	45			a 12.50	
4	Hotel.....	b 880		b 1,556	933	b 576	b 1,609		52				
5	Temperance beverage manufactory.....				960		960		52				
	Total.....	\$616,344	\$ 1,554	\$617,898	\$737,955	\$ 876	\$738,931						

a Average; b includes board and room.

CAUSE OF INCREASE OR REDUCTION: r Prosperous business; z miners organized and we made agreement with them.

STATUTORY INVESTIGATION—PART I—CONTINUED.

MONTGOMERY COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Bee hive and tank manufactory.....	1	1	43	1	43	36	1	37
2	Brick and tile manufactory.....	3	4	49		49	53		53
3	Dry goods and general merchandise.....	1	1	2	3	5	2	3	5
4	Hotels.....	2	2	4	10	20	6	18	24
5	Lumber and coal, retail.....	1	1	10		10	10		10
6	Milling and grain.....	1	1	10		10	10		10
7	Printing and publishing.....	1	2	9	1	10	22	21	43
8	Stock food manufactory.....	n	1				3		3
9	Wholesale grocery.....	1	1	5	1	6	5	2	7
	Total.....	11	14	131	22	153	150	45	195

n Not reported.

MUSCATINE COUNTY.

1	Brick and tile manufactories.....	2	4	18		18	28		28
2	Button blank manufactories, pearl.....	7	7	267		267	245		245
3	Button manufactories, pearl, blanks and finishing.....	3	4	70		290	115		450
4	Contractor and builder.....	1	1	16		16	8		17
5	Cigar manufactories.....	2	2	8	11	19	8	9	17
6	Drugs, retail.....	n	2				2		2
7	Dry goods and general merchandise.....	3	3	17	36	53	14	34	48
8	Foundry and structural iron works.....	2	1	10		10	3	1	4
9	Laundry, steam.....	2	1	5	13	18	3	5	8
10	Lumber manufactory, boxes and shooks.....	2	3	352		352	454		454
11	Lumber manufactory, laths and shingles.....	1	n	258	2	260			
12	Lumber, wholesale.....	1	2	248		248	404		404

STATUTORY INVESTIGATION—PART II—CONTINUED.

MONTGOMERY COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)
1	Bee hive and tank manufactory.....	\$ 15,900	\$ 200	\$ 16,100	\$ 10,410	\$ 182	\$ 10,592	* 52	+ 52				
2	Brick and tile manufactory.....	10,351		10,351	10,912		10,912	a 36	a 52				
3	Dry goods and general merchandise.....	800	1,692	2,492	972		2,230	a 52	a 52				
4	Hotels.....	b 579	b 2,385	3,264	3,708	b 2,559	b 6,267	a 52	a 52			of 5.00	
5	Lumber and coal, retail.....	5,340		5,340	6,900		6,900	a 52	a 52				
6	Milling and grain.....	5,688		5,688	5,848		5,848	a 52	a 52				
7	Printing and publishing.....	4,500	200	4,700	9,780	5,225	15,005	a 52	a 52				
8	Stock food manufactory.....				760		760	a 52	a 52				
9	Wholesale grocery.....	2,240	540	2,780	3,500	900	4,400	a 52	a 52				
	Total.....	\$ 45,158	\$ 5,017	\$ 50,175	\$ 52,790	\$ 10,114	\$ 62,904						
a Average. b Include board and room. c One establishment only. d Number of weeks.													

a Average. b Include board and room. c One establishment only. NUMBER WEEKS OPERATED: \* 26 full, 26 short. † 30 full, 22 short.  
CAUSE OF INCREASE OR REDUCTION: / Increase of business.

MUSCATINE COUNTY.

1	Brick and tile manufactories.....	\$ 5,682		\$ 5,682	\$ 8,199		\$ 8,199	30	30				
2	Button blank manufactories, pearl.....	103,163		103,163	92,140		92,140	a	45				
3	Button manufactories, pearl blank and finish.....	25,675	\$ 33,090	58,765	36,550	\$ 48,700	85,250	a	50				a 5
4	Contractor and builder.....	6,400		6,400	2,350		2,350	a	20			3	8.00
5	Cigar manufactories.....	4,247		7,055	4,424		2,516	a	50				
6	Drugs, retail.....				1,100		1,100	a	52				
7	Dry goods and general merchandise.....	7,570	8,704	16,274	7,762		6,943	a	52				
8	Foundry and structural iron works.....	5,110		5,110	3,596		3,717	a	52				
9	Laundry, steam.....	1,600	3,400	5,000	725	1,040	1,765	a	52			2	50
10	Lumber manufactory, boxes and shooks.....	100,393		100,393	153,498		153,498	a	40			5	10.00
11	Lumber manufactory, laths and shingles.....	90,809		91,273				a	52			0	12.50
12	Lumber, wholesale.....	73,490	471	73,961	169,967		169,967	a	52			7	10.00

STATUTORY INVESTIGATION—PART I—CONTINUED.

MUSCATINE COUNTY—CONTINUED.

Marginal number,	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
13	Lumber, sash, door and blind manufacturers.....	1	1	210	.....	210	260	.....	260
14	Machine shop and plumbing.....	2	2	50	2	52	53	1	54
15	Milling, grain and cereals.....	1	1	60	63	123	56	58	114
16	Printing and publishing.....	2	2	24	2	26	28	4	32
17	Saddlery hardware, manufactory.....	2	2	44	2	46	38	2	40
18	Stoneware manufactory.....	1	#	5	.....	5	.....	.....	.....
19	Truck farming, produce commission.....	1	#	10	6	16	.....	.....	.....
20	Wholesale and retail crockery.....	1	1	10	.....	10	10	.....	10
21	Wholesale groceries.....	3	2	30	2	32	20	1	21
	Total.....	37	40	1,711	359	2,070	1,754	450	2,204

# Not reported.

O'BRIEN COUNTY.

1	Brick manufactory.....	1	1	12	.....	12	13	.....	13
2	Wholesale grocery.....	1	1	9	.....	9	10	.....	10
	Total.....	2	2	21	.....	21	23	.....	23

STATUTORY INVESTIGATION—PART II—CONTINUED.

MUSCATINE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
13	Lumber, sash, door and blind manufacturer.	61,922	.....	61,922	76,684	.....	76,684	52	48	8 3.00	.....	.....	.....
14	Machine shop and plumbing.....	25,514	258	25,772	31,270	208	31,478	52	52	9 5.00	.....	.....	.....
15	Milling grain and cereals.....	44,223	.....	44,223	47,117	.....	47,117	48	50	.....	.....	.....	.....
16	Printing and publishing.....	20,370	338	20,708	19,499	820	20,319	52	52	.....	.....	.....	.....
17	Saddlery hardware, manufactory.....	22,306	249	22,555	11,269	181	11,450	52	** 52	10 10.00	..	..	.....
18	Stoneware manufactory.....	1,000	.....	1,000	.....	.....	.....	32	.....	.....	.....	.....	.....
19	Truck farming, produce commission.....	\$ 3,300	\$ 600	\$ 3,900	.....	.....	.....	30	.....	.....	.....	.....	.....
20	Wholesale and retail crockery.....	6,400	.....	6,400	6,400	.....	6,400	52	52	.....	.....	.....	.....
21	Wholesale groceries.....	\$ 22,433	493	22,926	13,058	488	13,546	52	52	11 5.00	..	.....	.....
	Total.....	\$ 80,357	\$ 50,411	\$ 68,011	\$ 68,497	\$ 61,017	\$ 746,631	.....	.....	.....	.....	.....	.....

a Average. # Not reported. c Separate accounts for males and females not reported. NUMBER WEEKS OPERATED: \* 30 full, 22 short. † 16 full, 36 short. ‡ 40 full, 10 short. § 30 full, 22 short. ¶ 27 full, 23 short. \*\* 35 full, 17 short.  
 CAUSE OF INCREASE OR REDUCTION: 1 Demanded by men. 2 Competition, slack business. 3 Demand for buildings and low rate of interest. 4 Faithful service. 5 Demand for labor. 6 Voluntary by firm. 7 Increase of business. 8 Improved conditions. 9 General increase of wages. 10 Good business. 11 Better profits.

O'BRIEN COUNTY.

1	Brick manufactory.....	\$ 2,000	.....	\$ 2,000	\$ 1,500	.....	\$ 1,500	12	.....	.....	.....	.....	.....
2	Wholesale grocery.....	9,000	.....	9,000	10,800	.....	10,800	52	52	16 6.00	.....	.....	.....
	Total.....	\$ 11,000	.....	\$ 11,000	\$ 12,300	.....	\$ 12,300	.....	.....	.....	.....	.....	.....

CAUSE OF INCREASE OR REDUCTION: 1 Increase of business.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## OSCEOLA COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Butter, creamery.....	1	1	.....	.....	.....	4	.....	4
2	Milling, flour and grain.....	1	1	1	6	7	.....	.....	.....
	Total.....	1	1	1	6	7	4	.....	4
Not reported.									

## PAGE COUNTY.

1	Brick and tile manufactory.....	2	1	34	.....	34	18	.....	18
2	Canning, vegetables.....	1	1	200	100	300	250	100	350
3	Coal mining.....	1	1	12	.....	12	5	.....	5
4	Hotel.....	1	1	1	4	5	2	3	5
5	Laundry, steam.....	1	1	2	.....	2	2	.....	2
6	Machine shop and foundry.....	1	1	.....	.....	.....	5	.....	5
7	Nurseries, trees and shrubs.....	2	2	88	6	94	85	12	97
8	Printing and binding.....	2	2	11	3	14	12	3	15
9	Seeds and berries.....	1	1	25	2	27	24	5	29
10	Tailoring merchant.....	1	1	3	4	7	3	4	7
	Total.....	12	12	376	121	497	406	129	535
Not reported.									

## PALO ALTO COUNTY.

1	Cigar manufactory.....	1	1	7	.....	7	7	.....	7
2	Clothing, ready made, retail.....	1	1	5	.....	5	5	.....	5

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## OSCEOLA COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Butter, creamery.....				\$ 640		\$ 640		32				
2	Milling, flour and grain.....			\$ 5,000				52					
	Total.....			\$ 5,000	\$ 640		\$ 640						

Separate accounts for males and females not reported.

## PAGE COUNTY.

1	Brick and tile manufactory.....	\$ 7,000	.....	\$ 7,000	\$ 4,900	.....	\$ 4,900	28	26	.....	.....	.....	.....
2	Canning, vegetables.....	5,000	2,000	7,000	5,500	.....	8,000	18	12	5.00	.....	.....	.....
3	Coal mining.....	3,500	.....	3,500	1,400	.....	1,400	26	12	.....	.....	.....	.....
4	Hotel.....	180	550	730	180	300	570	52	52	.....	.....	.....	.....
5	Laundry, steam.....	360	194	554	360	194	554	52	52	.....	.....	.....	.....
6	Machine shop and foundry.....	.....	.....	.....	2,000	.....	2,000	.....	40	.....	.....	.....	.....
7	Nurseries, trees and shrubs.....	.....	.....	26,200	28,520	2,520	31,040	50	50	10.00	.....	.....	.....
8	Printing and binding.....	4,532	559	5,091	4,721	453	5,174	52	52	2.50	.....	.....	.....
9	Seeds and berries.....	1,200	200	1,400	2,300	1,200	3,500	15	8	15.00	.....	.....	.....
10	Tailoring, merchant.....	1,303	687	1,990	1,320	870	2,190	40	.....	.....	.....	.....	.....
	Total.....	\$ 23,075	\$ 4,190	\$ 27,265	\$ 51,227	\$ 8,127	\$ 59,354	.....	.....	.....	.....	.....	.....

Includes board and room. Separate accounts for males and females, not reported.

NUMBER WEEKS OPERATED: \* 4 full, 8 short.

CAUSE OF INCREASE OR REDUCTION: Demand for labor. Improved business. Better service. Competency.

## PALO ALTO COUNTY.

1	Cigar manufactory.....	\$ 2,800	.....	\$ 2,800	\$ 4,000	.....	\$ 4,000	52	52	.....	.....	.....	.....
2	Clothing, ready made, retail.....	3,150	.....	3,150	1,900	.....	1,900	52	52	.....	.....	.....	.....

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## PALO ALTO COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
		1899	1900	1899.			1900.		
				Males.	Females.	Total.	Males.	Females.	Total.
3	Fence manufactory .....	1	1						
4	Hotel, livery, etc. ....	1	1		7	11		2	2
5	Marble and granite monuments .....	1	1	10	1	20	11	1	12
6	Milling flour and grain .....	1	1	6		6			
7	Real estate and hotel .....	1	1	12	10	22	7	5	12
	Wagon manufactory .....	1	1	5		5	3		3
	Wagon manufactory .....	7	6	58	18	76	35	6	41

n Not reported.

## PLYMOUTH COUNTY.

1	Clothing manufactory .....	1	1	4	6	10	3	4	7
2	Brick and tile works .....	1	1	15		15	10		10
3	Dry goods, general merchandise .....	1	1	10	6	16	12	5	17
4	Electric power, light and water .....	1	1	9	1	10	10		10
5	Hotel .....	1	1	5	10	15	5	10	15
6	Milling flour and cereals .....	2	2	66		66	69		70
7	Printing and binding .....	1	1	11	6	17			
	Total .....	8	7	120	29	149	109	20	129

n Not reported.

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## PALO ALTO COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
3	Fence manufactory .....				1,076		1,076						
4	Hotel, livery, etc. ....	650	1,144	1,794				52					
5	Marble and granite monuments .....	12,000	375	12,375	10,000	350	10,350	46	44	10.00			
6	Milling flour and grain .....	3,500		3,500				50					
7	Real estate and hotel .....	5,327	2,508	7,835	4,110	1,588	5,698	52	52				
	Wagon manufactory .....	2,000		2,000	1,820		1,820	52	52				
	Total .....	\$ 20,427	\$ 4,027	\$ 24,454	\$ 22,926	\$ 1,938	\$ 24,864						

b. Includes board and room.

CAUSE OF INCREASE OR REDUCTION: / Demanded by men. / Some individual increase. NUMBER WEEKS OPERATED: \* 32 full, 20 short.

## PLYMOUTH COUNTY.

1	Clothing manufactory .....	\$ 2,500	\$ 900	\$ 3,400	\$ 1,850	\$ 950	\$ 2,800	50	48				
2	Brick and tile works .....	1,350		1,350	3,050		3,050	8	26			15.00	
3	Dry goods, general merchandise .....	5,016	1,848	6,864	6,322	1,680	8,002	52	52			5.00	
4	Electric power, light and water .....	5,280	720	6,000	5,332		5,332	52	52	0.03			
5	Hotel .....	2,000	1,900	3,900	2,000	1,900	3,900	52	52				
6	Milling flour and cereals .....	33,500		33,500	33,700	600	34,300	50	50				
7	Printing and binding .....	4,646	1,810	6,456				52					
	Total .....	\$ 54,202	\$ 7,178	\$ 61,380	\$ 52,254	\$ 5,130	\$ 57,384						

NUMBER WEEKS OPERATED: \* 40 full, 10 short, / 35 full, 15 short.

CAUSE OF INCREASE OR REDUCTION: / Demand. / Efficiency of help. / Desire to encourage our men.

b. Includes board and room.

STATUTORY INVESTIGATION—PART I—CONTINUED.  
POLK COUNTY.

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NINTH BIENNIAL REPORT OF THE [No. 19]

Marginal number	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
		1899	1900	1899.			1900.			Total.
				Males.	Females.	Total.	Males.	Females.	Total.	
1	Bakeries, biscuits, cakes, bread	4	4	47	20	67	68	30	98	98
2	Bicycles, retail and repairs	2	2	37	6	43	16	2	18	134
3	Bicycle and broom manufactory	1	1	15	5	20	8	3	11	11
4	Boiler manufactory	1	1	8	1	9	8	1	9	8
5	Bottling and mineral water	1	1	4	1	5	5	1	6	6
6	Brick and tile manufactory	3	3	230	24	254	138	2	140	138
7	Candy, jobbing and manufactory	3	3	97	9	106	107	10	117	117
8	Carriage and vehicle manufactory	3	3	65	13	78	51	10	61	61
9	Cigar manufactory	4	4	44	5	49	49	1	50	50
10	Clothing, retail and manufacturing	11	11	868	9	877	925	1	926	926
11	Coal mining	1	1	21	9	30	22	10	32	32
12	Coffee, baking powder and spice dealers	1	1	75	2	77	7	2	9	9
13	Contractor, building, etc.	1	1	9	2	11	8	2	10	10
14	Drugs, wholesale and manufacturing	5	4	167	238	405	55	29	84	84
15	Dry goods and general merchandise	1	1	125	125	250	92	183	275	275
16	Dry good and department store	1	1	55	55	110	51	1	52	52
17	Electric power and lighting	1	1	14	1	15	15	1	16	16
18	Electrotyping and engraving	2	2	65	1	66	86	1	87	87
19	Foundry and machine shop	1	1	20	1	21	18	1	19	19
20	Foranace manufactory	3	3	133	9	142	145	13	158	158
21	Furniture manufactory	1	1	88	2	90	98	3	101	101
22	Gas, manufacture and distribution	3	3	133	9	142	145	13	158	158
23	Glove manufactory	1	1	25	45	70	30	55	85	85
24	Grease and lubricant manufactory	1	1	25	45	70	30	55	85	85
25	Groceries, retail	5	4	124	11	135	118	11	129	129
26	Groceries, wholesale	3	3	15	11	26	89	11	100	100
27	Hardware, wholesale and retail	1	1	10	11	21	11	11	22	22
28	Hotels and restaurants	9	7	177	93	270	175	90	265	265
29	Hosiery manufactory	1	1	18	72	90	20	90	110	110

STATUTORY INVESTIGATION—PART II—CONTINUED.  
POLK COUNTY.

1902]

BUREAU OF LABOR STATISTICS.

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Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.			1899.	1900.	1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.			In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
1	Bakeries, biscuits, cakes, bread	\$ 24,400	\$ 6,337	\$ 30,737	\$ 41,060	\$ 4,800	\$ 45,860	52	52	100.00			
2	Bicycles, retail and repairs	16,500	2,000	18,500	7,400	900	8,300	52	52	215.00			
3	Bicycle and broom manufactory	6,516	835	7,351	4,282	456	4,738	49	49	10.00			
4	Boiler manufactory	3,460	209	3,669	3,619	172	3,791	52	52				
5	Bottling and mineral water	1,450	209	1,659	2,061	450	2,511	52	52				
6	Brick and tile manufactory	76,053	6,053	82,106	59,814	450	60,264	40	40				
7	Candy, jobbing and manufactory	52,027	2,547	54,574	40,250	2,050	42,300	52	52				
8	Carriage and vehicle manufactory	27,839	1,732	29,571	27,308	1,962	29,270	52	50				
9	Cigar manufactory	29,823	1,970	31,793	543,998	360	544,358	52	52	712.5		12.00	
10	Clothing, retail and manufacturing	427,360	2,800	430,160	22,201	2,180	24,381	52	52				
11	Coal mining	17,000	2,800	19,800	19,800	2,180	21,980	40	40	395.00			
12	Coffee, baking powder and spice dealers	35,029	750	35,779	5,785	960	6,745	52	52				
13	Contractor, building, etc.	6,000	750	6,750	5,785	960	6,745	52	52				
14	Drugs, wholesale and manufacturing	85,623	48,694	134,317	29,657	25,583	55,240	52	52	6510.00			
15	Dry goods and general merchandise	25,192	25,192	50,384	24,501	430	24,931	52	52	6.50			
16	Dry good and department store	9,502	500	10,002	11,570	450	12,020	52	52	7.50			
17	Electric power and lighting	38,676	500	39,176	45,403	450	45,853	52	52				
18	Electrotyping and engraving	11,000	400	11,400	10,000	400	10,400	52	48				
19	Foundry and machine shop	56,587	3,422	60,009	58,560	5,195	63,755	52	52	210.00			
20	Foranace manufactory	17,000	2,800	19,800	19,800	2,180	21,980	52	52				
21	Furniture manufactory	11,000	400	11,400	10,000	400	10,400	52	48				
22	Gas, manufacture and distribution	15,000	12,000	27,000	18,000	15,000	33,000	52	52				
23	Glove manufactory	15,000	12,000	27,000	18,000	15,000	33,000	52	52				
24	Grease and lubricant manufactory	66,300	4,370	70,670	69,900	4,216	74,116	52	52	10.00			
25	Groceries, retail	92,800	7,276	100,076	71,468	7,536	79,004	52	52	2.75			
26	Groceries, wholesale	7,480	520	8,000	8,000		8,000	52	52	11.00			
27	Hardware, wholesale and retail	57,885	17,300	75,185	62,768	13,830	76,598	52	52				
28	Hotels and restaurants	4,926	12,835	17,761	5,794	16,946	22,740	52	51	12			
29	Hosiery manufactory	4,926	12,835	17,761	5,794	16,946	22,740	52	51	12			

STATUTORY INVESTIGATION—PART I—CONTINUED.

POLK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
				1899.			1900.			
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.	
30	Ice cutting and distribution.....	2	2	47		47	15		15	
31	Insurance, fire, lightning, etc.....	5	6	38	15	53	53	19	71	
32	Insurance, life.....	6	4	97	20	117	76	17	93	
33	Laundry, steam.....	1	2	32	70	102	10	28	38	
34	Linsed cake and oil manufactory.....	2	1	24		24	25		25	
35	Lumber, wholesale and retail.....	2	2	64		64	42		42	
36	Medicine, proprietary manufactory.....	1	1	41	71	112	47	87	134	
37	Milling, flour and cereals.....	1	N	22		22				
38	Monuments, marble and bronze.....	3	3	25	2	27	21	2	23	
39	Nursery, trees and shrubs.....	1	1	50	3	53	50		50	
40	Painters, decorators and wall paper.....	3	1	73		73	40		40	
41	Paper box manufactory.....	1	N	6	10	16				
42	Peanut and coffee roaster machine manufactory.....	1	N	26	4	30				
43	Planing mill, wood fixture manufactory.....	3	3	70		70	74		74	
44	Plumbing and steam fitting.....	3	4	37		37	40	1	47	
45	Printing and publishing.....	7	9	280	50	330	346	109	455	
46	Pump, windmill and scale manufactory.....	2	3	74	1	75	95	2	97	
47	Seeds, wholesale and retail.....	1	N	15	15	30				
48	Shoes, retail.....	3	3	23	4	27	25	6	31	
49	Soap manufactory.....	1	1	12	3	15	12	3	15	
50	Starch manufactory.....	1	1	186	42	228	192	44	236	
51	Street railway.....	1	N	251		251				
52	Suspender manufactory.....	2	1	8		45				
53	Telephone exchange (local).....	N	1					10	10	
54	Tent and awning manufactory.....	1	1	13	8	21	13	7	20	
55	Transfer, storage and express.....	6	4	103	4	107	58	1	59	
56	Trunk and bag manufactory.....	1	1	7		7	6		6	
57	Typewriter manufactory.....	1	1	166	9	175	201	16	217	
58	Vinegar and pickle manufactory.....	1	1	18	10	28	14	10	24	
59	Wall paper manufactory.....	1	1	100		100	50		50	

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NINTH BIENNIAL REPORT OF THE [No. 19]

STATUTORY INVESTIGATION—PART II—CONTINUED.

POLK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males	Females.	Total.	1899	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
30	Ice cutting and distribution .....	18,027		18,027	6,680		6,680	32	30	13 10.00			
31	Insurance, fire, lightning, etc .....	38,880	6,940	45,820	50,406	8,757	59,163	52	52				
32	Insurance, life .....	103,377	9,550	112,927	72,724	8,527	81,251	52	52	14			
33	Laundry steam .....	16,748	18,241	34,989	4,581	8,690	13,271	52	52	15 5 00 0			
34	Linsseed cake and oil manufactory .....	12,185		12,185	11,560		11,560	52	52				
35	Lumber, wholesale and retail .....	29,800		29,800	23,000		23,000	50	52				
36	Medicine, proprietory factory manufactory .....	35,213	17,745	52,958		19,450	61,450	52	52				
37	Milling, flour and cereals .....	15,840		15,840				52					
38	Monuments, marble and bronze .....	14,819	671	15,500	10,767	800	11,567	48	40	16 2.00			
39	Nursery, trees and shrubs .....	15,000	500	15,500	17,335		17,335	8		17 10.00			
40	Painters, decorators and wall paper .....	23,500	990	24,490	10,000		10,000	50	50				
41	Paper box manufactory .....			3,500				50	50				
42	Peanut and coffee roaster machine manufactory .....	16,000	1,586	17,586				50	50	18 10.00			
43	Planing mill, wood fixture manufactory .....	40,191		40,191	39,657		39,657	52	52				
44	Plumbing and steam fitting .....	22,525		22,525	28,512	203	28,715	50	50	19 10.00			
45	Printing and publishing .....	146,486	23,141	169,627	214,096	37,577	251,673	52	52			20 5.00	
46	Pump, windmill and scale manufactory .....	42,483	520	43,003	58,758	1,080	59,838	52	52	27 12.00			
47	Seeds, wholesale and retail .....			13,282				52	52				
48	Shoes, retail .....	14,752	1,344	16,096	13,718	1,772	15,490	52	52				
49	Soap manufactory .....	4,214	936	5,150	8,252	1,352	9,604	31	52				
50	Starch manufactory .....	80,222	9,819	90,041	87,441	10,015	97,456	52	52				
51	Street railway .....	139,911		139,911				52	52				
52	Suspender manufactory .....	5,000	5,738	10,738		1,590	1,590	52	52	27 10.00			
53	Telephone exchange (local) .....				10,072	8,089	24,781	52	52				
54	Tent and awning manufactory .....	2,604	1,228	3,832	3,651	1,274	4,925	41	52				
55	Transfer, storage and express .....	54,615	1,452	56,067	31,607	480	32,087	52	52				
56	Trunk and bag manufactory .....	2,750		2,750	2,500		2,500	52	52	10.00			
57	Typewriter manufactory .....	66,716	4,662	71,378	71,834	6,282	78,116	50	51	27 5.00			
58	Vinegar and pickle manufactory .....	10,108	1,743	11,851	7,093	2,519	9,612	52	52				
59	Wall paper manufactory .....	20,000		20,000	15,000		15,000	52	52				

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BUREAU OF LABOR STATISTICS.

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STATUTORY INVESTIGATION—PART I—CONTINUED.

POLK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.						
				1899.			1900.			
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.	
60	Wholesale boots and shoes	1	1	26	2	28	30	2	32	
61	Wholesale butter and eggs	1	1	8		8				
62	Wholesale and retail china and crockery	1	1	8		8	15		15	
63	Wholesale dry goods and notions	1	1	8		8	6		6	
64	Wholesale and retail dental supplies	1	1	12	1	13	8	3	11	
65	Wholesale furnishing goods	1	1	12		12	11		11	
66	Wholesale fruits and produce	1	1	35		35	33		33	
67	Wholesale and retail hardware	1	1	20		20	8		8	
68	Wholesale meats and provisions	1	1	8		8				
69	Wholesale millinery	2	1	50	80	130	40	185	225	
70	Wholesale oils	1	1	30		30	22		22	
71	Wholesale paper and wooden ware	1	1	15	2	17	20	15	35	
72	Whole ale wagons and farm implements	1	2	24	4	28	34	6	40	
73	Woolen goods manufactory	1	1	44	52	96	55	60	115	
	Total	153	135	4,860	1,230	6,090	4,178	1,259	5,437	

POTTAWATTAMIE COUNTY.

1	Agricultural implement manufactory	1	1	14		14	9		9	
2	Agricultural implements, sales agencies	12	11	102	25	127	168	18	186	
3	Brick and tile works	3	3	56		56	47		47	

STATUTORY INVESTIGATION—PART II—CONTINUED.

POLK COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
60	Wholesale boots and shoes	c	c	12,000	12,000	600	12,600	52	52				
61	Wholesale butter and eggs	4,950		4,950				50					
62	Wholesale and retail china and crockery			8,665	8,665			52					
63	Wholesale dry goods and notions	5,543		5,543	5,000			52					
64	Wholesale and retail dental supplies			11,340	1,500		12,840	52					
65	Wholesale furnishing goods	8,000	1,000	9,000	10,000		10,000	52					
66	Wholesale fruits and produce	\$ 13,000		\$ 13,000	\$ 30,000		\$ 30,000	52	52				
67	Wholesale and retail hardware	26,700		26,700	6,000	\$ 600	6,600	52	52				
68	Wholesale meats and provisions	5,350		5,350				52					
69	Wholesale millinery	c	c	57,316	32,000	7,000	39,000	52	52				
70	Wholesale oils	20,250		20,250	17,340		17,340	52	52	25 10 00			
71	Wholesale paper and wooden ware	10,000	700	10,700	13,000	500	13,500	52	52	27 5 00			
72	Wholesale wagons and farm implements	21,254	1,716	22,970	36,160	2,640	38,800	52	52				
73	Woolen goods manufactory	c	c	31,118			34,500	52	52				
	Total	\$2,294,596	\$ 236,290	\$2,530,886	\$2,240,253	\$ 208,532	\$2,448,785						

a Average. b Includes room and board. c Separate accounts for males and females not reported. d Not reported. e One establishment only.  
 CAUSE OF INCREASE OR REDUCTION: 1 Voluntary account; good business. 2 General prosperity. 3 Demanded by men. 4 Efficiency of help. 5 Prosperity. 6 Improved times. 7 Better business. 8 Better service. 9 25 per cent more employees. 10 Gold standard and scarcity of help. 11 General advance, better business. 12 Scarcity laundry hands. 13 Increase of business. 14 Scarcity of labor. 15 Demanded by labor. 16 8 hour day established. 17 Agreement with unions. 18 Increased efficiency. 19 Better times. 20 Competency. 21 Voluntary. 22 Increased cost of living.  
 NUMBER WEEKS OPERATED: \* 30 full, 19 short. † 26 full, 26 short. ‡ 30 full, 20 short. § 40 full, 12 short. || 22 full, 30 short. \*\* 26 full, 24 short. †† 30 full, 22 short. ‡‡ 34 full, 1 short. §§ 16 full, 34 short. ¶¶ 18 full, 32 short. §§ 36 full, 16 short. ||| 26 full, 26 short. ††† 30 full, 20 short. §§§ 48 full, 4 short. ¶¶¶ 40 full, 12 short. |||| 35 full, 17 short. \*\*\* 20 full, 32 short. ||||| 40 full, 12 short. \*† 30 full, 22 short. †††† 20 full, 32 short.

POTTAWATTAMIE COUNTY.

1	Agricultural implement manufactory	\$ 6,677		\$ 6,677	\$ 4,604		\$ 4,604	52	50	12.5			
2	Agricultural implements sales agencies	176,393	\$ 12,348	188,741	132,957	9,874	142,831	52	51	20		7.5	
3	Brick and tile works	12,070		12,070	9,144		9,144	26	22	15			

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## POTTAWATTAMIE COUNTY—CONTINUED.

Marginal number	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
4	Buggy and carriage manufactory	1	1	58	6	64	62	7	69
5	Cigar jobbing and manufactory	1	1	7		7	9		9
6	Dry goods and millinery	1	1	7	15	22			
7	Dyeing and cleaning	1	1	4	5	9	2	3	5
8	Electric power, light and heat	1	1	17		17	17		17
9	Furniture, carpets, hardware, retail	3	2	28	2	30	28		28
10	Hotels	3	2	45	32	77	27	18	45
11	Ice and wood, retail	1	1	10		10	10		10
12	Laundry, steam	3	3	18		92	19		89
13	Lumber, whole sale	1	1	6	74			70	
14	Milling, flour and grain	2	2	18		18	10		10
15	Oils and grease manufactory	1	1	25		25	8		8
16	Painting, decorating and wall paper	1	1	10		10			
17	Pickles, vinegar and jelly manufactory	1	1				10		10
18	Plumbing and steam fitting	1	1				17	5	22
19	Printing and publishing	3	3	40		30	31	1	32
20	Sash, doors and blind manufactory	1	1	4	4	50	50	10	60
21	Scale and weighing machine manufactory	1	1	5		5	20		20
22	Tailoring and garments	1	1	25		25			
23	Transfer and storage	1	1	8	1	9	8	1	9
24	Water works	1	2	20		20	28	3	31
25	Wholesale drugs	1	1	14		14	10		10
26	Wholesale groceries	1	1	17	1	18	25		25
27	Wholesale hardware	2	2	49	2	51	35	2	37
28	Wholesale potteryware	1	1	17		17	18		18
	Total	50	46	769	170	939	704	141	845

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## POTTAWATTAMIE COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
4	Buggy and carriage manufactory.....	19,127	1,362	20,689	19,950	2,650	22,600	50	50				
5	Cigar jobbing and manufactory.....	1,800		1,800	3,500		3,500	52	52				
6	Dry goods and millinery.....	3,300	2,730	6,110				52	52				
7	Dyeing and cleaning.....	1,750	1,625	3,375	936	812	1,748						
8	Electric power, light and heat.....	12,512		12,512	12,071		12,071	52	52	17.5			
9	Furniture, carpets, hardware, retail.....	10,622	840	11,462	10,500		10,500	52	52	10.00			
10	Hotels.....	10,600	8,252	18,852	7,860	5,736	13,596	52	52				
11	Ice and wood, retail.....	4,063		4,063	4,288		4,288	52	52				
12	Laundry, steam.....	9,510	18,150	27,700	10,150	18,500	28,650	52	52	15.			
13	Lumber, wholesale.....	4,000		4,000									
14	Milling, flour and feed.....	13,325		13,325	13,700		13,700	50	50	7.00			
15	Oils and grease manufactory.....	15,528		15,528	3,500		3,500	49	49	10.00			
16	Painting, decorating and wall paper.....	6,000		6,000			6,000	52	52				
17	Pickles, vinegar and jelly manufactory.....				8,000	1,000	9,000		52				
18	Plumbing and steam fitting.....	11,565		11,565	16,333	400	16,813	52	52	1020.00			
19	Printing and publishing.....	31,000	1,000	32,000			32,000	52	52				
20	Sash, doors and blind manufactory.....	1,200		1,200	15,000		15,000	52	52	17.50			
21	Scale and weighing machine manufactory.....	15,000	300	15,300				52	52	12.00			
22	Tailoring and garments.....				4,228	304	4,665						
23	Transfer and storage.....	7,000		7,000	12,000	1,360	14,263	52	52				
24	Water works.....	8,430		7,430	13,000		13,000	52	52				
25	Wholesale drugs.....	20,000	300	20,300	22,000		22,000	52	52			13.00	
26	Wholesale groceries.....	35,500	360	36,860	30,000	500	31,100	52	52				
27	Wholesale hardware.....	10,500		10,500	13,500		13,500	52	52				
28	Wholesale potteryware.....	14,000	900	14,900	11,917	93	12,847	52	52	4.50			
	Total.....	\$ 167,404	\$ 48,167	\$ 215,571	\$ 210,700	\$ 301,674	\$ 512,374						

a Average. b Includes board and room. c Separate account for males and females not reported. d One establishment only.  
 \* Demand by help. f Demand by labor. g Demand by labor. h Demand by labor. i Demand by labor. j Demand by labor. k Demand by labor. l Demand by labor. m Demand by labor. n Demand by labor. o Demand by labor. p Demand by labor. q Demand by labor. r Demand by labor. s Demand by labor. t Demand by labor. u Demand by labor. v Demand by labor. w Demand by labor. x Demand by labor. y Demand by labor. z Demand by labor. aa Demand by labor. ab Demand by labor. ac Demand by labor. ad Demand by labor. ae Demand by labor. af Demand by labor. ag Demand by labor. ah Demand by labor. ai Demand by labor. aj Demand by labor. ak Demand by labor. al Demand by labor. am Demand by labor. an Demand by labor. ao Demand by labor. ap Demand by labor. aq Demand by labor. ar Demand by labor. as Demand by labor. at Demand by labor. au Demand by labor. av Demand by labor. aw Demand by labor. ax Demand by labor. ay Demand by labor. az Demand by labor. ba Demand by labor. bb Demand by labor. bc Demand by labor. 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## STATUTORY INVESTIGATION—PART I—CONTINUED.

## POWESHIEK COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile works.....	2	"	12		12			
2	Carriage and wagon manufactory.....	1	1	145	5	150	155	5	160
3	Contractor and builder.....	1	1	32		32	25		25
4	Dry goods and general mer. handise.....	2	2	4	10	14	7	7	14
5	Glove and mitten manufactory.....	1	1	52	40	92	47	45	92
6	Hardware, retail, and plumbing.....	1	1	6		6	6		6
7	Hotels.....	3	1	9	20	29	4	8	12
8	Laundry, steam.....	"	1				2	5	7
9	Meat market and exchange of stock.....	1	1	7		7	8		8
10	Printing, binding and publishing.....	1	1	6		6	10		10
11	Wholesale butter and eggs.....	1	"	9	1	10		4	4
	Total.....	14	10	282	82	364	264	74	338

" Not reported.

## SAC COUNTY.

1	Canning.....	"	1				200	150	350
2	Farming and stock raising.....	2	2	160	22	182	185	2	187
3	Wholesale produce.....	1	1	5		5	11		11
	Total.....	3	4	165	22	187	396	152	548

" Not reported.

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## POWESHIEK COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Brick and tile works.....	\$ 2,700		\$ 2,700				20	52	5.00			
2	Carriage and wagon manufactory.....	74.605	\$ 1,700	76,305	\$ 78,847	\$ 1,785	\$ 80,632	52	52				
3	Contractor and builder.....	13,500		13,500	9,435		9,435	40	52	10.00			
4	Dry goods and general merchandise.....	2,65	3,876	6,526	2,510	3,850	6,360	52	52				
5	Glove and mitten manufactory.....	32,608	9,451	42,059	21,950	13,460	35,410	50	52				
6	Hardware, retail, and plumbing.....	3,500		3,500	3,922		3,922	52	52				
7	Hotels.....	c	c	6,350	1,320	1,250	2,570	52	52				
8	Laundry, steam.....			720	1,630		2,350	52	52				
9	Meat market and exchange of stock.....	3,328		3,328	3,900		3,900	52	52				
10	Printing, binding and publishing.....	3,500	1,600	5,100	3,000	1,600	4,600	52	52				
11	Wholesale butter and eggs.....	1,093	215	1,308				52	52	8.00			
	Total.....	\$ 136,094	\$ 16,842	\$ 152,936	\$ 125,614	\$ 23,576	\$ 149,190						

b Includes board and room. c Separate accounts for males and females not reported.

NUMBER WEEKS OPERATED: \* 35 full, 17 short. † 36 full, 10 short. ‡ 6 full, 46 short. § 32 full, 20 short. ¶ 36 full, 14 short. †† 40 full, 12 short.

CAUSE OF INCREASE OR REDUCTION. / Scarcity of help. 2 Increase of business. 3 Demand for labor.

## SAC COUNTY.

1	Canning.....			\$ 6,000	\$ 2,000	\$ 8,000	6						
2	Farming and stock raising.....	c	c	\$ 32,494	c	\$ 42,431	50	52					
3	Wholesale produce.....	1,040		1,040	3,581		3,581	20	20				
	Total.....	\$ 1,040		\$ 33,534	\$ 6,581	\$ 2,000	\$ 41,012						

NUMBER WEEKS OPERATED: \* 40 full, 10 short. † 37 full, 15 short. b Includes board and room. c Separate accounts for males and females not reported.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Agricultural implement, sales agencies	1	1	6		6		6	
2	Agricultural implement manufactory	1	1			60		60	
3	Axles and brake beam manufactory	1	1	97	1	98	122	1	123
4	Bread bakery	1	1	15	2	17			
5	Broom and duster manufactory	3	2	66		66	44		44
6	Button (pearl) manufactory	1	1	15		15			
7	Button (pearl) manufactory	2	2	89	155	244	95		95
8	Candy and cracker manufactory	2	1	94	72	166	53	61	114
9	Canning and manufacturing cans	1	1	108	67	175	95	50	145
10	Cigar manufactory	1	1	126	277	403	118	237	355
11	Cigar box manufactory	1	1	24		24	15	21	36
12	Coal mining	1	1	20		20	12		12
13	Coffee roasting and baking powder manufactory	1	1	16	13	29	32	11	43
14	Construction and contracting	1	2	11		11	105		105
15	Coopering kegs and barrel manufactory	1	2	7		7	12		12
16	Department stores, general merchandise	1	1	181	173	354	168		168
17	Furniture manufactory	1	1	45		45	175		175
18	Furniture and carpets, retail	2	2	10		10	22		22
19	Grain and commission	3	3	52	3	55	50	2	52
20	Groceries, retail	1	1	7	1	8	7	1	8
21	Groceries, wholesale	3	3	53		53	54		54
22	Heavy hardware and merchant iron, wholesale	2	2	22		22	23		23
23	Hotels	3	2	72	52	124	36	35	71
24	Insurance, life	2	1	38	2	40	20	1	21
25	Laundry, steam	2	1	17		17	3		3
26	Livery	3	1	38	40	78	3	9	12
27	Lumber and planing mills	3	3	455		455	431		431
28	Macaroni manufactory	1	1	22	60	82	22	62	84

## STATUTORY INVESTIGATION—PART II—CONTINUED

SCOTT COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Agricultural implement, sales agencies	\$ 2,600		\$ 2,600	\$ 3,125		\$ 3,125	52	52				
2	Agricultural implement manufactory				15,000		15,000		52				
3	Axles and brake beam manufactory			\$ 55,640		62,000	62,520	52	52				
4	Bread bakery	6,400	\$ 440	6,840				52	52				
5	Brick and tile works	20,319		20,319	10,878		10,878	52	30				
6	Broom duster manufactory	11,761	1,851	13,612				52	52				
7	Button (pearl) manufactory	1,200	960	2,160				10	6				
8	Button (pearl) manufactory	33,938	23,058	56,996	44,000	30,000	74,000	48	50				
9	Candy and cracker manufactory	\$ 54,268	\$ 14,979	\$ 69,247	\$ 24,916	\$ 6,811	\$ 31,727	52	52				
10	Canning and manufacturing cans	5,800	2,170	7,970	10,000	8,500	18,500	52	34				
11	Cigar manufactory			140,700			121,096	52	52				
12	Cigar box manufactory	6,000	5,800	11,800	5,950	5,840	11,820	52	52				
13	Coal mining	3,000		3,000	3,517		3,517	20	40				
14	Coffee roasting and baking powder man'ct'ry	28,034	3,016	31,050	29,555	3,660	33,215	52	52				
15	Construction and contracting	48,320		48,320	63,073		63,073	52	52				
16	Coopering kegs and barrel manufacturing	3,511		3,511	6,508		6,508	52	52				
17	Department stores, general merchandise	90,855	53,384	144,239	92,005	53,629	145,634	52	52				
18	Furniture manufactory	15,175		15,175				52	52				
19	Furniture and carpets, retail	7,350	574	7,924	13,893	710	14,603	52	52				
20	Grain and commission	32,467	1,436	33,903	35,894	1,000	36,894	52	52				
21	Groceries, retail	43,213	540	43,753	3,500		3,812	52	52				
22	Groceries, wholesale			43,789	41,007		538	52	52				
23	Heavy hardware and merchant iron, wholesale	17,582		17,582	21,028		21,028	52	52				
24	Hotels	\$ 21,016	\$ 7,015	\$ 28,031	\$ 8,804	\$ 6,564	\$ 15,368	52	52				
25	Insurance, fire	41,053	1,000	42,053	17,248	500	17,748	52	52				
26	Laundry, steam	7,616	10,639	18,255	3,500		3,500	52	52				
27	Livery	3,000		3,000				52	52				
28	Lumber and planing mills	174,953		174,953	179,735		179,735	52	52				
29	Macaroni manufactory			\$ 17,493			\$ 18,146						

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## SCOTT COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
		1899	1900	1899.			1900.		
				Males.	Females.	Total.	Males.	Females.	Total.
30	Machine shop and foundry.....	1	1	70		70	75		75
31	Malt and brewing.....	1	1	11		11	11		11
32	Merchant tailoring.....	2	1	16		18	12		14
33	Milling, flour and cereals.....	3	2	33	1	34	26	1	27
34	Monuments, marble and granite.....	1	1	12		12	14		14
35	Overalls, shirts and pants manufactory.....	2	2	52	141	193	46	130	176
36	Packing, meats and provisions.....	1	H	40		40			
37	Paint manufactory.....	H	H				30	10	40
38	Paper dealers and box manufactory.....	1	H	2	12	14			
39	Plumbing and heating supplies.....	1	1	20		20			
40	Printing, binding and publishing.....	6	4	137	26	163	94	15	109
41	Pump and well supply manufactory.....	1	1	25		25	25		25
42	Saddlery manufactory.....	1	1	25		25	25		25
43	Sash, door and blind manufactory.....	1	2	35		35	58		58
44	Shoes, retail.....	2	1	14	9	23	5	1	6
45	Shoes, wholesale.....	1	1	5	1	6			
46	Show case manufactory.....	1	1	6		6	7		7
47	Soap manufactory.....	1	H						
48	Street railway.....	1	H	4		4			
49	Sugar and syrup manufactory.....	1	H	270		270	334		334
50	Telephone service (covering all branches in state, see miscellaneous tables)...	1	H	308	13	321			
51	Transfer and expressing.....	1	H	15		15			
52	Vinegar and pickle manufactory.....	1	1	27	9	36	28		28
53	Washing machine manufactory.....	1	2	70		70	90		90
54	Water supply.....	1	1	15		15	20		20
55	Wheel (iron) manufactory.....	1	1	316		316	288		288
56	Wholesale crockery and glassware.....	2	2	21	6	27	20	6	26
57	Wholesale fruits and produce.....	1	1	17	3	20	18	3	21
58	Wholesale hardware.....	1	H	23	3	26	22	3	25
59	Wholesale poultry, butter and eggs.....	1	H	20		20			

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## SCOTT COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING				
		1899.			1900.					1899.		1900.		
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)	
30	Machine shop and foundry.....	36,664		36,664	38,230		38,230	52	52					
31	Malt and brewing.....	8,092		8,092	8,294		8,294	52	52					
32	Merchant tailoring.....	4,000	600	4,600	5,100	840	6,000	52	52					
33	Milling, flour and cereals.....	19,355	625	19,980	13,864	600	14,464	52	52					
34	Monuments, marble and granite.....	7,442		7,442	7,300		7,300	50	50					
35	Overalls shirts and pants manufactory.....	10,990	21,296	32,282	17,425	21,648	39,073	52	52	130	100			
36	Packing, meats and provisions.....	19,000		19,000				52	52					
37	Paint manufactory.....				7,466	2,222	9,688		50					
38	Paper dealers and box manufactory.....	€	€	€ 2,528				52	52					
39	Plumbing and heating supplies.....	10,221		10,221	9,000	300	9,300	52	52	14	20.00			
40	Printing, binding and publishing.....	25,216	5,035	30,251	53,386	2,860	56,246	52	52			15	7.5	
41	Pump and well supply manufactory.....	12,000		12,000	12,000		12,000	52	52					
42	Saddlery manufactory.....	13,000		13,000	13,500		13,500	52	52	10	10.00			
43	Sash, door and blind manufactory.....	20,025		20,025	34,189		34,189	52	52	17	10.00		18	3.00
44	Shoes, retail.....	6,562	2,694	9,256	3,072	255	3,327	52	52					
45	Shoes, wholesale.....	3,625	105	3,730	3,700		3,700	52	52					
46	Show case manufactory.....	3,000		3,000	3,700		3,700	52	51			10	10.60	
47	Soap manufactory.....	900		900				52	52					
48	Street railway.....	116,633		116,633	142,347		142,347	52	52	20	10.00		21	10.00
49	Sugar and syrup manufactory.....	161,166	2,150	163,316				52	52		12.00			
50	Telephone service (see miscellaneous table).....													
51	Transfer and expressing.....	10,500		10,500				52	52					
52	Vinegar and pickle manufactory.....	15,000		15,000			€ 10,700	52	52					
53	Washing machine manufactory.....	29,668		29,668	37,148		37,148	52	52	75	00			
54	Water supply.....	15,940		15,940	27,223		27,223	52	52					
55	Wheel (iron) manufactory.....	145,159		145,159	127,777		127,777	52	51					
56	Wholesale crockery and glassware.....	13,800	2,025	15,825	14,995	2,200	17,195	52	52					
57	Wholesale fruits and produce.....	12,798	1,000	13,798	14,555	1,616	16,171	52	52	9	00			
58	Wholesale Hardware.....	21,131	1,440	22,571	19,220	1,440	20,660	52	52					
59	Wholesale poultry, butter and eggs.....	10,400		10,400				52	52					

STATUTORY INVESTIGATION—PART I—CONTINUED.

SCOTT COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
		1899	1900	1899.			1900.		
				Males.	Females.	Total.	Males.	Females.	Total.
60	Window and plate glass bevelers.....	1	n	60		66			
61	Woolen goods manufactory.....	1	1	30	54	84	36	46	82
	Total.....	94	76	3,392	1,250	4,642	2,927	1,077	4,004
	n Not Reported.								

SIoux COUNTY.

1	Milling, flour and cereals.....	1	1	15		15	17		17
2	Hotel.....	1	n	1	4	5			
	Total.....	2	1	16	4	20	17		17
	n Not reported.								

STORY COUNTY.

1	Brick and tile works.....	1	1	4		4	5		5
2	Dry goods and general merchandise.....	1	n	2	4	6			
3	Restaurant.....	1	1	10		10	8		8
4	Wholesale produce.....	1	1	14		14	14		14
	Total.....	4	3	30	4	34	27		27
	n Not reported.								

STATUTORY INVESTIGATION—PART II—CONTINUED.

SCOTT COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
60	Window and plate glass bevellers. ....	24,000		24,000				\$ 52		5 00			
61	Woolen goods manufactory .....	15,632	10,021	25,653	18,036	12,576	30,612	50	52				
	Total .....	\$1,530,699	\$ 175,782	\$1,921,242	\$ 1,338.	\$ 165,199	\$1,662,520						

a One establishment only. b Includes board and room. c Slight increase, more work. d Quit manufacturing.  
 e Separate accounts for males and females, not reported.  
 CAUSE OF INCREASE OR REDUCTION: 1 Wages of efficient employees raised. 2 Prosperity. 3 More work with less help. 4 Favorable conditions. 5 Demand for coal. 6 Better business. 7 Plenty business. 8 Better business. 9 More work, more pay. 10 System and order. 11 Increase of work. 12 Seniority deserves more. 13 More expert operators. 14 Increase of business demanded higher wages. 15 Union scale paid. 16 Increase in cost of living. 17 Demand for men. 18 Demanded by men. 19 Better prices. 20 Increase of business and reduction of hours. 21 Train men deserved it.  
 NUMBER WEEKS OPERATED: \* 36 full, 16 short. † 49 full, 3 short. ‡ 20 full, 32 short. § 40 full, 12 short. || 30 full, 22 short. ¶ 45 full, 6 short. \*\* 40 full 12 short. †† 48 full, 4 short.

SIoux COUNTY.

1	Milling, flour and cereals.....	\$ 7,351		\$ 7,351	\$ 8,306		\$ 8,306	30	52	10.00					
2	Hotel.....	60	575	635				52							
	Total.....	\$ 7,411	\$ 575	\$ 7,986	\$ 8,306		\$ 8,306								

a Includes board and room.  
 CAUSE OF INCREASE OR REDUCTION: 1 Good business.

STORY COUNTY.

1	Brick and tile works.....	\$ 350		\$ 350	\$ 880		\$ 880	20		75.00					
2	Dry goods and general merchandise.....			1,750											
3	Restaurant.....	3,600		3,600	3,600		3,600								
4	Wholesale produce.....	7,000		7,000	7,500		7,500	52	52						
	Total.....	\$ 10,950		\$ 12,700	\$ 11,980		\$ 11,980								

a Board and room included. b Separate accounts for males and females, not reported.  
 CAUSE OF INCREASE OR REDUCTION: 1 Refitting works.  
 NUMBER WEEKS OPERATED: \* 30 full, 22 short. † 40 full 12 short.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## TAMA COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Brick and tile works	3	3	42		42	39		39
2	Broom manufactory and milling	1	1	10		10	3		3
3	Egg case and straw board manufactory	1	1	65		65			
4	Hotels and restaurants	2	2	4	40	44			
5	Machine shop, repairing	1	1	19	1	20			
	Total	8	4	140	49	189	42		42
* Not reported.									

## TAYLOR COUNTY.

1	Bank and creamery	1	1	3		3	2		2
2	Brick and tile work	1	1	8		8	11		11
3	Contracting, building, etc	1	1	5		5	9		9
4	Coal mining	3	1	78		78	18		18
5	Hotel	1	1	3		3	6		6
6	Printing and binding	1	1	0	1	1	3	3	6
	Total	8	5	103	4	107	43	3	46
* Not reported.									

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## TAMA COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Brick and tile works	\$ 11,940		\$ 11,940	\$ 13,461		\$ 13,461	30	34			102.00	
2	Broom manufactory and milling	4,230		4,230	900		900	52					
3	Egg case and straw board manufactory	22,628	6,929	29,557				52		210.00			
4	Hotels and restaurants	6,080	2,280	8,360				52					
5	Machine shop, repairing	3,500	64	3,564				16					
	Total	\$ 43,248	\$ 9,273	\$ 52,521	\$ 14,361		\$ 14,361						

δ Includes room and board. ϑ One establishment only.  
 CAUSE OF INCREASE OR REDUCTION: 1 Demand for brick better. 2 Prosperity.  
 NUMBER WEEKS OPERATED: \* 40 full, 12 short.

## TAYLOR COUNTY.

1	Bank and creamery	\$ 2,740		\$ 2,740	\$ 1,000		\$ 1,000	52	52				
2	Brick and tile works	3,000		3,000	3,000		3,000	30	30	12.			
3	Contracting, building, etc	700		700	1,539		1,539					20.00	
4	Coal mining	23,278		23,278	7,060		7,060	30	36	33.			
5	Hotel	6,912		6,912	550		550	52	52				
6	Printing and binding												
	Total	\$ 29,718		\$ 32,670	\$ 13,149	\$ 500	\$ 13,149						

δ Includes board and room. ϑ Separate accounts for males and females not reported.  
 CAUSE OF INCREASE OR REDUCTION: 1 Demand for brick. 2 More building. 3 Cold weather.

STATUTORY INVESTIGATION—PART I—CONTINUED.

UNION COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Electric power and lighting.....	1	1	6	.....	6	7	.....	7
2	Furniture, caskets and undertaking....	1	1	5	.....	5	5	.....	5
3	Hotels and restaurants.....	6	3	21	37	58	18	19	37
4	Laundry, steam.....	1	1	3	3	6	3	3	6
5	Printing and publishing.....	2	2	18	3	21	10	4	14
	Total.....	11	8	53	43	96	43	26	69

VAN BUREN COUNTY.

1	Canning and pickling manufactory.....	1	n	40	70	110	.....	.....	.....
2	Cigar manufactory.....	1	1	31	7	38	17	5	22
3	Coal mining.....	1	2	14	.....	14	20	.....	20
4	Hotel.....	1	1	1	5	6	1	5	6
5	Tool handle manufactory.....	n	1	.....	.....	.....	5	.....	5
6	Woolen goods manufactory.....	1	1	29	38	67	32	48	80
	Total.....	5	6	115	120	235	75	58	133

n Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.

UNION COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females	Total	Males.	Females.	Total	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
1	Electric power and lighting.....	\$ 3,300		\$ 3,300	\$ 3,852		\$ 3,852	52	52				\$ 10.00
2	Furniture, caskets and undertaking .....	2,600		2,600	3,000		3,000	52	52				
3	Hotels and restaurants.....	b 3,328	b 6,150	b 9,478	b 4,380	b 3,034	b 7,414	52	52				\$ 5.00
4	Laundry, steam.....	900	650	1,550	1,220	550	1,770	52	34				
5	Printing and publishing.....	4,587	564	5,151	4,550	924	5,474	52	52				
	Total .....	\$ 11,805	\$ 7,764	\$ 22,569	\$ 17,022	\$ 4,508	\$ 21,530						

b Includes board and room.

CAUSE OF INCREASE OR REDUCTION: / Better grade of help. > Business no good.

VAN BUREN COUNTY.

1	Canning and pickling manufactory.....	\$ 2,500	\$ 1,000	\$ 3,500	.....	.....	.....	10	46	1 6.00	.....	.....	.....
2	Cigar manufactory.....	6,998	410	7,408	\$ 5,110	\$ 793	\$ 5,903	48	48	.....	.....	.....	.....
3	Coal mining.....	4,222	.....	4,222	6,313	.....	6,313	50	48	.....	.....	.....	.....
4	Hotel.....	b 180	b 900	b 1,080	200	b 1,000	b 1,200	52	52	.....	.....	.....	.....
5	Tool handle manufactory.....	.....	.....	1,160	1,160	.....	1,160	20	20	.....	.....	.....	.....
6	Woolen goods manufactory.....	10,098	5,049	15,147	10,918	5,673	16,591	52	52	.....	.....	.....	.....
	Total.....	\$ 24,016	\$ 7,359	\$ 31,375	\$ 23,701	\$ 7,466	\$ 31,167	.....	.....	.....	.....	.....	.....

b I include board and room.

NUMBER WEEKS OPERATED—\* 8 full, 32 short.

CAUSE OF INCREASE OR REDUCTION—/ General prosperity.

STATUTORY INVESTIGATION—PART I—CONTINUED.

WAPELLO COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Bridge and structural iron works .....	1	1	32		32	25		25
2	Candy and cracker manufactory .....	1	1	20	20	40	20	15	35
3	Cigar and tobacco manufactory .....	1	1	6	27	33	10	30	40
4	Cigar manufactory and pipe jobbers .....	1	1	15	6	21	12	8	20
5	Cigar manufactory .....	1	1	9	7	16	11	7	18
6	Cigar manufactory .....	1	1	12	18	30	12	18	30
7	Cigar manufactory .....	1	1	20	10	30	15	35	50
8	Clothing and furnishing goods .....	1	1				12	18	30
9	Coal mining .....	1	1	8	1	9			
10	Dry goods and general merchandise .....	3	2	443	64	507	514	31	545
11	Electric power, light and heat .....	1	1	50		50	65		65
12	Foundry and machine shops .....	1	1	4	4	8	3		3
13	Hardware, retail .....	1	2	40	3	43	40	3	43
14	Hardware, wholesale .....	1	1	6	2	8	6	2	8
15	Hides, tallow and wool .....	1	1	30	37	67	30	39	69
16	Hotels and restaurants .....	5	5	25	25	50	25	62	87
17	Ice, cutting and retailing .....	2	2	23	55	78	25	32	57
18	Laundry, steam .....	1	1	38	15	53	32	16	48
19	Miners tools and supply manufactory .....	1	1	5	5	10	5	5	10
20	Pickle and vinegar manufactory .....	1	1	1,000		1,000	1,100		1,100
21	Pork packing .....	1	1	20	10	30	19	10	29
22	Poultry raising and selling .....	1	1	27	4	31	30	4	34
23	Printing and publishing .....	1	2	30		30	52		52
24	Transfer, livery and express .....	1	2	8	1	9	10	1	11
25	Water supply .....	1	1						
26	Wholesale beer bottlers .....	1	1	14		14	9		9

NINTH BIENNIAL REPORT OF THE [No. 19]

STATUTORY INVESTIGATION—PART II—CONTINUED.

WAPELLO COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Bridge and structural iron works.....	\$ 14,500		\$ 14,500	\$ 12,192		\$ 12,192	52	52				
2	Candy and cracker manufactory.....	8,000	3,500	11,500	7,000	2,250	9,250	45	52	7 6.00			
	Cigar and tobacco manufactory.....	6,937	926	7,863	7,000	9,000	10,000	50	50	2 15.00			
	Cigar manufactory and pipe jobbers.....	5,188	995	6,183	5,300	1,555	6,855	49	52	3 15.00			
3	Cigar manufactory.....	2,900	3,100	6,000	2,800	3,100	5,900	48	50				
	Cigar manufactory.....	12,010	7,010	19,020	8,190	12,750	20,940	52	50			10.00	
	Cigar manufactory.....				9,000	3,000	12,000		50				
	Clothing and furnishing goods.....	4,910	420	5,330				52		4 12.5			
	Coal mining.....	215,587		215,587	254,693		254,693	40	40	5 12.5		6 12.5	
6	Dry goods and general merchandise.....	10,750	30,908	41,658	12,175	11,663	23,838	52	52	7 45.00			
7	Electric power, light and heat.....	23,833		23,833	24,854		24,854	52	52				
8	Foundry and machine shops.....				70,401	1,200	77,600		52				
9	Hardware, retail.....	1,550	937	2,487				52					
10	Hardware, wholesale.....	29,694	1,206	30,900	30,050	1,210	31,260	52	52			8 0 7.00	
11	Hides, tallow and wool.....			4,760	4,341	732	5,073	52		0 10.00			
12	Hotels and restaurants.....	6,444	7,553	13,997	6,109	8,004	14,113	52	52	10 10.00			
13	Ice, cutting and retailing.....	5,200		5,200	7,106		7,106	52	52				
14	Laundry, steam.....	11,360	12,216	23,576	13,183	13,295	26,478	52	52				
15	Miners tools and supply manufactory.....			18,000			19,222	52	52	11 7.00			
16	Pickle and vinegar manufactory.....	2,000	600	2,600	2,300	200	2,500	16	12				
17	Pork packing.....	383,000		383,000	357,000		357,000	52	52	12 7.50			
18	Poultry, raising and selling.....	3,816	1,908	5,724	3,564	623	4,187	52	52				
19	Printing and publishing.....	17,217	1,794	19,011	20,155	1,500	27,655	52	52	13 12.5			
20	Transfer, livery and express.....	17,914		17,914	22,581		22,581	52	52				
21	Water supply.....	6,300	600	6,900	7,990	600	8,590	52	52				
22	Wholesale beer bottlers.....	3,866		3,866	3,669		3,669	52	52	74 50.00			

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STATUTORY INVESTIGATION—PART I—CONTINUED.

WAPELLO COUNTY—CONTINUED.

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[No. 19

1902]

BUREAU OF LABOR STATISTICS.

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Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
23	Wholesale butter and eggs.....	2	2	21	.....	21	17	.....	17
24	Wholesale drugs, paints and glass.....	1	1	22	.....	24	26	.....	28
25	Wholesale groceries.....	2	2	33	.....	35	31	.....	34
	Total.....	44	48	2,017	293	2,310	2,318	312	2,660

# Not reported.

WARREN COUNTY.

1	Coal mining.....	5	4	63	.....	63	43	.....	43
2	Dry goods, general merchandise.....	1	1	3	.....	5	3	.....	3
3	Hotel.....	1	#	3	.....	5	.....	.....	.....
	Total.....	7	5	66	4	73	46	3	49

# Not reported.

WASHINGTON COUNTY.

1	Brick and tile works.....	1	1	18	.....	18	13	.....	13
2	Carriage and buggy manufactory.....	1	1	10	.....	10	15	.....	15
3	Hotel.....	1	#	5	.....	11	16	.....	.....
4	Printing and binding.....	1	1	7	.....	8	7	.....	7
5	Rock quarrying.....	1	1	5	.....	5	6	.....	6
	Total.....	5	4	45	12	57	43	.....	41

# Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED.

WAPELLO COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
23	Wholesale butter and eggs.....	8,473	.....	8,473	8,200	.....	8,200	1152	52	.....	.....	.....	.....
24	Wholesale drugs, paints and glass.....	20,000	800	20,800	16,544	800	17,404	52	52	.....	.....	.....	.....
25	Wholesale groceries.....	20,700	900	21,600	20,462	1,800	22,262	52	52	.....	.....	.....	.....
	Total.....	\$851,185	\$ 75,403	\$901,348	\$960,605	\$ 75,761	\$1,055,580	.....	.....	.....	.....	.....	.....

a Average. b Includes board and room. c Separate accounts for males and females not reported. d One establishment only. NUMBER WEEKS OPERATED: \* 38 full, 12 short. † 45 full, 4 short. ‡ 40 full, 8 short. § 12 full, 40 short. || 25 full, 27 short. ¶ 36 full, 16 short. \*\* 36 full, 16 short. †† 20 full, 32 short. ††† 30 full, 22 short. §§ 40 full, 12 short. ||| 16 full, 36 short. ¶¶ 12 full, 40 short. CAUSE OF INCREASE OR REDUCTION: † Increase of business. ‡ To keep help from striking. § Prosperity. ¶ Encouragement to old employees. § Organization of miners. b Agreement with miners. † Increase of business. ‡ More business, higher wages. § More business. † Increase in two houses, account of good business. †† Demand for labor. †‡ Better business. †‡ Nine hour day adopted at 10 hour rate. †‡ Employees struck.

WARREN COUNTY.

1	Coal mining.....	\$ 12,552	.....	\$ 12,552	\$ 13,083	.....	\$ 13,083	30	36	.....	.....	12.5	.....
2	Dry goods, general merchandise.....	1,600	\$ 700	2,300	1,600	800	2,400	.....	.....	.....	.....	10.00	.....
3	Hotel.....	c	c	885	.....	.....	.....	52	.....	.....	.....	.....	.....
	Total.....	\$ 14,152	\$ 700	\$ 15,737	\$ 14,683	\$ 800	\$ 15,483	.....	.....	.....	.....	.....	.....

b Includes board and room. c Separate accounts for males and females, not reported.

WASHINGTON COUNTY.

1	Brick and tile works.....	\$ 4,380	.....	\$ 4,380	\$ 3,600	.....	\$ 3,600	26	30	.....	.....	.....	.....
2	Carriage and buggy manufactory.....	4,530	.....	4,530	5,882	.....	5,882	152	52	5.00	.....	10.00	.....
3	Hotel.....	b 900	b 1,806	b 2,806	.....	.....	.....	52	.....	.....	.....	.....	.....
4	Printing and binding.....	3,120	.....	3,120	1,600	.....	1,600	52	30	.....	.....	.....	.....
5	Rock quarrying.....	600	.....	600	2,500	.....	2,500	20	36	.....	.....	.....	.....
	Total.....	\$ 13,590	\$ 1,806	\$ 15,486	\$ 13,582	.....	\$ 13,582	.....	.....	.....	.....	.....	.....

b Includes board and room. NUMBER WEEKS OPERATED: †† 40 full, 12 short. CAUSE OF INCREASE OR REDUCTION: † Prosperity.

## STATUTORY INVESTIGATION—PART I—CONTINUED.

## WAYNE COUNTY

Marginal number,	INDUSTRY OR KIND OF BUSINESS,	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
				1899	1900	Males.	Females.	Total.	Males.
1	Brick and tile works .....	1	1	12	—	12	7	—	7
2	Coal mining .....	2	2	230	—	230	132	—	132
	Total .....	3	3	242	—	242	139	—	139

## WEBSTER COUNTY.

1	Agricultural implement agency	1	1	11	1	12	15				15
2	Banking	1	1	9		9	10				10
3	Brick and tile works	4	4	98		99	99		1		100
4	Candy and cracker manufactory	1	1	3	3	6	5		4		9
5	Coal mining	7	8	359		359	167				167
6	Contracting for building	1	1	35		35					
7	Dry goods and general merchandise	3	11	16	15	25					
8	Electric power and light	1	1	11		11	10				10
9	Foundry and machine shop	1	1	8		8	10				10
10	Hardware retail	1	1	17		17	16				16
11	Hotel	1	1	6	13	19	7		14		21
12	Merchant tailoring	1	1	17	3	20	17		3		20
13	Milling meal and cereals	1	1	35		35					
14	Paint manufacturers	1	1	18	2	20					
15	Plaster manufactory	3	1	160		160	100				100
16	Printing and binding	3	2	21	7	28	19		4		23
17	Sash door and blind manufactory	1	1	17		17	18				18
18	Shoe manufactory	1	1	60	65	125	85		50		135
19	Stoneware manufactory	1	1	21		21	20				20

## STATUTORY INVESTIGATION—PART II—CONTINUED.

## WAYNE COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Brick and tile works.....	\$ 3,000	.....	\$ 3,000	\$ 1,500	.....	\$ 1,500	.....	20	.....	.....	.....	.....
2	Coal mining.....	79,370	.....	79,370	55,205	.....	55,205	50	30	12.5	.....	12.5	.....
	Total.....	\$ 82,370	.....	\$ 82,370	\$ 56,705	.....	\$ 56,705						

CAUSE OF INCREASE OR REDUCTION 1 Uniform scale made by miners and operators. 2 Forced to by miners union.

## WEBSTER COUNTY.

1	Agricultural implement agency	\$ 6,000	\$ 360	\$ 6,360	\$ 11,000		\$ 11,000	52	52				
2	Banking	8,300		8,300	10,000		10,000	52	52				
3	Brick and tile works	32,097	270	32,097	41,020	300	41,320	40	40	10.00	0	10.00	
4	Candy and cracker manufactory	1,300	600	1,900	3,250	760	4,016	52	52	20.00			
5	Coal mining	169,952		169,952	76,771		76,771	44	40	10.00			
6	Contracting for buildings	12,000		12,000						25.00			
7	Dry goods and general merchandise	5,800	3,500	9,300				52	52				
8	Electric power and light	6,660		6,660	6,720		6,720	52	52				
9	Foundry and machine shop	4,500		4,500	1,500		1,500	52	52				
10	Hardware retail	10,210		10,210	9,892		9,892	52	52	10.00			
11	Hotel	6,951	478	7,429	8,951	478	9,429	52	52	7.10			
12	Merchant tailoring	19,372	688	20,060				52	52	5.00			
13	Milling meal and cereals	6,282	400	6,682	6,869	350	7,219	50	50				
14	Paint manufacturers	72,729		72,729	50,897		50,897	52	52	15.00			
15	Plaster manufactory	11,280	1,582	12,862	12,993	1,184	14,177	52	52				
16	Printing and binding	9,264		9,264	10,500		10,500	52	52				
17	Sash door and blind manufactory							52	52				
18	Shoe manufactory							52	52				

STATUTORY INVESTIGATION—PART I—CONTINUED.

WEBSTER COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
20	Transfer and expressing .....	n	1						8
21	Wholesale fruit and produce .....	2	1	12	3	15	7	1	8
22	Wholesale groceries .....	1	1	23	2	25	14	3	17
	Total .....	37	30	946	120	1,066	657	94	751

n Not reported.

WINNESHEIK COUNTY.

1	Clothing retail .....	1	1	7		7			7
2	Dry goods and general merchandise .....	3	2	18		20			19
3	Electric light and power .....	n	1						4
4	Hotel .....	2	2		12	10	5		15
5	Printing and publishing .....	1	2	27	1	28	41	0	47
6	Sash, door, and blind manufactory .....	1	1	23		23	21	1	22
7	Wagon and sleigh manufactory .....	1	1	14		14	15		15
8	Wagon and general repairing .....	1	n	15		15			
	Total .....	10	10	108	33	141	101	31	132

n Not reported.

STATUTORY INVESTIGATION—PART II—CONTINUED

WEBSTER COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	Increase (per cent.)	Reduction (per cent.)	Increase (per cent.)	Reduction (per cent.)
20	Transfer and expressing .....						1,173		20				
21	Wholesale fruit and produce .....	8,002	1,266	9,268	6,180	936	7,116	52	52				
22	Wholesale groceries .....	21,390	1,160	22,550	11,543	1,620	13,163	52	52	10.00			
	Total .....	\$421,419	\$10,301	\$431,720	\$278,060	\$5,628	\$283,688						

δ Includes room and board. ε Separate accounts for males and females not reported. φ One establishment only.  
 NUMBER WEEKS OPERATED: \* 36 full, 8 short. † 33 full, 10 short. ‡ 48 full, 4 short. § 48 full, 4 short. || 35 full, 15 short. ¶ 48 full, 4 short.  
 CAUSE OF INCREASE OR REDUCTION: 1 Better times. 2 Increased cost of living. 3 Miners struck for it. 4 Agreement with miners union. 5  
 Demanded by labor. 6 better times. 7 Good business. 8 Competition. 9 Men struck for it. 10 Improved business.

WINNESHEIK COUNTY.

1	Clothing retail .....	\$ 4,500		\$ 4,500	\$ 4,800		\$ 4,800		52				
2	Dry goods and general merchandise .....	5,732	\$ 7,650	13,381	5,361	\$ 3,481	8,842	52	52				
3	Hotel .....	δ 600	δ 1,453	δ 2,053	δ 780	δ 1,240	δ 2,020	52	52	10.00			
4	Printing and publishing .....	c	c	c 14,664	25,704	1,500	27,204	52	52				
5	Sash, door and blind manufactory .....	10,219		10,219	c	c	10,500	50	52	10.00			
6	Wagon and sleigh manufactory .....	5,449		5,449	6,460		6,460	52	52				
7	Wagon and general repairing .....	5,439		5,439				52	52				
8	Electric light and power .....				2,500		2,500		52				
	Total .....	\$ 31,930	\$ 9,112	\$ 41,042	\$ 45,605	\$ 6,221	\$ 51,826						

δ Includes board and room. ε Separate accounts for males and females not reported.  
 NUMBER WEEKS OPERATED: \* 30 full, 20 short. † 42 full, 10 short. ‡ 16 full, 36 short. § 40 full, 12 short.  
 CAUSE OF INCREASE OR REDUCTION: 1 Hard to keep help. 2 Scarcity of help.

STATUTORY INVESTIGATION—PART I—CONTINUED.

WOODBURY COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Agricultural implement agencies.....	1	2	10	.....	10	13	.....	13
2	Agricultural implement manufactory.....	1	1	10	.....	10	17	.....	17
3	Bakery, bread, cake and pies.....	4	3	27	4	31	24	.....	29
4	Bakery, crackers, biscuits and candy.....	1	n	48	60	114	.....	.....	.....
5	Banking, loans and investments.....	1	1	8	1	9	9	1	10
6	Brick and tile works.....	4	3	162	.....	162	125	.....	125
7	Bridge work and boiler manufactory.....	1	1	11	.....	11	14	.....	14
8	Candy manufactory.....	1	n	20	10	30	.....	.....	.....
9	Cigar dealers and manufactory.....	3	5	46	.....	46	58	.....	58
10	Clothing, retail.....	4	3	37	3	40	26	1	27
11	Clothing, merchant tailoring.....	3	2	38	.....	40	21	.....	21
12	Coal, retail.....	1	1	8	2	10	13	2	15
13	Contractor and builder.....	1	1	20	.....	20	30	.....	30
14	Cooperage.....	n	1	1	.....	1	6	.....	6
15	Drugs, retail.....	1	1	7	.....	7	7	.....	7
16	Drugs, wholesale.....	2	1	42	6	48	32	.....	32
17	Dry goods and general merchandise, retail.....	7	5	189	265	454	207	253	460
18	Dry goods, wholesale.....	1	1	17	2	19	18	1	19
19	Electrical supply manufactory.....	1	n	25	.....	25	.....	.....	.....
20	Electric power, light and gas.....	1	n	82	1	83	60	.....	60
21	Florist, cut flowers, etc.....	1	n	8	1	9	.....	.....	.....
22	Furniture, retail.....	1	n	21	4	25	.....	.....	.....
23	Groceries, retail.....	2	3	16	2	18	15	2	17
24	Groceries, wholesale.....	4	4	231	28	262	233	29	262
25	Hardware, retail.....	2	1	18	1	19	7	.....	7
26	Hardware, wholesale and manufactory.....	3	3	117	4	121	78	10	88
27	Hotels and restaurants.....	10	9	155	81	236	148	73	221
28	Hides, tallow and wool.....	2	1	15	1	16	10	.....	10
29	Ice dealers and manufactory.....	1	2	10	.....	10	79	.....	79

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STATUTORY INVESTIGATION—PART II—CONTINUED.

WOODBURY COUNTY.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduction (per cent.)	In-crease (per cent.)	Reduction (per cent.)
1	Agricultural implement agencies.....	6,798	.....	6,798	9,107	.....	9,107	52	52	.....	.....	.....	.....
2	Agricultural implement manufactory.....	8,957	.....	8,957	9,245	.....	9,245	52	46	15.00	.....	.....	.....
3	Bakery, bread, cake and pies.....	14,753	1,454	16,207	10,954	1,742	12,696	52	52	02.10.00	.....	.....	.....
4	Bakery, crackers, biscuits and candy.....	20,287	14,660	35,253	.....	.....	.....	52	52	3.10.00	.....	.....	.....
5	Banking, loans and investments.....	7,190	650	7,840	9,360	600	9,960	52	45	10.00	.....	.....	.....
6	Brick and tile works.....	51,935	.....	51,935	50,459	.....	50,459	* 52	52	5.00	.....	.....	.....
7	Bridge work and boiler manufactory.....	6,804	.....	6,804	8,400	.....	8,400	52	52	.....	.....	5.10.00	.....
8	Candy manufactory.....	c	c	15,042	.....	.....	.....	52	52	.....	.....	.....	.....
9	Cigar dealers and manufactory.....	37,652	.....	37,652	43,094	.....	43,094	52	52	.....	.....	.....	.....
10	Clothing, retail.....	24,212	1,331	25,543	15,324	624	15,948	52	52	.....	.....	.....	.....
11	Clothing, merchant tailoring.....	22,818	420	23,238	15,308	.....	15,308	52	50	6.12.5	.....	.....	.....
12	Coal, retail.....	5,000	500	5,500	7,400	720	8,120	52	52	.....	.....	.....	.....
13	Contractor and builder.....	13,000	.....	13,000	14,500	.....	14,500	52	52	7.5.00	.....	.....	.....
14	Cooperage.....	.....	.....	.....	2,500	.....	2,500	52	52	.....	.....	.....	.....
15	Drugs, retail.....	3,420	.....	3,420	3,700	.....	3,700	52	52	8.5.00	.....	.....	.....
16	Drugs, wholesale.....	c	c	29,430	10,683	1,757	21,440	52	52	0.7.00	.....	.....	.....
17	Dry goods and general merchandise, retail.....	113,418	67,005	180,421	80,594	71,975	152,569	52	52	01033.00	.....	.....	.....
18	Dry goods, wholesale.....	14,000	600	14,600	13,500	400	13,900	52	52	.....	.....	.....	.....
19	Electrical supply manufactory.....	13,500	.....	13,500	.....	.....	.....	52	52	.....	.....	.....	.....
20	Electric power, light and gas.....	24,195	720	24,915	36,000	.....	36,000	52	52	.....	.....	.....	.....
21	Florist, cut flowers, etc.....	2,700	150	2,850	.....	.....	.....	52	52	11.5.00	.....	.....	.....
22	Furniture, retail.....	12,000	1,500	13,500	.....	.....	.....	52	52	10.00	.....	.....	.....
23	Groceries, retail.....	8,985	800	9,785	9,950	950	10,900	52	52	.....	.....	01215.00	.....
24	Groceries, wholesale.....	c	c	212,093	210,591	10,501	227,092	52	52	13.5.00	.....	.....	.....
25	Hardware, retail.....	9,300	140	9,440	5,000	.....	5,000	52	52	01410.00	.....	.....	.....
26	Hardware, wholesale and manufactory.....	75,693	2,222	77,915	56,478	4,944	61,422	52	52	01510.00	.....	.....	.....
27	Hotels and restaurants.....	41,847	15,926	57,773	41,570	16,551	58,121	52	52	10.7.00	.....	10.2.00	.....
28	Hides, tallow and wool.....	10,500	500	11,000	4,600	.....	4,600	50	50	.....	.....	.....	.....
29	Ice dealers and manufactory.....	4,000	.....	4,000	11,845	.....	11,845	52	40	.....	.....	.....	.....

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STATUTORY INVESTIGATION—PART I—CONTINUED.

WOODBURY COUNTY—CONTINUED.

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NINTH BIENNIAL REPORT OF THE

[No. 19

1902]

BUREAU OF LABOR STATISTICS.

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Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.	AVERAGE NUMBER OF EMPLOYEES DURING YEAR.							
			1899.			1900.				
			1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
30	Insurance, life.....	1	n	17	5	32	9	10	19	
31	Jewelry and silversmith.....	1	1	8	4	12	5	10	15	
32	Laundry, steam.....	n	1	12	12	24	12	12	24	
33	Live stock commission.....	2	4	12	12	24	12	12	24	
34	Livery.....	1	1	6	6	12	6	6	12	
35	Lumber, wholesale.....	1	1	12	12	24	12	12	24	
36	Machine shops and foundries.....	3	2	40	1	41	22	1	23	
37	Milling, flour and cereals.....	5	3	109	11	120	65	1	66	
38	Mineral water and soft drinks.....	1	1	7	7	7	7	7	7	
39	Oils, lubricating and illuminating.....	1	1	10	1	11	14	1	15	
40	Oil, linseed.....	1	1	35	35	35	54	90	54	
41	Overall and shirt manufactory.....	1	1	6	85	91	90	40	99	
42	Packers and cold storage.....	2	3	862	31	833	990	40	1,030	
43	Painting, decorating and wall paper.....	1	1	29	1	30	30	1	31	
44	Paper box manufactory.....	1	n	4	16	20	42	4	46	
45	Plumbing and steam fitting supplies.....	4	5	23	4	27	380	18	398	
46	Printing, binding and publishing.....	5	6	360	20	386	43	6	49	
47	Produce, commission, wholesale.....	3	3	59	4	63	38	1	58	
48	Saddlery and harness manufactory.....	3	2	37	1	38	58	1	59	
49	Sash door and bank fixture manufactory.....	2	2	47	40	80	11	7	18	
50	Seeds and shrubs.....	1	n	18	7	25	55	35	90	
51	Soap manufactory.....	1	1	62	41	103	75	3	78	
52	Starch manufactory.....	1	1	85	1	86	12	3	15	
53	Stock and feed yards.....	1	1	199	1	200	13	12	25	
54	Street car transportation.....	1	n	13	3	16	12	12	24	
55	Vinegar and cider manufactory.....	1	1	13	3	16	12	12	24	
56	Water Supply.....	1	1	4	3	7	7	7	7	
57	Wholesale crockery.....	1	n	4	3	7	7	7	7	

STATUTORY INVESTIGATION—PART II—CONTINUED.

WOODBURY COUNTY—CONTINUED.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
30	Insurance, life.....	c	c	c 19,760	7,800	1,792	9,592	52	52	1720.00			
31	Jewelry and silversmith.....	7,500		7,500	7,800	1,792	9,592	52	52				
32	Laundry, steam.....				1,792	1,792	3,584	52	52				
33	Live stock commission.....	15,251		15,251	74,360	600	74,960	52	52			0.812.5	
34	Livery.....	5,280		5,280	5,300		5,300	52	52				
35	Lumber, wholesale.....	4,750		4,750	4,380		4,380	52	52				
36	Machine shops and foundries.....	18,207	480	18,727	15,250	480	15,730	52	52	1010.00			
37	Milling, flour and cereals.....	50,103	1,500	51,603	35,270	600	35,870	52	52	20.5.00			
38	Mineral water and soft drinks.....	3,632		3,632	3,512		3,512	52	52				
39	Oils, lubricating and illuminating.....	8,900	500	9,400	12,500	600	13,100	52	52			10.00	
40	Oil, linseed.....	15,511		15,511	24,421		24,421	52	52	21.6.00			
41	Overall and shirt manufactory.....	4,117	16,595	20,712	3,557	12,557	16,107	52	52	22.6.00			
42	Packers and cold storage.....	471,645	10,607	482,252	578,110	13,503	591,613	52	52	2716.00			
43	Painting, decorating and wall paper.....	21,000	250	21,250	15,000	390	15,390	52	52	45.15.00			
44	Paper box manufactory.....	c	c	c 3,000	21,713	1,608	23,321	52	52				
45	Plumbing and steam fitting supplies.....	13,683	836	14,519	21,713	1,608	23,321	52	52	15.12.5		0.11.00	
46	Printing, binding and publishing.....	188,743	7,351	196,094	101,782	6,948	108,730	52	52	20.10.00			
47	Produce commission, wholesale.....	37,649	1,277	38,926	31,342	2,665	34,007	52	52	60.00			
48	Saddlery and harness manufactory.....	18,110	250	18,360	11,837	365	12,202	52	52	27.20.00			
49	Sash, door and bank fixtures manufactory.....	29,200		29,200	26,480		26,480	52	52	10.00			
50	Seeds and shrubs.....	c	c	c 7,447	5,345	1,097	6,442	52	52	28.10.00			
51	Soap manufactory.....	5,915	1,494	7,409	5,345	1,097	6,442	52	52				
52	Starch manufactory.....	11,354	1,749	13,103	24,797	5,417	30,214	52	52				
53	Stock and feed yards.....	54,904		54,904	53,262		53,262	52	52				
54	Street car transportation.....	99,835	360	100,195	4,000	400	4,400	52	52	12.00			
55	Vinegar and cider manufactory.....	11,188		11,188	10,680		10,680	52	52				
56	Water supply.....	1,644		1,644	2,724		2,724	52	52	20.10.00			
57	Wholesale crockery.....	1,644	1,080	2,724				52	52				

*n.* Not reported.

WORTH COUNTY.

n. Not reported

WRIGHT COUNTY.

n. Not reported.

## WOODBURY COUNTY—CONTINUED

1 Includes room and board. 2 Separate accounts for males and females, not reported. 3 One establishment only.  
 4 Cause of INCREASE OR REDUCTION. 5 Demand for labor. 6 Increased business. 7 Demand for brick. 8 Our desire to act square. 9 Men demanded it.  
 10 More work. 11 Efficiency. 12 Prosperity. 13 Efficiency of some clerks. 14 Business better. 15 Good service. 16 Better times. 17 Better profits.  
 18 Better business. 19 Hard to keep help. 20 Efficiency of help. 21 Better business. 22 More work demanded. 23 Better trade. 24 More business.  
 25 Better times. 26 Demand for labor. 27 Organization of labor. 28 Plumbers struck for eight hour day with nine hours pay. 29 Shorter work day. 30 Men  
 organized. 31 More profit. 32 Increased business.

NUMBER WEEKS OPERATED. \* 10 full, 10 short. † 45 full, 6 short. ‡ 40 full, 12 short. § 30 full, 10 short. || 40 full, 12 short. ¶ 16 full, 36 short. \*\* 40 full,  
 12 short. †† 40 full 12 short. ††† 40 full, 12 short. †††† 16 full, 30 short. ††††† 40 full, 6 short. †††††† 40 full, 40 short. ††††††† 40 full, 12 short. †††††††† 30  
 full, 22 short. ††††††††† 16 full, 36 short. †††††††††† 26 full 24 short.

WORTH COUNTY.

CAUSE OF INCREASE OR REDUCTION: 1 Some individuals raised

## WRIGHT COUNTY.

*b* Includes board and room.

# STATUTORY INVESTIGATION—PART I—CONTINUED.

## MISCELLANEOUS.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	Number establishments reporting.		AVERAGE NUMBER OF EMPLOYEES DURING YEAR.					
				1899.			1900.		
		1899	1900	Males.	Females.	Total.	Males.	Females.	Total.
1	Grain elevators (companies) .....	2	2	71	3	74	47	2	49
2	Messenger service.....	1	1	100	8	103	95	1	96
3	Telegraph service.....	2	2	161	8	171	170	20	190
4	Telephone service.....	1	1	148	25	373	234	258	492
5	Refined oils .....	1	1	39	.....	39	39	1	40
6	Lumber company .....	π	1	.....	.....	.....	14	.....	14
	Total .....	7	8	521	239	760	605	282	887

# STATUTORY INVESTIGATION—PART II—CONTINUED.

## MISCELLANEOUS.

Marginal number.	INDUSTRY OR KIND OF BUSINESS.	TOTAL WAGES PAID DURING YEAR.						Average number of weeks in operation.		INCREASE OR REDUCTION OF DAILY WAGES DURING—			
		1899.			1900.					1899.		1900.	
		Males.	Females.	Total.	Males.	Females.	Total.	1899.	1900.	In-crease (per cent.)	Reduc-tion (per cent.)	In-crease (per cent.)	Reduc-tion (per cent.)
1	Grain elevators (companies) .....	\$ 37,500	\$ 2,100	\$ 39,600	\$ 29,500	\$ 1,200	\$ 30,700	* 52	52				
2	Messenger service.....	c 16,245	c 16,245	16,851	120	16,971	52	52	1	5.00			
3	Telegraph service .....	51,481	3,765	55,246	82,091	10,787	92,878	52	52	2	2		
4	Telephone service .....	81,681	70,584	151,665	141,405	61,920	203,325	52	52	4			
5	Refined oils .....	35,302		35,302	37,777	390	38,077	52	52			5	10.00
6	Lumber company.....				9,402		9,400	52	52			6	10.00
	Total.....	\$ 205,364	\$ 76,449	\$ 298,058	\$ 317,084	\$ 74,327	\$ 361,410						

CAUSE OF INCREASE OR DECREASE: \* 34 full, 18 short. c Separate accounts for male and female not reported. π Not reported.

NUMBER WEEKS OPERATED: 1 More competent help. 2 Slight increase. 2 More business. 4 Special linemen received increase. 5 Good times. 6 Merit of employees.

The above table comprises grain elevators, telegraph, telephone, messenger service, oil companies and lumber companies who did not employ 5 persons in each locality where their business was conducted but whose aggregate employees throughout the state exceeded five and comprised the numbers given in the table.



desired industries, that they were obliged to repudiate their obligations. The hard times of 1858 to 1860 followed, which, while beneficial in checking the speculative spirit of the period, caused some capital to migrate westward, yet not in sufficient quantities to overcome the progress caused by the boom of 1855-1857. For these reasons, coupled with the stimulus of war demand and war prices, we have the notable rates of increase shown for the decades from 1850 to 1870. The percentages for the period 1860 to 1870 are misleading, in that the values given for 1870 are stated in a currency which was at a great discount in gold. If the plan adopted by the census of 1880 be followed, and the amounts given for 1870 be discounted one-fifth, we have the following results as to the principal items. Per cent of increase:

	1890-1900	1880-1890	1870-1880	1860-1870	1850-1860
Capital .....	32.5	128.1	89.5	147.4	460.5
Cost of material.....	27.6	62.8	119.9	157.1	251.1
Value of product.....	31.6	76.0	90.8	166.4	293.4

From these revised figures it appears that the per cent of increase has diminished, as is customary for all comparisons with a cumulative base, and that the great decline in the rate of increase from 1870 to 1880, followed by a marked rise from 1880 to 1890, is due more to a depreciated currency than economic conditions. The single exception to this statement is the noticeable and significant increase of invested capital—128.1 per cent, and the slight advance in the number of establishments—7.5 per cent. This was in part a step toward the later forms of capitalistic production, the average capital per establishment in 1880 being \$4,910, and in 1890, \$10,418 and partially due to the political evils of the period.

Good transportation facilities, an abundance of coal well distributed, and a fertility of soil which has given it rank as one of the leading agricultural states of the Union, has rendered possible the present gratifying status of manufactures in Iowa. The same reasons account in part for the even distribution of these interests and their diversified character. No certain portion of the state or particular city can lay claim to a dominant interest in manufactures as a whole, or a comparative monopoly of any one of its leading industries.

The southern and eastern portions were settled first, and still have the denser population, yet the northern and western have produced the banner manufacturing city, if value of product be considered. Sioux City, however, only produced 9.4 per cent. of the product of the State. Still further no leading industry is particularly prominent. Slaughtering, which ranks first in value of product, represents but 15.6 per cent. of the total product of the state, while the industry next in order, cheese, butter and condensed milk, furnishes 9.6 per cent.

During this period of development a marked change in the character of the industries has taken place. In the early period of settlement the principal products manufactured were lumber, flour, leather and woolen goods, all of which have since declined with the exception of flour, while those industries necessary to the full realization of the agricultural possibilities of the state, slaughtering, and butter and cheese, have taken their place.

<sup>1</sup>Historical Reminiscences of the City of Des Moines, Turrell, 1857.  
Northern Iowa, by a Pioneer, 1858.  
A Brief Description of Fort Dodge, 1858.

As early as 1840 the woolen products of Muscatine county were valued at \$800, and Cedar county produced hat and caps valued at \$19,900. It was evident that the people expected the woolen industry to take the rank in Iowa it lead in the east. The prospective circulars were careful to state the exact status of the business and seldom failed to point out the waste to be incurred in the shipping of the raw wool to the eastern manufacturies. Under this constant stimulus the industry reached its maximum proportions in 1870, when sixty-eight establishments report a product valued at \$1,561,341, or \$1,249,073 if allowance be made for the appreciated currency. From this date forward its product has gradually reduced in value until the present figure, \$296,500 has been reached. It is clear that the rearing of cattle and production of dairy products has been more attractive to the farmers of the state, for every decline of the sheep industry has been marked by a corresponding rise in the value of slaughtered and dairy products.

The decline in the lumber and timber industry has been less marked than in the woolen, but no less certain and significant if quality and quantity of product be considered. In the earlier decades, and perhaps to 1800, the lumber companies operated along the banks of the rivers, cutting only the larger trees, and culling from a more extended area the finer woods. As a result the present lumber supply is gained largely from trees of so small diameter as to have been formerly refused; the walnut and oak is almost entirely wanting, while logs of all kinds must be conveyed considerable distances to ship or raft. In short, while a decline in the value of the product from \$23,425,576 in 1890 to \$8,677,058 has been almost phenomenal, the real decline has been far greater due to the increased cost of production, as well as to the advance in price resulting from an increased demand.

An industry of recent origin and peculiar to Iowa is the manufacture of pearl buttons from the shells of native fresh water mussel. The leading center of the industry is Muscatine, which, in 1898, had five completely organized plants and twenty-eight saw works, yet almost every town on the Mississippi from Sabula to Fort Madison, a distance of 167 miles, is provided with plants, Davenport, Clinton and Keithsburg being sort of secondary centers.\* The industry has also been pursued at Cedar Rapids, Vinton and Charles City on the Cedar river; Coralville on the Iowa river, and West Liberty, What Cheer and Oskaloosa; which latter place secured their raw material from other sources.\*

Mr. B. T. Boepple, a native of Hamburg, Germany, where he learned the trade, is given the credit for introducing the business in 1891. Stimulated by the high tariff placed on imported buttons by the tariff bill of 1890, and assured of the excellence of the mussels in the Mississippi and rivers of Iowa, he located his factory at Muscatine. The success of the industry was at once assured. By 1898 no less than 1,000 persons were engaged in mussel fishery between Fort Madison and Sabula, while the number of persons employed in the manufacture of buttons is placed at 1,434, of which 1,042 were males and 392 females. This rapid growth seems to have been abnormal, as several firms were obliged to give up the business, and a general lowering of the price was noted in 1899. The fear that the mussel beds will soon be exhausted seems well founded. The removal of 4,602 tons of shells in 1897,

\* Report of the U. S. Fish Commission, 1898.  
Report of Labor Commissioner, Iowa, 1897-98.

and 3,641 in the year following shows the extent of the exploitation. The beds opposite Muscatine and New Boston are already worked out. No attention is paid to the spawning season of the principal species; multitudes of small mussels that cannot be utilized are left upon the banks or ice to die, while even if proper care were taken it requires from ten to eighteen years to grow a serviceable shell. To date, however, the industry is in a fairly prosperous condition, and Mississippi river buttons are sold in every state in the Union, as also Canada and England. Only a portion of the product sold, however, is finished in Iowa or the adjoining section of Illinois. Several of the larger button factories of the east have "saw works" located here which cut out the rough blanks and ship them east for final manufacture. In a few cases the rough shells have been shipped. A buyer at LeClaire in the winter of 1898-99 had a contract of 1,000 tons to be shipped to New York, this form of the business is however exceptional.

TABLE NO. 4.

Based on value of product the order of importance of the cities of the state is as follows: Sioux City, Cedar Rapids, Dubuque, Davenport, Ottumwa and Clinton. If invested capital is made the criterion, the order is Davenport, Dubuque, Des Moines, Cedar Rapids, Marshalltown and Sioux City. One of the striking facts in the development of the state is the rapid progress of the latter city. In 1880, it was a place of minor importance, unknown as a manufacturing center, a decade later, the value of its manufactured products was \$14,119,843, which on this base easily gave it first rank, exceeding its nearest competitor, Davenport, by almost three millions of dollars. Two facts are largely responsible for the position it has obtained. Its rapid increase in population has given carpentry an undue prominence, and the slaughtering industry is one in which a small investment of capital produces a product of higher value than possible in most other lines. Yet its position as the principal city of the rapidly developing northwest is sufficiently advantageous to keep it in the front rank among the cities of the state. The influence of a dominant industry is further seen in Davenport, which ranks first in the amount of capital invested. Here with \$1,914,483 invested in its dominant industry, lumber, the value of its product was but \$1,729,607 in 1890; while Sioux City in the same year with an investment of \$647,150, in the slaughtering industry, produced a product valued at \$7,589,228. Considerations, such as these, show the folly of attributing to any city first rank as a manufacturing center. The same reason accounts for the comparatively small output of several of the important cities of the state. The location of the state is such that it is a highway for the transfer of commodities between the east and the west, while extensive transportation facilities are necessary to place its own products on the market. Due to these conditions, we find extensive car construction and repair shops in Burlington, Davenport, Belle Plaine, Boone, Waterloo, Oelwein and other cities, an industry so prominent that it employs an average of 5,497 wage earners throughout the year, or 2,104 more than any other industry, and paid in the year 1900, \$2,948,948 in wages, \$1,525,816 more than any other manufacturing enterprise, yet a comparatively small product is produced.

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## PART II.

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# Report of Labor Commissioner of Iowa.

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## THE VALUE AND INFLUENCE OF LABOR STATISTICS.\*

BY CARROLL D. WRIGHT.

There are now in the United States, besides the Federal Department of Labor, thirty-one state bureaus or departments devoted to the collection of statistics of labor by means of original investigations. Besides these, the Federal Census Office, the Bureaus of Statistics of the Federal Treasury and Agricultural Departments, the Bureau of Foreign Commerce of the Department of State, the departments and boards of agriculture of the various states, and various other offices may be considered as publishing labor statistics in some degree. But I speak here of the value and influence of those offices first mentioned—those devoted specifically and technically to the investigation of social and industrial conditions and to the publication of distinctive labor statistics. These offices had their foundation in the establishment of the Massachusetts bureau in 1869. Gradually other states created bureaus of statistics of labor, and in 1884, the United States government added its own office to those already in existence. All the offices, together, have published over 400 octavo volumes, covering a great variety of topics and the results of investigations relative to almost every condition and environment of the working man.

The character and quality of the work of the different offices varies in some degree, due to a considerable extent to the short tenure of the heads of the different bureaus. Where the governor of a state has allowed himself to ignore politics and insist upon scientific work, the bureaus have achieved the greatest success; but as a rule a governor feels that the office of the chief of the bureau of statistics of labor of his state must be filled by somebody from his party, without reference to the skill, the experience, or the integrity of the incumbent under the previous administration. Yet I am glad to say, as the result of pretty

careful study of the reports of all the officials who have done duty in this country during the past thirty-two years, that no matter for what reason they were appointed, no matter how inexperienced in the work of investigation and of compilation and presentation of statistical matter, no matter from what party they came, and whether in sympathy with capital or with labor, and even if holding fairly radical socialistic views—the men have, almost without exception, at once comprehended the sacredness of the duty assigned them, and have served the public faithfully and honestly, being content to collect and publish facts without regard to their individual bias or their individual political sentiments. As soon as a man realizes that he is giving to the world a fact, he feels the necessity of accuracy, and that to distort the information collected would be to commit a crime worse than any ordinary lying, because it would mislead legislators and others and fix a falsehood in the history of the state. Many men, too, have come into the work of the statistical bureaus feeling that they could use them as the means of propagandism in some way, and in a few cases this has been attempted, but almost always with failure, because bureaus are looked to to furnish information relative to actual conditions surrounding industry.

That what I have said is true is illustrated by other countries following the example of the American states. Great Britain, France, Belgium, Austria, New Zealand, New South Wales, Canada, and the Province of Ontario, Canada have established bureaus following in their duties very closely those assigned by law to the American bureaus and departments. In Germany, Italy, and Sweden labor statistics of the same character are published by general statistical bureaus. A distinguished member of the House of Commons of England told me a few years ago that, whenever he wished to lay any facts relative to workingmen before his colleagues, he carried into the House some American report on the statistics of labor. In the Chamber of Deputies of France, in the German Reichstag, and in the legislative bodies of other countries the American labor reports have been freely used in economic discussions. Had not the work of the American offices been highly regarded, these things would not have occurred. It is true, of course, that the sentiment of the times is largely conducive to the successful operation of bureaus of statistics of labor. The general attention paid to social and industrial conditions and all conditions affecting the environment of men has fitted the soil for statistical seed. The altruistic spirit of this

\*Revised from an article in the *Engineering Magazine* of November, 1893, with the consent of the publishers.

age calls for accurate information, that it may know how best to expend its efforts and not dissipate its energy. The question is constantly being asked: "What do social classes owe to each other?" and that any one class may not be deceived in the nature or magnitude of its debts, it must turn to statistics to ascertain the true situation.

The question is often asked, and by very intelligent people. "Of what good is a bureau of statistics of labor?" Does the workingman secure any direct benefits from its existence? This question cannot be answered very specifically, any more than could one asking for the direct benefits of the public school. It would be a difficult process to show how a dollar more is made to enter the pockets of the working people through the existence of the public schools, or any other educational institution, and yet all men will admit that the sum of benefits is largely increased by the existence of schools. Personally, I have always contended that the bureau of statistics of labor, wherever it exists, is simply a part of the educational machinery established by the community through which it is enabled to know more of itself. "Know thyself" is an injunction which should be applied to communities as well as to individuals, and it is only through rigid, impartial, and fearless investigations that any community can know itself in many directions. Notwithstanding this general view of the educational influence of the offices I am considering, very many instances of their specific influence can be cited. These instances I must, for purposes of convenience, draw largely from those which have come under my own observation or within my knowledge, for to enter upon a research of all the influences which have come in direct ways from the services of all the offices in existence in this country would take me too far afield.

One of the first results that I remember, as being traceable to a published report, related to the tenement-house system of the city of Boston. In the second, third, and fourth reports of the Massachusetts Bureau of Statistics of Labor there were many facts showing the condition of the tenement-houses in the city named. The public was fully apprised of the misery that existed in them, resulting from bad conditions, ill construction, and all that tended to make tenement-house life an evil. Public attention was aroused through these publications, better laws were framed and passed, and a public sentiment created which crystallized in a reform movement having for its purpose the improvement of tenement-houses in Boston. Some of the worst

places were improved, and the impetus then given is still active, as is shown by the existence of societies in that city and their influence in securing from the legislature an appropriation to enable the bureau in that state to make a very exhaustive investigation covering every tenement of whatever grade in the city of Boston.

The bureaus everywhere, whenever conditions warranted it, have investigated the subject of child labor and shown to the public all the facts connected with such employment, the evils it entailed upon the community, and the methods which could be resorted to for its reduction, and everywhere, too, the results have been beneficial. If the bureaus had never accomplished anything else than the marked reductions in the number of young children—those under ten years of age—who are employed in factories and workshops, they would have amply repaid the public for its expenditure in their equipment and support.

The publication of information relative to the inspection of factories and workshops in England and other countries, together with statistics showing the necessity for such inspection in this country, has led in several states to the establishment of boards of factory inspectors. These boards have committed to them the execution of all laws providing in any way for the benefit of those who have to work in any kind of productive establishments. These inspectors enforce the laws concerning the hours of labor, the employment of women and children, the guarding of machinery so that the operatives may be more free from accidents, and in all ways undertake the enforcement of all laws of the character specified. Through these efforts (and they were largely induced by the reports of labor statistics) child labor has decreased, accidents have been reduced in number and severity, the hours of labor have been shortened and recognized, and so all along that line of facts the influence of the reports of the bureaus has been enormous; the value of their statistics cannot be expressed by figures.

The first ten-hour law in this country was passed by the Massachusetts legislature in 1874. The statistics published by the bureau of that state helped the passage of the law in a marked degree, and saved its repeal in later years. The manufacturers, finding that they were brought under the ten-hour law so far as minors and women were concerned, felt that the manufacturers in surrounding states ought to be brought under like laws or the law of Massachusetts should be repealed, for they claimed, as

was claimed in England years ago, that in working under a ten-hour law the manufacturers of Massachusetts were placed at a decided disadvantage relative to the manufacturers in the surrounding states. The legislature therefore directed the Bureau of Statistics of Labor to investigate the subject of the hours of labor in that state and in the other New England states. The result of the investigation showed that, under a ten-hour system, the Massachusetts manufacturers paid more wages than those in the other states, where eleven and twelve hours were the rule; that they produced more goods on any basis that could be named whether per individual or per machine; in short that in every respect the Massachusetts operatives were under better conditions than those of the surrounding states. There has been no attempt since that report was published to repeal the ten-hour law of Massachusetts. On the other hand, other states have followed suit, until now that system prevails generally in the United States.

The bureaus have been very influential in securing a modification of the old common-law rule relating to the liability of employers for accidents occurring to their employes. Under this rule a workman cannot recover damages for injuries received through the carelessness or negligence of a co-employee, although a stranger might recover damages for an injury following the same carelessness or negligence; as, for instance, under the old common-law rule, a brakeman on a train running perhaps 500 miles could secure no damages from a railroad corporation in consequence of injuries received through the carelessness or negligence of a switchman along any part of the line, although the brakeman knew nothing of the switchman, had no knowledge of his skill or capacity when he engaged with the company, and in no sense of the word, so far as reason is concerned, could be considered the co-employee of the switchman; yet, although that common-law rule grew up before great industrial enterprises were established, judges had adhered to it and had ruled that in such a case as that just mentioned the switchman and the brakeman were co-employees, and therefore the employer could not be held liable. The agitation for a legislative change in this common-law rule in England resulted in the enactment of a law in 1880 changing or modifying the rule, and, in this country, the matter being taken up by bureaus of statistics of labor, several legislatures have been convinced of the justice of a change, and have therefore made it; the dire results which were predicted as

sure to follow the change of the rule have not followed. In this direction the bureaus have done a great service, not only to the employes of railroads and corporations engaged in productive industry, but in securing the public against the employment of incompetent men.

Another very emphatic influence which the bureaus have exercised is in the abolishment or modification of what is known as the "truck store" system, or, as it is more popularly known in some parts of the country, the "pluck-me" method of store trading. This system consists in the establishment of a store by the proprietors of a works for the supply of its employes. Formerly, in many instances, the prices charged at these stores were much higher than those charged at other places, and so the employe of a concern having a truck store was almost compelled, and in many instances actually compelled, to purchase the necessities of life for his family at an exorbitant price, whereby the employer made a second profit on the labor of the employe. In very many instances the workmen of such an establishment never saw any money from one year's end to another. The pay for the goods purchased in the store was secured by the payrolls, and the debts and credits left no margin on pay-day. Early in the existence of bureaus of statistics of labor this system was attacked through the statistical method, and the result has been that in very many states laws have been passed making it a criminal offense, in some cases, to carry on such a system, and in other cases making it the duty of the proper officers to see to it that they were regulated. The evils of the truck-store system has not yet been entirely eradicated in this country, but the change has been great, and the value to the wage receiver of the greatest importance.

In this connection I might mention the influence which the bureaus have had in securing more frequent payments for the working man. Formerly the payments were monthly. Under this system the credit system grew also, because without ready money the wage receiver must secure credit of his grocer, and the grocer, under such circumstances, looks out that the charges are sufficient to cover the delay in receiving his money or the losses which may come through his endeavors later on to collect the amount of his bill of the employer through the trustee or the garnishee system. Weekly payments have been shown by various bureaus to be beneficial in eradicating some of the evils of the credit system.

In some of the western states there have grown up during the past few years some of the most rascally practices on the credulity of the working man that have ever been known. They are robberies of the meanest sort, for they not only rob a man of his money, but in many instances of his manhood. The practice I refer to is that of a certain class of employment offices, located usually in the rear of some beer saloon, which advertise that a large number of men are wanted for labor in a certain city, but almost always at a distance. In a western city one of these offices advertised for one thousand men to proceed immediately to Washington, D. C., where employment would be furnished at \$1 per day. Hundreds of men responded to this advertisement. They were obliged to pay down \$3 or \$4, as the case might be or as the rascality of the manager might demand, and then the men were put off by various excuses for several days, until they began to clamor for their contract. When they became too demonstrative, the manager would pay back a part of the sum advanced, for the sake of integrity. Meantime, however, these hundreds of men, loafing about his beer saloon, had expended more or less money for beer, in addition to the fee paid for the supposed employment. In one city an advertisement appeared for a large number of men to be shipped to Iowa, while in Iowa an advertisement appeared for a large number of men to be shipped to the very place of the first call. The bureaus in some of the states where such practices have been carried on collected the information relative to these offices, and exposed the swindle perpetrated upon the wage receiver. Much good was derived from these reports, and, in addition to the laws in existence, others of a more stringent nature followed.

These instances of the direct influence and value of bureaus of statistics of labor are sufficient, it seems to me, to prove beyond any question their right to exist, their right to the sympathy and support of the public, and their right to ample equipment and means for carrying on their beneficent work. But they have another office to perform, which is one of the leading offices of statistics in every direction, and that is the correction of false impressions and the removal of apprehension, and two or three instances of this kind may perhaps be of service.

The statement is usually made by writers on the labor question from the capitalistic point of view that the prosperity of the savings banks of the country represents absolutely the prosperity of the workingman—that the total amount of savings

in such banks clearly indicates the prosperity of labor. I am not disposed to question this statement, so far as it applies as a principle, but I question the degree of accuracy contained in it, for the investigations have clearly shown that only about one-half of the deposits in the savings banks belong to men and women engaged in manual labor or in the toil necessary to the production of goods. Such a fact, properly brought out, simply sets peoples' thoughts in the right direction, although it does not disprove the sentiment underlying the erroneous sentiments regarding the conditions involved.

In 1878 a great deal was said about the unemployed in this country. It was reported, and the report was very industriously circulated, that there were from 200,000 to 300,000 people out of employment in Massachusetts, 40,000 in the city of Boston alone, and 3,000,000 in the United States. These figures were quoted in newspapers, works on political economy, speeches in Congress, political resolutions, etc., until they came to be believed everywhere, and yet no attempt was made, officially or otherwise, to ascertain the real facts. The Bureau of Statistics of Labor of Massachusetts undertook to make an investigation of the subject, and this it did at two separate canvasses, one in June, 1878, and the other in November of the same year. The result showed that in that Commonwealth, on June 1, there were 28,508 skilled and unskilled laborers, male and female, out of employment, seeking and in want of work, and that in November there were not more than 23,000 of the same class. On these bases there could not have been over 460,000 unemployed able-bodied men and women in the United States, ordinarily having work, out of employment at the time mentioned. The report further showed that in the state mentioned there were in 1875 only 316,459 persons engaged in manufactures and mechanical industries, in occupations upon which they depended for support, whether actually employed or not, and the whole number actually employed in the manufacturing and mechanical pursuits of the state was 308,963. If, therefore, there had been 200,000 or 300,000 persons out of employment in the state in June, 1878, as the alarmists were in the habit of stating, there could have been hardly any left in the factories and work shops of the community. The figures published by the report were used all over the country, and completely reversed the popular belief relative to the vast number of the alleged unemployed in the country.

But I think one of the most striking instances of the removal

of false impressions from the public mind relates to mortgage indebtedness on real estate. In a speech made in Congress in May, 1888, the statement was quoted from an agricultural paper that the estimated mortgage indebtedness of all real estate in Ohio at that time was \$701,000,000; in Indiana, \$398,000,000; in Illinois, \$620,000,000; in Wisconsin, \$250,000,000; in Michigan, \$350,000,000; in Iowa, \$351,000,000; and statements were made for other states. The Ohio and Michigan Bureaus of Statistics of Labor undertook to investigate this subject, through the offices of the registers of deeds, the boards of assessors, etc., and in these two states the mortgage indebtedness, as established and estimated by the Commissioners of Labor, was, for Ohio, \$330,999,205, and for Michigan, \$129,229,553, instead of the amounts popularly claimed. Under the federal census of 1890 an investigation was made relative to mortgage indebtedness, and the facts established with remarkable accuracy for the other states just named. By the investigation of the census it was shown that in Indiana the mortgage indebtedness is \$110,730,643; in Illinois, \$384,299,150; in Wisconsin, \$121,838,168; and in Iowa, \$199,774,171. It is a little remarkable that the sums accepted in a popular way for the mortgage indebtedness of the states named were in some instances exactly the valuation of all the property of the state. The extravagant figures quoted were used all over this country and in Europe, wherever capitalists were seeking investments in this country. The figures did immense harm; the wrong cannot be calculated; but as time goes on the statistics emanating from bureaus of statistics of labor and from the census office are removing the apprehension which grew out of the original statements.

Another feature relative to mortgages relates to the causes for which mortgages are placed upon farms in the western country. It has been claimed in recent years that the great mortgage indebtedness of western states is due largely to disaster or adversity. The Commissioner of Labor of Nebraska undertook to satisfy himself, by positive investigation, as to the truth or falsity of such claims, and he took as the territory for his investigation the county of Sarpy, covering the period from December 31, 1879, to January 1, 1890. Sarpy is one of the oldest counties in Nebraska, and it therefore offered the best opportunities for investigation in that state. The result as to the causes for the creation of the mortgage indebtedness of the county is shown in the following statement taken from Commissioner Jenkins' report for 1889-90:

Purchase money..... 58.00 per cent.

Permanent improvements.....	3.00 per cent.
Purchase of stock.....	4.00 per cent.
To meet personal obligations .....	.50 per cent.
To invest in real estate.....	7.00 per cent.
To invest in mercantile business.....	20.00 per cent.
Sickness.....	.25 per cent.
Unknown causes.....	7.25 per cent.

Allowing that all the mortgages from sickness and from unknown causes were the result of misfortune or of adversity of some kind, the foregoing table shows that 92½ per cent. were for legitimate causes and such causes as indicated prosperity rather than adversity.

The investigation under the eleventh United States census comprehends the object of indebtedness for 102 selected counties in several states, the results being obtained by personal inquiry through the experts of the office. That investigation is a clear and emphatic corroboration of the results arrived at by Commissioner Jenkins of Nebraska. It shows that to legitimate objects, indicating clearly prosperity and advancement, 94.37 per cent. of all the mortgage indebtedness of the 102 counties considered must be attributed.

The convict labor question is one that has attracted a great deal of attention during the last quarter of a century, but it was not until various state bureaus and the United States Department of Labor collected exhaustive statistics relative to productive employments in penitentiaries and other penal institutions and showed the effect of different systems of employing convicts that the discussion took intelligent shape. There has been much reform along the lines of convict labor. Many states have made experiments which have been abandoned, while others have established new systems which are progressing favorably; in the whole work the contributions of labor statistics have been of the greatest possible value.

The advancement of technical science, too, has been greatly accelerated by the exhaustive publications of different departments and bureaus of statistics of labor relative to industrial education. It is only recently that the different states of the Union have felt it incumbent upon them, through their legislatures, to study all the phases of industrial training, consisting of manual training, trade school instruction, and the higher technological or university work which is done in our institutes of technology. The United States Bureau of Education has aided the discussion and consideration of such matters, and its work

has been grandly supplemented by the state bureaus and the United States Department of Labor. It is now possible to discuss the question of industrial education in all its phases not only intelligently, but on the basis of practical experience in this and other countries.

These few instances show the enormous value of statistics in removing apprehension and in correcting erroneous views. The money value of such information is not easy to calculate.

In september, 1883, the heads of the few bureaus of statistics of labor then existing met at Columbus, Ohio, and organized the National Convention of Chiefs and Commissioners of Bureaus of Statistics of Labor. Since then these officials have met annually for the purpose of discussing statistical methods and the best way of collecting information and of tabulating, analyzing and presenting it. It was one of the early dreams of the founders of this convention that some uniform contemporaneous work could be undertaken by all the bureaus in co-operation, but this dream was fraught with many difficulties. States did not organize their bureaus at the same time. Many of the subjects which had been covered by those organized at early dates formed the subjects of investigation of those which had been established at later dates, and hence there was a conflict; for the earlier bureaus did not wish to cover again what was new and important to the more recently established ones. Another difficulty arose in the fact that the industries and conditions of one state were not common to all states having bureaus of statistics of labor. Notwithstanding the fact that the original idea has not been and cannot be carried out, the convention has been of the greatest possible value to the different states. At each annual meeting each commissioner of labor reports the investigations he has in hand, the methods he has adopted for obtaining the information desired, and all the difficulties and complications attending his work. These matters are then discussed and the experience of older commissioners brought out for the benefit of those who have more recently come into the work of gathering statistics of labor. Thus great advantage is given to even the older commissioners to gain fresh inspiration from the troubles and difficulties of those who are new to the work. The convention also helps to call public attention not only to the value but to the methods of the work being conducted.

Notwithstanding all that I have said relative to the value and influence of the statistics of labor, I am perfectly well aware that

they could be made of far greater value; but that greater value can only be secured through the direct action of the legislative bodies behind the bureaus. They are very poorly equipped. They need more men and more money. They need experience, which can only come through the influence of the executives of the states. With a longer tenure of office, and an increase in the equipment and means of the bureaus, their future usefulness can be made to far excel that of the past and of the present. The lines of work which they can undertake are numerous and inexhaustible. Knowledge of production is absolutely essential for the adjustment of many of the difficult questions we are facing to-day, and any contribution, through statistical investigation or otherwise, that will enable both the capitalist and his employe to more clearly understand the real conditions of production should be welcomed by all elements of the community. The bureaus must be kept in the future, as in the past, free from partisanship. The statistician is not a statistician when he is an advocate, no matter how skillful he may be in the manipulation of figures. He must be impartial; he must make his investigations without any reference to theories to be proved or disproved, and give to the world the actual results of his inquiries. This country lacks trained statisticians. We have no means for training them, except in the practical work of the statistical offices of the state and federal governments. These offices, therefore, become a school for the future, and the statisticians of this country that are to be of great service to the governments must acquire their knowledge through the statistical offices; but no work can be accomplished successfully without money and without men. We must look, therefore, to the legislative branches of our various governments for the increase of the usefulness and for recognized influence of our bureaus of statistics of labor.

## SOME OF THE ECONOMIC AND INDUSTRIAL PHASES

OF

### THE AMANA SOCIETY OR THE COMMUNITY OF TRUE INSPIRATION.

BY BERTHA H. SHAMBAUGH.

The information embodied in this article has been collected by the author during personal visits to the several Amana villages within the past twelve years. The statistics given have been furnished by members and officers of the Society to whom the author desires to express her sense of obligation. To Mr. Abraham Noe, secretary of the Board of Trustees, to Dr. Charles F. Noe, physician at Amana, and to Mr. John Haas, Sr., one of the elders of the Society, the author is deeply indebted for their courteous assistance. The manuscript for this article was submitted to the Society before publication.

#### HISTORICAL INTRODUCTION.

In Iowa County, southeast of the center of the Commonwealth of Iowa, there is a group of seven villages bound together and surrounded by 26,000 acres of Iowa's richest prairie land. This little garden spot of Iowa is the home of the Amana Society, as it is "known in law," or, as it is called by its members, The Community of True Inspiration.

This community was not founded by a social reformer or by political agitators. It is not an attempt to practice a system of economic theory. But it is rather the outgrowth of a united effort of a small band of German peasants to live honestly according to the promptings of their own consciences.

As a religious organization the community had its beginnings in Southern Germany two centuries ago, where its members, after the fashion of the age, suffered persecution and exile for the promulgation of their religious doctrines. Naturally they banded together in those troublesome times for mutual comfort and protection. In order that the little band might be fed and clothed it was resolved to rent enough land in common to give profitable occupation to each member of the group. And herein lies the beginning of their communal economic life. The failure of crops, the heavy rents, and the severity of the government

led the leaders of the community to seek a new home in a more promising land to promote their "temporal and spiritual welfare." A committee of four was sent to America, where, after numerous hardships, they selected a spot near Buffalo, New York. Here in 1843, Ebenezer, their first village of a communistic nature, was laid out. Two more villages were soon established and 800 persons of the faith came from Germany to join the American colony.

After a twelve years' residence in New York, the elders of the Society decided it would be for the best interests of the community to relocate on the frontier where land was cheaper and the opportunities were better for development. The present location in Iowa County, Iowa, was selected by the committee sent out by the Society; and here they have lived in peace and plenty for half a century. The little handful of Inspirationists in Germany struggling to pay the rent of their first estate has developed into the prosperous Amana Society of today with 1,767 members owning 26,000 acres of land and operating numerous mills and factories whose products find a market from Maine to California.

Thus it will be seen that Amana Society is not a creation; it is a product of gradual development. It has not been elaborated out of Utopian speculations; but it is the result of a long united effort "to live soberly, righteously and godly in the present world."

#### SOCIAL AND POLITICAL ORGANIZATION.

The permanency and the prosperity of the Amana Society is largely due to its perfect organization. The entire conduct of the affairs of the Society rests with a Board of Trustees consisting of thirteen members who are elected annually by popular vote<sup>3</sup> out of the number of elders in the Community. These trustees elect annually out of their own number a President, Vice-President, and a Secretary. All contracts are made by the Board of Trustees, which has, in short, all the rights and privileges of an ordinary corporation. In the month of June in each year the trustees exhibit to the voting members of the Society a full statement of "the real and personal estate of the Society."<sup>4</sup>

<sup>3</sup>"Alle männliche Glieder, die die Constitution unterschrieben haben, so wie auch Wittwen und solche weibliche Glieder, die über dreissig Jahre alt

<sup>4</sup>A Brief History of Amana Society or Community of True Inspiration, 1714-1900, by Dr. Charles F. Noe and Mr. Geo. Heinemann (members of the Society), published by the Society.

<sup>5</sup>Constitution, Article IV.

sind, und nicht durch ein männliches Glied repräsentirt sind; sollen zur Wahlberechtigt sein."—By-laws.

It has been the policy of the Society to re-elect from year to year those officers who have satisfactorily fulfilled their duties. The present officers have served nine years.

In each village there are from seven to nineteen elders, who are appointed by the trustees from the older and more spiritually inclined of their members. To the elders of each village is entrusted the management and control of the affairs of that village. It is this group of elders in each village that assigns to each member his apportioned task, his dwelling, etc. And to this group of elders each member desiring more money, more house room, an extra holiday, or easier work, must appeal; for these allotments are as occasion requires "revised and fixed anew."<sup>4</sup>

Every branch of service has its superintendent or "boss," appointed by the elders, and to whom the separate groups of workers are responsible, and who are in turn responsible to the Society.

The system of government is then a sort of federation wherein each village maintains its local independence, but is under the general supervision of a governing central authority, the Board of Trustees.

Each member of the Community "is in duty bound to give his or her personal and real property to the Trustees for the common fund, at the time of his or her acceptance as a member, and before the signing of the constitution. For such payments into the common fund each member is entitled to the credit thereof in the books of the Society and to a receipt signed by the President and Secretary of the Board of Trustees, and is moreover secured for such payments by the pledge of the common property of the Society."<sup>5</sup> These contributions to the common fund of the Society have varied from \$50,000, the largest sum paid into the treasury by any one member, to the bare working capacity of the ordinary laborer.

Every member is entitled to free board and dwelling, to support and care in old age, sickness, and infirmity and to an annual "sum of maintenance," the amount of which is fixed by the Trustees. "In consideration of the enjoyment of these blessings" the members release all claims for wages, interest, and any share in the income and of the estate of the Society separate from the common stock.<sup>6</sup>

<sup>4</sup>Constitution, Article VI.

<sup>5</sup>Constitution, Article V.

<sup>6</sup>Constitution, Article VI.

Members withdrawing from the Society are entitled to receive back the moneys paid by them into the common fund and to interest thereon at the rate not exceeding five per cent. per annum from the time of the adjustment of their accounts until the repayment of their credits, which rate is to be fixed by the board of Trustees.<sup>7</sup>

Amana Society is first and foremost a religious organization. Its communism is a means for the better development of a spiritual life and "is not practiced for temporal or pecuniary purposes or as an experiment to solve social problems."<sup>8</sup>

Because of the high standard of membership the increase from the outside has been slight during the past quarter of a century in spite of a large number of applications. New members after having given proof of being fully in accord with the religious doctrines of the Society usually have to go through a period of probation. The fact that all religious exercises are conducted in German makes it necessary that those desiring to become members be fully conversant with that language.<sup>9</sup>

The membership of the Society during its residence in Iowa taken by decades is as follows:—

January 1st 1861.....	572 members
January 1st 1871.....	1466 members
January 1st 1881.....	1521 members
January 1st 1891.....	1688 members
January 1st 1901.....	1767 members

The present population grouped according to ages is as follows:—

Number under five years of age.....	187
Number between ages of five and fifteen.....	288
Number between ages of fifteen and twenty.....	131
Number between ages of twenty and sixty.....	840
Number over the age of sixty.....	321

The number of births during the past ten years was 362; the number of deaths 272. Of the number of deaths but one was by accident and two by suicide.

Defectives (the insane, blind, feeble-minded and deaf-mute) are for the most part sent to the state institutions for treatment, as there are no special hospitals in the community. The milder cases are, however, cared for in their own homes.

<sup>7</sup>Constitution article VI.

<sup>8</sup>A Brief History of the Amana Society by Chas. F. Noë and Geo. Heine-mann.

<sup>9</sup>Ibid.

## THE VILLAGES.

The seven villages of the Society popularly known in Iowa as "The Colonies" are: Amana, the capital and the oldest and largest of the villages; East Amana; Middle Amana; "Amana before the Heights," or High Amana; West Amana; South Amana, and Homestead. The first three villages named have one postoffice in common at Amana. The postoffice for West and South Amana is at South Amana; while High Amana and Homestead have postoffices of their own.

Homestead was a postoffice connected by a stage line with Davenport and Des Moines when the Amana Society first located in Iowa. The railroad was extended through in 1861, and it was during that year that the embryo town was bought by the Society.

The Chicago, Rock Island & Pacific Railway passes through Homestead and South Amana. The Chicago, Milwaukee & St. Paul Railway passes through Amana and High Amana. The station agents at the several Amana railway stations, and the four postmasters are all members of the Society. All of the colonies are within a radius of six miles from "Old Amana." They are connected with one another, as well as with most of the important towns and cities of the state, by telephone.

The villages are laid out after the manner of the German "dorf," with one long straggling street and several irregular offshoots. The largest of the seven villages is Amana with ninety-seven houses for its 600 inhabitants. The smallest village is East Amana with thirty-two houses for its 140 inhabitants. Each village has its general store, its school and its church, Amana, Homestead and South Amana have hotels. At the railway stations there are grain houses and lumber yards. The establishment of hotels has been made necessary by the hundreds of strangers who visit the colonies every year. They come from the north, the south, the east and the west. Some come for the outing; for the colonies are delightful places, in which to spend one's vacation. Some are interested in political and social science and come for purposes of "investigation" much to the amusement of the colonists. But the greater number come out of sheer curiosity—to find out, as Charles M. Skinner expresses it, "What there is so durned private goin' on here."

The houses are two (sometimes three) story structures of frame, brick or a peculiar brown sandstone that is found in the vicinity. It has been the purpose of the Society to construct the houses as

nearly alike as possible—each as desirable as any other. The frame houses are all unpainted, the Society believing it to be more economical to rebuild when occasion requires than to preserve the wood with paint.

The style of architecture is the same throughout the entire community—plain square structures with gable roofs. In the summer time when the houses are uniformly half hidden with vines it is only with the aid of a weather-beaten sign peeping out from a wreath of grape vines or a cluster of roses that the stranger is enabled to distinguish the "hotel" or the "store" from the school, the church, or the private dwellings.

Each village has its own saw mill for the working up of hard wood, as the frame houses are for the most part built of hard lumber on the principle that the best material is the cheapest. The lumber used is obtained largely from the Society's own timber land.

The Amana Society does not insure its property against fire. Each village has its water tower and fire engine, and every able bodied man in the village is "ex-officio," a member of the fire department. Although the loss by fire during the last twenty-five years has been between eighty and one hundred thousand dollars, the society still deems it a matter of economy to rebuild rather than pay insurance premiums.

## THE LAND.

The land belonging to Amana Society is rich Iowa prairie land at its best. This fact is highly significant; since mutual sympathy and common beliefs without economic prosperity are not abiding bonds of union. Indeed the perpetuity of such a Society as Amana depends ultimately upon the environment of which the soil is the most important factor.<sup>10</sup>

The Iowa river furnishes the water supply for Amana. The water systems of the other villages are supplied by deep wells. The Homestead well is 2,300 feet deep. And in addition to these a canal six feet deep, from thirty to forty feet wide, and seven miles long was dug in the early sixties to conduct water from the river to the mills and factories in the villages to the north. In its course the canal runs through a lake covering about 200 acres, which lies between Amana, the capital, and Middle Amana. The course of the canal is kept clear by a stream dredge which was constructed by the Society several years ago.

<sup>10</sup> cf. Giddings, *Principles of Sociology*, p. 82.

Although the Society is still buying land, the manufacturing interests are so great that the Society finds it more profitable to rent some of its land than to devote the extra labor and capital to agriculture.

Exclusive of the rented and swamp lands the 26,000 acres belonging to the Society are divided approximately as follows:

Acres, timberland.....	10,000
Acres, cultivated fields.....	7,000
Acres, grazing land.....	4,000
Acres, occupied by villages and factories.....	500
Acres, vegetable gardens.....	100

#### AGRICULTURE.

The general plan of the field work is determined by the Board of Trustees, but a field "boss" or superintendent is responsible to the Society for the proper execution of their orders. He sees that the farm machinery is kept in order, he appeals to the elders for more men to work in the field when necessary, he obtains from the "boss" of the barns and stables the horses needed, etc.

There are from 175 to 200 hired hands, (outsiders and in no way connected with the Society), employed by the Society in the fields every year. Their hours of labor are from 6:30 to 11:00 A. M. and from 12:30 to 6:00 P. M. Their wages are from \$125 to \$175 per year, including board, room, heat, etc.

From fifteen to eighteen ox teams are used by the Society for the heavy hauling, it being the experience of the Society that they are better than horses for work which requires heavy and steady pulling.

The products of agriculture are for the most part wheat, (summer and winter), rye, barley, oats, corn and potatoes. The following was the yield for the year 1900:

Wheat .....	3,000 bushels.
Rye .....	2,800 bushels.
Barley .....	10,000 bushels.
Oats .....	45,000 bushels.
Corn .....	80,000 bushels.
Potatoes.....	28,000 bushels.

The Society makes no attempt to raise live stock for the market. It buys and sells stock when the market is favorable but aims to have in the end only enough for home consumption.

The following is a list of the live stock of the Society for the year 1900:

Steers and heifers .....	950
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Cows .....	700
Horses .....	225
Sheep.....	3,000
Swine.....	2,000
Poultry .....	.....

The agricultural products and the dairy products are mostly consumed by the society.

#### MANUFACTURING INDUSTRIES.

Amana's mills and factories were among the first erected in the state of Iowa. The two flouring and grist mills, one at Old Amana and the other at West Amana, were important centers half a century ago for the pioneer farmers for fifty miles around. With the exception of one flouring mill in West Amana, which is two miles from the nearest railway, all of the mills and factories are in the villages through which the railroads pass.

The Society is perhaps the best known in the business world through its woolen mills—one in Old Amana and another in Middle Amana—which have been in active operation for forty-two years. Over half a million pounds of raw wool are used in the woolen mills annually. As this is considerably more than the 3,000 sheep belonging to the Society can furnish, a great deal of the raw material is purchased in the outside market. Formerly it was imported from Texas, Colorado and other western states and from Australia. Since the imposition of a high tariff on wool no foreign wool has been used, and at present most of the wool is bought in the Chicago market.

The latest and most improved machinery for woolen manufacture is found in these mills. A number of inventions along this line have been made by members of the Society.

The Society does not patent its inventions, as they are made to facilitate their own work and not for pecuniary gain. The result is that these inventions are copied from time to time by the outside world.

There are about 125 persons employed in the woolen mills. Of this number from sixteen to eighteen are outsiders employed by the Society. Six or eight women (members of the Society) are employed in the woolen mills. This is the only place in industrial Amana, outside of the kitchen and the garden, in which women are employed. Their work in the woolen mills is largely hand work, such as tying threads as they are wound on the large reels. The women thus employed are those who are not strong enough or are too old to work in the kitchen.

One-half a million yards of flannel and ladies' cloth are manufactured in the mills annually, ranging in price from 20 cents to 85 cents per yard. Certain times of the year are devoted to the weaving of blankets, of which 5,000 pairs are made annually, selling at from \$2.75 to \$7 per pair. In addition to the above, 15,000 pounds of woolen yarn are made every year, selling on an average at 75 cents a pound. It has always been the aim of the society to manufacture "honest goods," and they have found a ready market from the Atlantic to the Pacific coast. Ten men, seven of whom are members of the Society, are on the road in the interests of the woolen mills. Some of Amana's customers have bought their woolen goods from the Society every year since 1848.

The hours of labor in the woolen mills for the greater part of the year are the usual Amana hours of from 7 to 11 A. M.; and from 12:30 to 6 P. M. But during the summer months when the orders for the fall trade are being filled the mills run from half past four in the morning to eleven at night (the factories are lighted throughout by electric light.) In spite of the long hours and the busy machinery there is a very unusual factory air about the Amana mills. The rooms are light and airy. There is a cushioned chair or stool for every worker "between times." An occasional spray of blossoms on a loom frame reflects the spirit of the workers. Here and there in different parts of the factory is a well equipped cupboard and a lunch table where the different groups of workers eat their luncheon in the middle of each half day. In the villages where the factories are located the boys of thirteen or fourteen years of age who are about to leave school are employed in the mills for a few hours each afternoon "to learn." If the work is congenial they are carefully trained and are given every opportunity to "work up;" but if this employment is not agreeable they are at liberty to choose some other line of work.

In "Old Amana" there is a calico printing establishment. The heavy cotton goods used here are manufactured for the Society in the southern states. Here 4,500 yards of calico are dyed and printed daily. The patterns for the calico are designed and made by a member of the Society. The colors used in the dying are chiefly blue, brown, or black. This "Colony Calico," as it is called, sells at from 7 cents to 10 cents a yard and is sold all over the United States and in Canada and is quite as favorably known as the woolen goods. There are from twenty-five to thirty-five

men employed in the printing establishment, ten or twelve of whom are outsiders. The working hours are the same as in the woolen mills.

The flouring and grist mills employ about sixteen men, five or six of whom are outsiders. The working hours are from 7 to 12 A. M. and from 1 to 6 P. M. At present a large addition to the flouring mill at Amana is in the process of erection. Most of the grain used in the mills is purchased in the outside market and a large part of the manufactured products is sold to jobbers in this and neighboring states. A few years ago the Society paid a premium on white corn, and in two years time almost the entire yellow corn crop of the vicinity has been replaced by white corn.

The following is a rough estimate of the number of bushels of grain purchased in the market outside of the community and the products manufactured therefrom:

BUSHEL.	PRODUCTS.
Wheat 10,000.....	{ Flour Graham
Corn 75,000.....	{ Meal Hominy Grits Feed
Rye 8,000.....	{ Flour Graham
Barley 10,000.....	Pearl Barley

The industrial efficiency of the operatives in the Amana mills and factories is noticeably great to even the casual observer. Each worker labors with the air of a man in physical comfort and peace of mind, and with the energy of a man who is working for himself and expects to enjoy all the fruits of his labor.

Besides the mills and factories already mentioned, the Society owns and operates two machine shops, one at Amana and one at Middle Amana; one soap factory at Amana; and one printing office and book bindery at Middle Amana. The job work for the stores and mills, the text books used in the schools, the hymn books used in the churches, and other religious books commonly read in the community are all printed at the Amana printing office. The Society publishes no newspaper or magazine, official or otherwise.

While water was the original motive power used in the mills and factories, it has gradually been supplemented by steam, so that during low water, or when for any other reason the water power furnished by the canal is insufficient, all of the mills and factories can be run by steam.

In three of the villages, Amana, Homestead and Middle Amana, there are licensed pharmacies. The quantity of drugs prepared for the outside market is not large, as no effort has ever been made to build up a drug trade. As a rule, only special orders are filled. Many physicians of the state prefer to get their supplies here rather than to send further east for them. The Society were the first people west of Chicago to begin the manufacture of pepsin, and their manufacture is still considered one of the best in the market.

In addition to the aforesaid industries, each village has its shoemaker, tailor, harness-maker, carpenter, blacksmith, tool-smith, wagon-maker, etc. These tradesmen, as a rule, do not devote their entire time to their occupations, but only make and repair what is needed in their line by the people of the village. During the busy season they stand ready to be called to the factory or the field as circumstances demand.

#### DOMESTIC ECONOMY.

Each family in the community has its own house. Each member of the family has his own room where he is at liberty to indulge his own taste in decoration, and where he may ride his hobby and store his keepsakes without being disturbed. There is no crowding anywhere in the colonies. The same spirit that led these people to believe that the purity of the community could better be maintained with more villages and fewer inhabitants in a village has led them to provide plenty of room for their people. In addition to his livelihood each member of the society is entitled to an annual allowance of from \$25 to \$40. This allowance is fixed by the trustees "according to justice and equity."

The annual allowance for each member is made in the form of a credit on the books at the store of the village where he or she resides, and all the goods obtained at the store are charged to this account. Each member has a pass-book wherein each debit and credit is entered. At the close of the year these accounts are compared and balanced.

Each woman in the colony makes her own clothes, and each mother makes the clothing for her small children. The village tailor as a rule makes the men's clothing. The dress of both men and women is plain in the extreme. Utility and not adornment is the chief regard. There is nothing characteristic in the dress of the men aside from its severity. The dress of the women,

however, can never be mistaken for anything but the Amana dress. Fashions never trouble them. The dress of today is the same as it was at the founding of the Society. Mothers and daughters, grandmothers and granddaughters dress alike, not in the sober grays of the Quakers nor in the more brilliant purples of the Amish, but in plain calicoes of gray or blue or brown. The waist is short and very plain; the skirt is long and full. An apron of moderate length, a "shoulder-shawl" and a small black cap completes the summer costume. The only headgear is a sun-bonnet with a long cape. The winter dress differs from this only in being made of flannel; a hood takes the place of the sun-bonnet.

Instrumental music and "worldly amusements" are forbidden by the Society; and so the German's natural artistic sense finds expression in the cultivation of flowers. There are flowers in the front yard, flowers in the back yard, flowers around the hotel and the school house, flowers along the fences and about the hitching-posts. It is safe to say that nowhere in the state of Iowa are there as many blossoms per square foot in July and August as there are in the Amana villages.

There is no cooking done by individual families in the community. Each village has from four to sixteen large "kitchen-houses" where the meals are prepared and served. The colonists are not faddists in their diet in any respect. Most of their food is raised by themselves and for themselves and is, therefore, of the best. On their tables are found the most delicious butter and cream, good bread and meat, and the choicest of fruits and vegetables. Breakfast is served at 6 o'clock in the summer time and 6:30 in the winter time, dinner at 11:30 o'clock, supper at 6:30 o'clock in the winter time and 7 o'clock in the summer time. Those who work at too great a distance from a kitchen to return for lunch during the middle of the forenoon and afternoon carry their lunches with them. Each kitchen is superintended by one woman, "the kitchen-boss," who is assisted by three of the younger women. These latter take their turn in attending to the diningroom, preparing vegetables, cooking, washing dishes, etc. The older women do not cook in the kitchen as a rule; hence it is necessary in some instances to hire help from the outside. The work in the hotel kitchens—exclusive of superintendency—is always done by hired help.

Each village has its bakery, butcher shop, and dairy. Wagons from these places make the daily rounds of the village kitchens.

The Amana Society is very thoughtful and considerate of its

women. In every department of service in which women participate the work is carefully apportioned to their strength. Women who have children under the age of three usually take their meals home from the nearest kitchen and are not required to take part in the general village work. During the summer months children between the ages of three and five are cared for at the kindergarten, to enable their mothers to take part in the village work.

In connection with every kitchen house is a vegetable garden of from two to three acres. Each garden is cared for by two or three women. This work is lighter than the kitchen work and the hours are shorter. Hence the garden work is allotted to the middle aged women. In this connection it might be well to repeat that according to the constitution each member of the Society is entitled to "support and care in old age, sickness and infirmity." Unproductive members of the Society enjoy all the privileges and the comforts that the community has to give. It is doubtful whether there are many places in "the world" where more tender care and respectful attention is given the aged and infirm.

#### EDUCATION: ARBEITS-SCHULE.

The Amana schools are public, not parochial, being supported by the township and sharing in the school fund of the state. Amana township, which the society owns, is divided into independent districts with a school house in each village. They levy their own school tax, build their own school houses, and employ their own teachers. These teachers are all members of the Society and are well educated in both German and English. They attend the County Institute and are examined by the County Superintendent.<sup>11</sup> The wages paid them are \$30 per month for twelve months; but since they may not keep the money it is turned over to the Society. This amounts then to simply a transfer of figures on the books.

Education in the Amana community is compulsory: Every child must attend school between the ages of five and fourteen. The sessions open early and close late, and there are no vacations. What would otherwise seem like a long tiresome daily session is broken up into three parts:—1 *die Lehr-schule*, when all the common branches are taught; 2 *die Spiel-stunde*, or hour of play, when the children romp and play their quaint little German

<sup>11</sup> "History of Amana Society by William Rufus Perkins and Barthinius L. Wick. Published by the University of Iowa."

games; and 3, *die Arbeits-schule*, or manual training department. In this latter department, during the winter time, the younger boys and girls are taught to knit and crochet. One is surprised to learn how many pairs of stockings and mittens these little folks can make during the year. The older boys usually go during this hour to the different shops and factories for instruction in the trades. The older girls clean up the school house and help in the knitting department. During the summer months, the children keep the school premises in trim—cut the grass, care for the flowers, etc., or help in the garden or the orchards. The atmosphere about the school is more like that of a large household than like that of the ordinary school. The perfect equality maintained has eliminated that shrinking timidity so common among small children. Each child has the air of a stock-holder in the corporation. School discipline, as a care, is reduced to a minimum. When a community of men and women have for generations maintained the same high standards of living and of thinking, it is easy to understand why the school children of to-day are so uniformly well mannered and obedient. There are mischievous boys and giggling girls, but such types as make our city teachers grow old before their time are wholly wanting. No Amana boy or girl has ever been sent to the State Industrial Schools.

The teachers in the school proper are all men, but there are women among the "working teachers." "Religious instruction is given, and practical christianity is taught by the parents, and also by teachers to children and young people. The confirmation or reception into the covenant of grace, occurs at the age of fifteen. It is a most solemn act, conducted in open service, when the vow is made in the presence of the whole congregation, as a covenant of faith and with God."<sup>12</sup>

Of the religious life of the community we are not concerned in this article. Suffice it to say that in their business relations as in their private life their aim is to "serve God according to His laws and His requirements in their own consciences, and thus to work out the salvation of their souls."<sup>13</sup>

#### ECONOMIC PROSPERITY.

Although farming and manufacture are not the end of the

<sup>12</sup> "A Brief History of the Amana Society or Community of True Inspiration, 1714-1900, by Chas. F. Noé and Geo. Heinemann, p. 28.

<sup>13</sup> *Ibid.*, p. 23.

society's activity, nevertheless their economic life is most prosperous and successful.

According to the books of the Auditors of Iowa and Johnson counties the assessed valuation of all property owned by the Amana Society in the year 1890, was \$439,653.00. This assessment, being based on 33½ per cent. of the actual valuation makes the latter \$1,318,959.00. In 1901, the total assessed valuation of all Amana property in Iowa and Johnson counties is \$411,155.00. This valuation is based on 25 per cent of the actual value, hence the actual valuation of Amana property—real and personal—at present, is about \$1,644,620.00. The increase then in the valuation of the property belonging to the Amana society in the past ten or eleven years has been something like \$325,671.00.

This increase in valuation is principally due to the advance in the value of land.

#### THE KINDERGARTEN AS AN EDUCATIONAL FORCE.

(An address delivered by Prof. Francis E. Cook before the Seventeenth Annual Convention of the Officials of Bureaus of Labor Statistics, at St. Louis, Mo., May 23, 1901.)

PROFESSOR COOK: Mr. President and Gentlemen of the Convention:

I desire to say to you at the beginning that I do not know when I have experienced the amount of anxiety which oppresses me at this present moment. I realize so fully the importance of the short period that I have to address you here. If I can succeed in telling this story to you as it ought to be told I shall have the gratification of having been the humble instrument of getting you to go back to your respective localities and advance this great interest of the kindergarten as one of the fundamental levers for the upbuilding of the condition of labor throughout the world.

"If there had been no kindergarten there would probably have been no manual training as an educational function," is the frank, generous, and modest acknowledgement of his indebtedness to the influences of the kindergarten by none other than Prof. Calvin M. Woodward, whose words you had the pleasure of listening to this morning, and who is the founder and promoter of manual training in America, an institution which has done and

is doing so much towards the elevation and purification of our pedagogic ideals along the lines of industrial education. A similar acknowledgement might justly be made to the kindergarten on the part of every other prominent feature of what, taken in the aggregate, has been designated the "new education," such as domestic science—observation, correlation, concentration (terms quite hackneyed with us and yet full of significance in our profession) systematic science teaching, nature study or the object method of teaching primary arithmetic, and, above all, the great revolution which has taken place in the teaching of primary reading, where the empty and mechanical word study of the past has yielded almost universally to the natural, free, full, and fluent discovery and use of words in the expressing of facts derived from the handling of objects or in the actual and interested contemplation of things and processes. Now it may be truly said that the rat, cat, and mat method of teaching primary reading has been supplanted by one which no longer nullifies or obstructs the work of the kindergarten, but hospitably receives its momentum, utilizes its inspiration, and builds upon its work. The spirit of Froebel has softened discipline by enabling it to flow through channels of greater interest more rapidly and constantly towards the goal of self-help, voluntary individual effort for the good, and constructive power. In short, the kindergarten is abroad in the land and is affecting our entire educational curriculum from the bottom to the top; and no where more completely than in the interest which is being manifested by teachers of recent years in supplementary literature—that is, in the preparation and use of graded English classical literature for the child's supplementary reading.

When we turn from the kindergarten to the kindergartner we shall behold a spectacle big with promise for the future of education in the United States, as her example comes to be followed more and more by her fellow teachers in higher grades. Behold her in her normal training school, as an artist doing her own work, as an artisan elevating herself to loftier planes through the study of great literature, whereby her emotions are purified, her taste is cultivated, her intellectual vision is deepened and broadened by the contemplation of these lofty and universal ideals. Her general, nay indispensable, example cannot in the future but become as a great light in the darkness to illuminate those in the valleys to the serene heights that can be reached only through culture.

A notable fact in this connection is, that while the *effects* of the kindergarten are being received and applauded in all directions, while the results of the kindergaten are being generally approved, there remains a singularly tardy recognition of the source from which these benefits have flowed. The influences of the kindergarten are felt on every hand, but the kindergarten itself is either unknown or misunderstood. There still prevails the belief that a kindergarten is nothing more or less than a day nursery for the custody of the children of busy but indigent mothers, or that it is a play-room for children where caprice is allowed to run riot at its own sweet will, or, with singularly inconsistency, that it is a place where the spontaneous play of childhood is curbed and repressed in the interest of premature education and discipline, or that it is a field for fads of recent growth (a charge to true in many misguided quarters, but absolutely foreign to the teachings of Froebel). Such beliefs are as false as they are mischievous and misleading. They are worse than no beliefs at all, on the part of those who entertain them. Froebel was a genius, and the great point of his success is that he succeeded in the infinitely delicate task of harmonizing spontaneity and will discipline.

Another remarkable fact is that while the kindergarten idea has been received, adopted, and even incorporated into the curriculum and school systems of many of our sister states, in my own state of Missouri, on whose soil the American kindergarten movement had its origin, we have lagged behind in our appreciation of the benefits of this institution. Missouri, upon whose soil the free public kindergarten had its origin, has for more than twenty-five years confined its privileges to its birth place, the city of St. Louis, with the single exception of Kansas City, where in the last four years they have adopted six kindergartens, which are successful and which bid fair to become permanent.

To me a supreme moment in the history of education was that when Dr. William T. Harris, the present Commissioner of Education, then Superintendent of Public Schools of the city of St. Louis, and Miss Susan E. Blow, founder of the free public American kindergarten, first met to consider this momentous question, fraught with so much of weal for the cause of education. Then were planted the seeds which have grown into all that is substantial and abiding in what is called the "new education." She came with her splendid enthusiasm, native intelligence, tact and skill, fresh from the study of a kindergarten in its purest

form. He recognized in her equipment the very embodiment of his profound pedagogic philosophizing, and she recognized in this the very soul of her methods. Then and there theory and practice, perfect form and perfect system, united in the originating and promoting of this latest and most potent of educational reforms. That was more than twenty-seven years ago.

It has been said, with much show of truth, that Doctor Harris really smuggled the kindergarten into St. Louis educational reform. The citizens were not ready for kindergartens in those days, but to-day we no longer have to urge them to adopt the kindergarten. They now demand it with an urgency that is irresistible, and whenever a new school building is to be erected it goes without saying that the architect must provide in his plans and specifications for a suitable room for a fine kindergarten. To-day we have 120 kindergartens in seventy-two different schools. We have enrolled in our kindergartens 10,000 children, and in charge of them 221 kindergartners of the very finest type. They have at length become in all respects an integral part of our educational system.

Early in its history was organized by Miss Blow herself a Kindergarten Normal Training Class. This institution still survives and flourishes under the guidance of Miss Mary C. McCulloch, the indefatigable, intelligent, and tactful supervisor of kindergartens of the St. Louis public schools, a position which she has held successfully for more than seventeen years. From this school have gone forth at different times those trained kindergartners who are doing noble missionary work throughout the length and breadth of the land. To-day the school numbers some seventy-four cadets. They have a two years' course. The completion of the first year's course entitles the graduate to a certificate which would make her a paid assistant in the schools, and the completion of the two years' course, a diploma which makes her a director.

The aim of Froebel may be summed up in these four words—continuity, unity, self-activity and freedom a rubic well known to all good kindergartners. What they mean by continuity is to teach the child a generic development or a seed germ, showing the steps by which through cause and effect it runs up from one point to another—a kind of evolution. They never miss that. They get a continuity of progression and relation, not one that would link, as the Herbatians do, in an endless chain of cause and effect, a transcendental will and a transcendental intellect. By unity is meant unity not of aggregation, but organic unity—that

is to say, a unity which originates from and is composed of and generates variety—the many in one; a self-activity not born of caprice and ministering to the same, but a self-activity which surrenders the willful self to those larger selves into which we are born, those institutions of spirit—the family, society, the state, and the church—a self-activity, therefore, which, instead of encouraging the child to become capricious and willful, inculcates in him the lesson of subordinating his willful self to the general will of all; a freedom which does not mean license, but liberty within the law. Freedom is one of the great points of the Froebeliens and the kindergartners. That is the end and aim they have.

Having signified briefly something of the aim and purpose of Froebel, I shall touch for a moment upon the history, or rather the origin and use of the methods by which he proposes to realize these ends, and in that I shall largely quote from Miss Blow, almost repeating her words as near as I can recollect them, her ideas being so familiar to me from old acquaintanceship. I remember that she first speaks of man's destiny; that his destiny is to reach self-consciousness, and he is helped in this by three things—by nature, by his own activity, and by his relation to other men (in institutions, or in history). And, again, she says that man is born in unconsciousness and destined for freedom, and is always making the ideal real, making the abstract actual. Then she enlarges upon this, leading to psychical development. We feel before we think. We express those feelings in actions; those actions create deeds of some kind; these deeds are contemplated by the mind or by the intellect, and a certain emotion, a pleasurable sensation, is engendered at the contemplation of our own activity. This pleasurable emotion begets a new activity, which makes a new creation, and that creature is the object of contemplation of the fresh intellect, which experiences a fresh feeling of gratification, and so on to the end of the world, from cradle to grave, without ceasing. We begin, we feel, we act, we contemplate, we create, we contemplate the object of our creation, which sets the wheels in motion again, and so on in a circular movement forever. This was the idea advanced as being the view of Froebel himself.

If this be true of the individual, it is also true of the human race. Man has developed in the same way. When men have felt more than they have thought, they have been driven to express those feelings in the form of symbolism, and so they have

created the sphinx, the chimera, and a thousand and one myths and imaginary forms to express those emotions, concerning which they had not a very clear notion. I remember the definition of John Fiske, that a myth is the form which ignorance adopts to account for phenomena it does not understand, and so the imagination goes on and creates, through symbolism, these different mythical forms, but does not pretend to explain their significance, does not know their significance, takes them literally, and leaves to the future the task of their interpretation. Froebel was the first educator (and the greatest) to notice this parallelism between the development of the race and of the individual. As the individual grows from his childhood and infancy, so has the race had its childhood, its infancy, its middle age, and prime, and old age. Noticing this parallelism, and seeing how nations have acted, Froebel adopted symbolism as the great instrument by which he was to teach little children. He says in this connection that if the little child is to be taught fundamental ideas it must be done in the form of symbolism, and so he invented his wonderful gifts and occupations, and these gifts and occupations I shall, in a moment, undertake briefly to explain to you and enlarge upon, even at the expense of "carrying coal to New castle," for I may possibly be telling you something you are more familiar with than myself.

At the suggestion of your president, Mr. Wright, I shall at this point give this address, which was an educational paper which I delivered in Memphis and in Chicago before assemblages of professional teachers, and which was designed to show the influence of the kindergarten on our higher work, an industrial turn to show the relation of the kindergarten to the industries. That is specifically the purpose of Froebel's gifts and occupations. He has a third invention—and that I think was the most marvelous of all his work—his mother play-songs, which were designed to throw the child into sympathy with the institutional world—society and the social order—and to make him appreciate and understand the beauty and dignity and purity of honest labor. That is one of the great cardinal doctrines, one of the strong points in favor of the kindergarten, and it is inculcated into the minds of the children at the very beginning—respect and affection for the honest laborer. The gifts and occupations of Froebel comprehend two-thirds of his methods, but, taking a hint from Goethe's *Wilhelm Meister*, he set his whole work to music—that is, music was the central idea—and the burden of all his

songs is unity—the one under the many, the unseen under the seen.

Froebel was the first educator to advocate clearly that there is a will and a heart susceptible of education as well as an intellect; that is to say, that not only the hand and the eye—what is called the physical—should be educated, but that the will and the heart were susceptible of and entitled to education as well as the intellect. This is manifest throughout his methods. He always provides for the will and the heart, and of course activity for the body constantly—for the disciplining of the muscles and of the senses; but this is chiefly manifest in his songs, where we have words for the intellect, music for the heart, and gestures, beautiful gestures, for the will, where the children undertake to imitate the actions they are singing about.

In the passage from feeling through action to thought the æsthetic sensibilities of the child are cultivated in a thousand and one ways. For instance, he is taught the lesson of symmetry and harmony and proportion; he is taught cleanliness and neatness of person and environment; he is taught harmony of color and tone, both in song and speech; he is taught symmetry of work; he is taught grace of manner; he is taught politeness, and with politeness and consideration for others his ethical culture begins. One of the great points of Froebel's system is the great force he gives to ethical culture. Through what may be called institutional sympathy the child is prepared for contact with the outside world—with the working man, with the business man, with the professional man, and with life. His little sympathies are dwelt upon, encouraged and brought out, and he is taught a respect for the great institutional world around him, and especially how to become a useful and effective members of that community into which he is soon to graduate.

I shall conclude this part of my address by speaking of the conscience. Conscience has been defined—satisfactorily to me—as the criticism which the ideal is constantly making upon the real. It is the criticism which the "ought to be" is always making upon our "is." Thus conscience is susceptible of cultivation and education. How? By purifying and elevating our ideals and thus enforcing the criticism upon their actual realization. Conscience has been defined to be the bridge which leads from ethics to religion, which begins with a sense of community and rises into consciousness with the feeling or the knowledge or the conception that underlying the universe is a *person* and that forces

or principles—that is, moral order, supreme idea, absolute harmony, persistent force—are not religious categories, but that God is a religious category. The sooner the child is taught that underlying all is an intelligent *personal* Deity the better for him. That is Froebel's view of the case.

To sum up: The key to the aim of Froebel is unity, or the unseen under the seen—that is to say, the hidden under the visible, called by him "inner-connection." The key to his method is the recognition of the parallel between the growth of the individual and of race.

The devising of the gifts and occupations and mother play-songs was based upon the recognition of this parallelism—the development of the individual and the race. As the race has developed through symbolism, so each individual child must go through the same experience, if fundamental ideas are to be imparted to him. Froebel was the man who was successful in performing that most miraculous thing, the harmonizing of these apparently irreconcilable antitheses of spontaneity on one side and will discipline on the other, and he succeeded in doing it by interesting the child in these very things which I shall now, under the suggestion of your president, try to elaborate to you. In doing this I take this occasion to make my acknowledgments of my indebtedness to the great little book of my friend Mr. Denton J. Snider of the Chicago Kindergarten Normal School, entitled "The Psychology of Froebel's Mother play Gifts."

These six little balls (indicating), rubber interior with worsted around them, are called the first gift, which is the very first thing put into the hands of the child. You see it has a little string and it hangs by that. The child wants to handle it, wants to use it just as soon as possible. There is a sort of providence, a divinity, that seems to control it, and he wants to be the providence; he wants to control it. The ball is divine and gives its form to the planets and the circular movement of the stars, and when the child uses it he begins to understand and to realize the firmament just in that way, and it is designed for that purpose. The cube is human, and when man begins to create he makes the cube. The value of the ball is simply this. It has center, it has radius, it has a periphery, a surface. It must not be too large; it must be made small enough for the child to get it into his hand. It yields—it is made for that purpose; it is elastic—and then returns. It is a tender little thing; there is an inspiration to love and affection in it. The child will roll it about and its movement

leads him to suppose that there is a principle of life in it. That is one of the strange things in connection with this. This is called the potential gift.

There are six of these balls. The first three are of the primary colors—that is to say, the blue, the yellow, the red. Then we have the three secondary colors—the orange, the green, and the violet. This is supposed to be, by the best critics—and I coincide with them—an error on the part of Froebel. These three gifts have been thus complicated, and there is too much color, and it gets us away from the ordinary threes that run through nature—subject, object, and returning to the same. That psychological movement is a marvelous thing. There is first emotion, the will, the activity, the expression, the comprehension by the intellect, and the returning to the subject. This ebb and flow is symbolized by three—the Trinity—and the Trinity runs through all the gifts except here; so we think this was a mistake. As the child moves with the ball he looks up to the sky above and sees that he is in the center of the horizon, and as long as he advances he is still in the center. Every time he moves he changes the hemisphere above and around him and he moves back and forth, and around from right to left, and he carries his ball with him. He gets the idea that he is the center of things. He feels this ball and he sees that it is round. He gets that notion, and it soon begins to run through his head that there must be a center and that he has got to maintain that center or it will not go round evenly. He gets center and radius, and after a while he sees that there is radius on the other side, and he gets the diameter running across in different directions. The sole point of Froebel is continuity—to show how one thing grows out of another.

The very next thing is the second gift, which is the sphere, the cube, and the cylinder. We have made the child conscious, by means of the first gift, and when he takes up this sphere he has created it in his mind already. There are center, radii, a periphery, or surface, and that is the sphere. The next thing is this cylinder (indicating), or, rather, the cube. The cylinder Froebel did not invent in this connection until just before he died (1852). He was always working on these gifts and adding something. We cut this sphere in four directions, and we have four planes and eight angles brought to a center. There is the point in the center, and the point is brought out explicitly. What is a cube? A sphere turned inside out; and that is the first movement the child goes through, with his hands, when he

creates the cube. Of course, this cylinder is intermediate; it is half sphere and half cube.

The third gift is nothing more nor less than a two-inch cube, cut so as to make eight little cubes of one inch. You see the wonderful significance of that—addition and subtraction. The child moves them apart, and he counts, and adds, and subtracts, and arithmetic begins. We also have a little geometry all the time; we also measure and have a little of elementary trigonometry. The child begins to make little things of these cubes, but the principal purpose of this third gift is that it gives him the cubical inch, the square inch, and the linear inch. *It is chiefly the measurer.*

The fourth gift is a very rich one. It is a little two-inch cube, cut so as to make eight little parallel bricks two inches long, an inch wide, and a half inch thick. This gift is used a great deal by the little kindergartners. It enables them to enclose. They build with them; they make a fence,—put these cubes inside and surround them. This cube is solid and conservative. It can lie flat on its back. This little fellow, the brick, is full of life; it can lie on its side and do a great many things the cube cannot do. You see what we are doing. We are gradually going from a solid to a point—going back and creating these things, and leading up to the industrial occupations.

The fifth gift is also a very rich one. It is a three-inch cube, and we cut it through in two places, making three cubes. Then it is cut at right-angles in the other direction, making twenty-seven cubes. Then we get a new form. We cut them diagonally through from one angle to another. Thus we get the triangle for the first time—right-angled isosceles triangle. Furthermore, we cut the block into four triangles. They are all right-angled isosceles triangles. This is particularly the gift where numbers come in. With this gift we count back. With these little cubes we get one-eighth, one-fourth and one-half; and with these one-twenty-seventh, one-ninth and one-third.

The sixth gift is an advance. The great point is that there is a relationship between all these gifts. The first gift is, in a certain sense, the ancestor of all these other gifts, and although they vary and depart the connection is kept up. You have the three-inch cube just the same as in the fifth gift, and then it is cut to make twenty-seven little bricks, just the size of the other bricks of preceding gifts. In addition to that, you have the end cut down. Out of that you have made twelve little

square plinths an inch long, an inch wide, and half an inch thick. These plinths are used in architecture. Some of these little bricks are cut lengthwise into little parallelepipeds, and with this little gift of architecture we begin to make the Parthenon and the Greek temple. You see, however, that Froebel has not given us the *arch* yet. He was always dealing in crystals, which have no curved lines. He also studied architecture, but the architecture which revived the architecture of Greece—simply the beam brought up in this way (indicating) the architrave, the two columns, and the line across, but no arch. But here we have another gift—simply *curves*. We take a hollow cylinder and cut it into four parts; and then we take the scissors and cut these into eight parts, getting the curvilinear, which enables us to form the arch. The arch, of course, is Roman. It originated in Egypt, but the Romans *made use* of it. Then they took the Greek column and put it as an ornament merely upon architecture, and it was for the Gothic architecture to use both the Greek column and the Roman arch—that is, to make them a portion of the structure, an integral part of it. Of course, the children go through all that. They take these little blocks and make a city. They build a house, a school, or a church, and surround it with a wall, and do all sorts of things in that way. They are constantly changing the form of these and recreating them.

The next thing we are going to do is to bring the child to a spiritual view of things—get him closer to the surface, line, and point. Of course, you know that the line and the point have no dimensions; they are simply imaginary things. But we have materialized them, as it were, for the little children, and make them a line and a point, and get the conception in that way.

I want to say why these are called gifts. It is not because they are a present to the children, but it is what has to be given by the instructor in order to enable the child to do his work. To get his mind into self-activity you have got to present him with something on which to make a beginning. The economy of our educational work is that the child does not waste his time experimenting with imperfect material, but is given the absolutely perfect thing to deal with at the beginning. Time is saved, and that is economy. Not only that, but he is taught the great lessons of industry in that very connection.

We are going to take the plane out of this gift (indicating.) We are going to slice the cube and get the plane. Here are some of the different planes we have been able to get out of

those blocks. They are right-angle isosceles triangles. There we have the circular surface, and here (indicating) we have little tablets that have been made out of these blocks.

The next step is to take the child to the line. We have made figures here with only two dimensions—length and breadth. Now we are going to withdraw the breadth and the depth or height, and leave only length. The line is either straight or curved, and with this gift he makes the different angles; and with these circles and these rings he makes all sorts of forms, and finally the concentric form. You see we are gradually moving towards the point.

Now we have the tenth and last gift, the point. The child has been brought from the cube clear down until he has reached the point. How do we materialize the *point*? We give him the bean. The story of vegetation—planting the seed, the growth, maturity, returning to the seed in the soil again—completes a circular movement. It begins with the germinal idea and comes back to itself again, just as I have stated. So we take this for the point, and from it create lines and angles. The child is going back to the beginning and recreating these things. He starts with this little bean. What is a line? Nothing more than a succession of points. This bean represents the point. The line is turned into the surface; the surface is turned into the solid form again, and the child recreates the cube and the sphere and cylinder.

The industrial part of Froebel's method—what we call the occupations, is very marvelous. After the child is taught these fundamental forms by his teacher he is to *make* them in the occupations; he goes right to work and *makes* these things. That is where industry begins. He models these forms, he weaves them—recreates, you might say, the whole natural and institutional world. He begins with what is called the "plastic occupation." He takes modeling-clay or wax, and makes all these forms over again. First, he makes the sphere with his little hands. The child should be given a tool just as soon as he can use it to advantage over the hand. The hand is all right, but you notice that it is not the hand-working people but tool-using people who have made the greatest progress in industry. The child shaves the cube down with a knife or some other sharp instrument into these little blocks (indicating).

The *industrial* occupation begins when the child starts to make these abstract magnitudes—that is, the point, the line and

the surface—because it is through these that he recreates his world. The first thing he does is to model in clay, just as he did before, but it is an *industrial* modeling. He is modeling the surface.

The next step is to make the line. The first thing he does is to string a line of beads. He takes a string and puts a lot of beads on it. The bead is a little sphere, and the hole in it corresponds to the diameter of the sphere. Then he strings the cube and the cylinder, to show that there is a diameter running through the cylinder in the same way. He learns a great many valuable lessons of that kind.

He next makes the *point*, and that is done with his lead pencil. He takes a piece of paper and pencil, and he begins to make little dots—little points close together. He next takes a little sharp instrument and perforates the paper, and makes lines in this way. By these perforations he makes different shapes and forms, curved and straight. That is the second useful industrial occupation. After he has made the perforations he takes the scissors and cuts a line of paper. Now he is going to turn that line into a surface, and the first thing he does is to take little strips of paper of different colors and interlace them, making an artificial surface. The next thing is the developing of the surface in weaving.

The next occupation is that of stitching, and here is some work which shows how the children follow the line (indicating). They stitch an outline, or, rather, enclose a surface in a line of worsted. The next step is to turn a plane or a surface into a solid, and here sewing comes in. Sewing is a union of two surfaces stitched together. How? By means of points and lines. The next step is what we call box-work. The children make a little box, and then they intersect and divide it with partitions. They make concentric boxes, etc. They are constantly going back to a center, this generative point, which is really the essence, the *ego* out of which the whole system grows. This imaginary center or point is a most important idea.

Now we come to industrial *drawing*—that is, the “graphic” industrial occupation. This cube, made of sticks for edges and peas for corners, is empty. The only things that are real are the point and the line and the surface. There is nothing inside of the solid at all. That gives the child his hint and intimation of *drawing*. What is he going to do in drawing? He is going to create all these forms and solids. He is going to see that these

are forms in graphic industrial occupation. He gets that conception of the emptiness of the solid and how it can be created by drawing work. He therefore starts in the graphic industrial occupation, which is drawing, and his implement is the pencil. He is allowed to draw with his pencil at first, and finally he finds out that he cannot do much in this way. He must have perspective drawing. Froebel uses some papers that enclose little squares for this purpose, and in that way the hand and eye are trained. After that he is taught free-hand drawing, creating all these different basic forms, and then he is allowed to create at his own free will and to draw the most beautiful things.

In the songs and games of Froebel we have a wonderful and sublime ethical influence. As I have already intimated, they connect the child with the great social world around him in which he lives, and I remember one little stanza that Froebel composed, in connection with his “Song of the Wheelwright;” it is a beautiful thing:

“Why does the child desert his play,  
The craftsman’s work to see?  
Something within, and latent still,  
Starts at each stroke of strength or skill,  
Whisp’ring, ‘work waits for me.’”

Froebel is constantly trying to connect the child with industrial work, to make him love it through its beauty, its benefit, and its great social force. In the “Song of the Charcoal Burner” he tells the story of his occupation, and how, if it were not for him, we would not have a good many things, and they learn to respect the charcoal burner. In the beautiful little “Song of the Carpenter” they build a house with their fingers and thumbs and they thank the carpenter for it. They are taught that the Divine Carpenter came and was good to us, and that they must love the God that made the world. The design of this great artist, this great genius, in all these songs was to educate them to better thoughts and to inculcate in them a respect for honest labor. The sociological training of the kindergarten gets the child in sympathy with industry, with the trades, with labor, and make a useful citizen of him.

In the year 1836 Froebel wrote a remarkable little work, an essay called the “Renewal of Life,” and in that he predicted that the United States of America, strange to say, was the field best suited, on account of its principle of freedom, its true Christianity, and its pure family life, to receive his message and profit by its

teachings. That these words were prophetic seems to be demonstrated by this wave of new education which I have spoken about and which is going over the land carrying the spirit of Froebel. Froebel was the first educator in this world to realize, and embody, and carry out the idea that by teaching the will and the heart, as well as the intellect, you do that which has later been expressed by the well known dictum of Dr. Woodward's, "send the whole boy to school." And when the good time shall come—I am looking forward to that—and come it will, when the heir shall come into his own, and there shall arise a general recognition of the source, the true source and origin of all these elements in our educational reforms, then we shall realize more fully than ever before the significance of those words of Holy Writ—"And a little child shall lead them."

MR. WENNERSTRUM: I would like to inquire at what age you start the children to the kindergarten.

PROFESSOR COOK: Froebel's age is four and five years. Our legislature has stupidly put the age at six, when a child ought to be in the primary department. We hope to get the age put where it was originally—five years. It was that when Doctor Harris was here, and was changed after he left.

MR. JOHNSON: I would like to ask the Professor what the experience is in regard to the effect of this attempt at early training on the physical condition of the child. I have heard it said that the effort to concentrate the mind, the effort to restrict the movements of the child, at so early a day had its effect in development, or rather in lack of development, in after life. Do you find that that experience is true, or that such training does in any way effect the physical condition of the child afterward?

PROFESSOR COOK: It has never been perceptible to me. Of course, the kindergarten has been in existence only twenty-seven years from the very beginning, and we can hardly judge its effects accurately upon the child, but I think the statistics in that respect are in favor of the kindergarten. There is no effort at concentration. It is play. The children enjoy it, and they are not kept at their little work long enough to make it tiresome. I think that the effects of the kindergarten on the children are wholesome.

MR. CLARK: The Executive Committee having invited Professor Cook to give this address before the convention, I feel that it should give him a bouquet of thanks. I desire to say that I have appreciated his address very much, and I am glad that we

shall have it in print to distribute to our people, who are becoming very much interested in this work as an educational force.

MR. JOHNSON: I understand that you have established here the municipal kindergarten. I presume that there are here private kindergartens conducted along the same lines, but without any connection with or direction by any authority. Do you find that there is any difference in the theory, general work, and result of their work as compared with that of the municipal kindergarten?

PROFESSOR COOK: I am glad you have asked that question. We have three styles of kindergartens—the stationary, the evolutionary, and the revolutionary; and most of these private kindergartens are revolutionary; they teach all sorts of absurd ideas that Froebel really never dreamed of, and that have nothing whatever to do with his system of education. The stationary kindergartens are those which do not vary in the slightest from what Froebel said. The evolutionary kindergartens are those which adhere to the spirit of Froebel, but adjust it to new conditions.

MR. ROSS: Has the effect been to reduce the number of private kindergartens.

PROFESSOR COOK: I may say that substantially there are no private kindergartens in St. Louis. There are a few charitable institutions which may be called private kindergartens, but they are not up to the standard.

#### MANUAL TRAINING VERSUS TRADE SCHOOLS.

While many schools of engineering in England and America had incorporated more or less shop work into their curricula before 1880; and while in numerous instances in Europe and America manual labor had been characteristic of school experiments, a manual training school, properly so-called, was not organized till September, 1880, when the St. Louis school was opened. Then, for the first time, in connection with a liberal course of study of secondary grade, a daily period in drawing and two daily periods in educational shop-work were incorporated. By "educational" I mean that the shop products had little or no intrinsic value compared with their value as educational agencies.

The history of this school is fairly well known. It has gone

smoothly on its way for twenty-one years, turning out every year from forty to fifty young men who, to a certain extent, embody the idea expressed by the motto, of a cultivated mind combined with a skillful hand. I shall not speak of the attacks made upon the theory and methods of the school, nor of the battles in its defense which have finally resulted in the defeat and capture of all assailants. There are now no enemies of manual training; we have now to deal only with questions which arise within our own ranks.

The last report of the commissioner of education gives a long list of manual training schools, properly so called, as well as a fairly full account of the cases in which elementary manual training for boys and domestic science for girls have been incorporated as regular features in more or less of the lower grades. The number of these schools is up in the thousands. In foreign lands our American ideas have taken root, and the catalogue of the manual training school of St. Louis has been in part translated into French, German, Italian, Spanish and Portuguese. Not a week passes but I get letters asking for advice from educational workers in far off lands. They have come from the Sandwich Islands, China and Australia; and I saw in Paris evidence that certain educational methods and models first analyzed and arranged in St. Louis had found their way into nearly all the Barbary States of Africa.

As Professor Henderson says, none of us in the beginning could have predicted so complete a triumph in so short a time. There is abundant reason to be grateful.

To-day I propose to address myself to the discussion of a single question, which has arisen in connection with tool instruction. The question is this: Shall the average school boy, who is fourteen or fifteen years of age, receive, during two hours each day, a broad range of culture in a variety of shops intended to teach the theory and art of tool work upon woods and metals? Or shall he devote one-half of each day (*i. e.* four or five hours) to actually learning a single trade in a commercial shop, with the definite idea of becoming a journeyman mechanic when he leaves the school?

It will simplify the discussion somewhat to say in the very beginning that the first method is the method of nearly every manual training school with which I am acquainted; and that the second method is the method which is earnestly advocated by persons of long experience and wide observation, who are deeply

interested in the subject of the education of American youth, prominent among whom stands Mr. M. P. Higgins, for many years shop superintendent and instructor in the Polytechnic Institute, of Worcester, Mass. Mr. Higgins has elaborated his plan for what he calls "half-time schools," which, in brief, is to devote one-half of each day to academic work in language, science and drawing, and the other half to the actual learning of a trade as apprentices in commercial machine shops.

The preliminary report of a committee of The Society for the Promotion of Engineering Education explains Mr. Higgins's plan as follows:

"Well-equipped and officered industrial works, as for instance, large machine-tool or engine works, joined to a good technical school, could (Mr. Higgins thinks) be made to pay a very large proportion, if not all the shop expenses. In such a school the boys would spend half the day in school and the other half in the shop. They would pay little or no tuition, but they would receive nothing for their work. The school would be divided into two sections, and these would alternate in school and shop work. A sufficient number of expert machinists would be regularly employed to oversee the shop work of the boys and to impart the shop instruction, while the theoretical or school work would be given to both forenoon and afternoon sections by another set of technical instructors. In this way very nearly actual shop conditions could be introduced and the advantages of the old apprenticeship system would be retained in addition to the further benefit of a regular school training."

We are all inclined to favor "the bridge that carried us over." Mr. Higgins is a "practical" man, familiar with apprentices and productive machine shops; he grew up in their atmosphere. Even in the Worcester Polytechnic shops he maintained the commercial feature of actual production. He has very little faith in the practical value of educational manual training. As schools for the training of future mechanics he regards manual training schools as failures. He notes that their students and those from the mechanical colleges established by national appropriations "have largely developed into civil, mechanical, and electrical engineers," and hence the institutions "have not fulfilled the hopes of the founders."

Mr. Higgins has written at large on these matters, and his views and suggestions are entitled to careful consideration. Three points present themselves, which I shall consider in order:

1. When and how shall a boy make a wise choice of an occupation?
2. To what extent does "manual training" as gained in high schools and academies open the doors into the trades?
3. Why are so few "manual graduates" enrolled as mechanics? Does the small number indicate any failure or disappointed hope?

1. The choice of an occupation is a very important matter. The theory of the ordinary manual training school assumes that the boy of fourteen or fifteen is unprepared to make a choice; first, because he does not know himself, his mental and physical possibilities; again, because he does not know what the different trades involve; finally, he does not know what other avenues of employment or occupation there are which would naturally compete in his mind with the mechanical trades.

On the other hand, Mr. Higgins assumes that the boy who is just leaving the grammar school, makes, or can make with the assistants of his parents and friends, a deliberate choice of an occupation, and that he can enter upon the pursuit of it with confidence.

Years ago, way back in the 70's, a Mr. Ruggles, of Boston, proposed to organize what he called a Developing School for the youth of Boston. This was to be a school with certain academic features as its central point, and around it a series of practical commercial shops, each one of which involved the principles and practice of some trade. The exact number of the shops was of course not defined, but the number was supposed to be large enough to cover all reasonable demands from the community. Mr. Ruggle's plan was this: To admit a fourteen-year-old boy to this school, and during his first year have him spend a few weeks in each one of the shops in order that he might sample the work, as it were, and find out which one was to his taste. At the end of a year he was to make a deliberate and final choice, and spend the rest of his shop time while in school in gaining a thorough mastery of all the details of the trade he had chosen.

This plan was fully explained in a very interesting pamphlet supported by a large number of opinions from eminent men as to the necessity of some sort of opportunity for a boy to acquire a knowledge of the mechanic arts. It is hardly necessary to say that this plan came to nothing. In the first place the enormous extent and cost of such an establishment, which should properly

cover the variety of occupations of a modern city, put the matter beyond all question.

In 1885 I visited the Trade School on the Boulevard de la Villette, in Paris. There I found in miniature, Mr. Ruggle's idea realized. The boys entered at thirteen or fourteen; one year was spent in sampling the shops, and two in learning a trade. To be sure the number of practical shops was not more than four or five, and those shops were not so much intended to teach trades, as we use the term in this country, as they were intended to teach the actual construction of certain lines of goods. For instance, one of the shops was a place where the boys learned to make locks for doors, drawers and safes. Of course there was quite a variety of locks manufactured, but every boy in that shop did nothing but make locks, and the drafting he learned (which was a minimum) concerned itself almost wholly with the detailed drawings of the parts of a lock. Another shop was very much like a machine shop doing a small range of work, but with a very thorough course of instruction and training in the work they did; another was a forging shop, where each boy who selected that department became a practical blacksmith. The woodworking shop was not so much for general culture as it was for learning the manufacture of certain articles of household or office furniture.

I noticed, by the way, that the boys were fairly distributed through all these shops. This by no means indicated, as I thought, that the natural bent and fancy of the boys had led to this result, but that under the advice of the management this result had been brought about in a perfectly natural and business like way, with a minimum of judgment on the part of a boy and a maximum of shrewd advice on the part of the director. I remember asking the director what he did with a boy who found out that he was not well suited to any of the trades which they taught, and finally discovered or thought he discovered, that he was cut out for something else and not for a locksmith, or a blacksmith, or a machinist. He turned upon me with a very impatient air and said with some little feeling, "These boys are here to learn a trade, and they do learn a trade, and the moment they leave this school they go to work at the trade. There are no exceptions to this rule. Every boy must earn his own living, and there is no other course for him to pursue."

As to the academic work done in that school, it was of a very meagre and inadequate sort. It was evident that the moment a

boy had made his choice, his academic work was trimmed down to just what were supposed to be the "essentials" for the trade which he had chosen. In fact it seemed as if all other doors were shut the moment he entered a shop the second year, and his destiny was sealed.

I came back to St. Louis entirely satisfied with the plan of our school, in so far as it left the student free to make his choice of occupation at a later period when all the presumptions would be in favor of a correct choice. Our prospectus states among the objects for which the St. Louis Manual Training School was organized, this: "The school is to serve as a developing school where pupils can discover their inborn capacities and aptitudes, whether in the direction of literature, science, engineering, or the practical arts."

In point of fact I suppose it to be true that so far as a majority of our patrons go, the controlling motive in sending boys to the Manual Training School is to find out what is in them, what their innate capacities and inherited tastes really are. Parents have come to me continually complaining that their boys will not decide what they want to do in life. Again and again, have I heard boys in the presence of their parents insist that they do not know what they would like to do; that they cannot make up their minds. This sort of answer very frequently irritates a parent, and it has been my privilege to read the parents a very pointed lecture, on the spur of the moment, showing them how utterly unreasonable and illogical they are; and I have commended the boy for persisting in his attitude of unwillingness to decide whether he wishes to be an electrical engineer, or a chemist, or an architect, or lawyer, for the simple reason that he is utterly unprepared to make such a decision.

To be sure I know parents are delighted often to find that their boy has a decided preference for a certain occupation. I know a little fellow of thirteen or fourteen years of age who for some years has insisted upon it that he is going to be a lawyer, and his parents have been perfectly delighted with his choice and are doing their very best to steer him into the legal profession, omitting everything in his education which does not seem to be necessary to a lawyer. Of course I think the parents are very foolish, and possibly they may regret it. There is one chance in a hundred that his intellectual characteristics fit him for the law; that no matter how thoroughly all his brain areas are developed he will find his natural bias for the legal profession; but chances

are decidedly against it. The whims and fancies of a boy are as inevitable and as natural as is his appetite for play and his fondness for sweetmeats, but they depend very largely upon his environment, upon what he sees and hears, and the opportunities that seem to be open to his boyish gaze. However, they are all surface indications, and have very little to do with natural or inherited aptitudes.

"I wish you would take William and give him a thorough course of training in this school. I wish to find out if he has any mechanical aptitudes. He has never shown any and I am doubtful of his having any, but I wish to find out for certain." That is what a father said to me one day as he brought his little son of about fifteen years to my office in the Manual Training School. I did not ask William what he wanted to be, but I put him at work in the regular course of study and training in the school. He took all the science, all the mathematics, the Latin and English, the drawing and the tool work, from joinery in the first part of the first year to machine shop practice during his third year. He came out a good scholar, a good draftsman, an expert and efficient workman in whatever he undertook. He went on through the school of engineering and he is now a very successful manager of a large mining establishment, having supervision over all the departments, whether financial, mechanical, or metallurgical. I need only add that the development was very satisfactory to the father, and withal was much of a surprise to both father and son.

In regard to this matter of boyish fancies I find myself exactly in agreement with Professor C. Hanford Henderson, who was for years Principal of the North East Manual Training High School of Philadelphia, but who recently resigned to devote himself to philosophical subjects along the lines of literature and pedagogy.

Professor Henderson protests vigorously against all attempts to rob a boy of fourteen of his freedom of choice. He says: "At fourteen a boy is too young to interrupt the culture process, much too young to know what will be the true occupation of his adult life. I have seen—and who indeed has not?—the very sad effects of this too early specialization. A boy of fourteen is full of fancies, and it is perfectly right and wholesome that he should be. The harm comes when those fancies are taken too seriously. Let them occupy his leisure time. Let him run the whole scale of boyish interests, let him be the naturalist, surveyor, mechanic, electrician, astronomer, artist, musician, poet, philosopher. Let

him go in for them heart and soul, and then, quite as light-heartedly, let him drop them. You make a sad mess of it when you hold a boy to an outgrown interest."

This testimony of Professor Henderson recalls what I myself said in a paper which I presented to the Society for the Promotion of Engineering Education in 1897: "The fancy of a boy, as regards his future occupation, may, and probably will, change with every year of school training; but that should excite neither rebuke nor criticism. The boy that starts with the hope of being an electrician and comes out with an ambition to be a lawyer, is not to be called fickle; and he that begins with the firm purpose of being a machinist, but graduates with the deliberate aim of being an architect, has probably replaced a groundless whim by an intelligent choice. Give a boy manual training, by all means; not because you wish or hope that he may become an artisan, but because you want him to be a whole man and to have an opportunity to make the most of himself, whether he become in the end an artisan or an artist, a follower or a leader, a bookkeeper or a general manager, an engine driver or an engineer, a farmer or a manufacturer."

Now, as I understand Mr. Higgin's proposition, it is to organize his half-time school out of pupils who have already decided to become machinists. They are of course young boys, but they have made the decision and Mr. Higgins would hold them to it through thick and through thin. He considers the machinist's trade as the one trade for young Americans to learn, and apparently he would ignore in his arrangement all other trades. Undoubtedly there is need every year of a certain number of new machinists in every community, numbers which we are not getting at present, unless they are imported; but I do not think any community would sustain for any great length of time a school of any magnitude all of whose graduates were journeyman machinists. It would soon be seen that there was a lack of balance in the system. The school would certainly arouse, if not a bitter feeling of opposition, at any rate a feeling that it was exceedingly unwise to foster a single trade and neglect all others. Such a scheme might work very well in an European community where the boy inherits his trade about as surely as he inherits his name. In such a community there is no question as to what a boy is to learn to do, and what he is to continue to do when he learns it; but in this country it is absolutely contrary to the whole genius of our institutions to shut a boy out by a one-sided, narrow, and

imperfect education from any honorable occupation. I have sometimes used the figure of open windows and open doors. I have said that the manual training school has many windows through which all of the great professional and industrial fields may shine in upon the students, and where the student may look out upon all the activities of modern American life; and the school has many doors through one of which the graduate may step out into the field of his final and deliberate choice.

A trade school may be a great success in a large city like New York, with a constituency that comes a thousand miles for its graduates, along various lines, because it cannot more than satisfy the legitimate demand; but in a city like St. Louis the school must be one of generous and broad culture, and the graduates must leave its doors with no other restraint than that which they find in themselves and in the opportunities which present themselves through their families and friends.

Here is the way in which Mr. Higgins calls upon a fourteen-year old boy to make a choice, and his parents accept his judgment. "John is fourteen years old; he has completed the grammar school. If he enters the high school, it means four years more." This is often a very important question. The mother sees that, if John goes to work with a doubtful chance of learning thoroughly any trade, he practically shuts the door against future liberal education and culture. The father is earnest and willing to sacrifice heroically, so that John can go on for four years in the high school, although he does not know what the four years more in school will do for him; and so, in his perplexity he says, "Yes, John, we can get on, I think, for four years in the high school. You will then be a strong man of eighteen. What will you do then? It must be admitted that the answer to this question is not a simple one, although it is a very important one. Now imagine that John is able to say, "Father, the problem is solved. The 'half-time' school is now open. In it, I will become a skillful machinist, able to earn more than a living immediately upon graduation, and I will also have all the benefits of a high school education at the same time.

My intense sympathy for "John" makes this picture almost pathetic. If the "high school" referred to by the father is a manual training high school, I think John makes a mistake, which will effectually block his future progress. Mr. Higgins says that every boy "should find his career entirely open at the top," and yet, as it seems to me, he closes the elevator door and locks it.

Of course John's mother is right in thinking that if John stops school altogether all hope of "future liberal education and culture" is gone. The "half-time" school is better than no school—there is no question on that point. Neither am I comparing the half-time plan with the ordinary literary high school; I find myself unable to thoroughly endorse either for the general uses of the community. I am comparing the half-time trade school with the typical manual training school.

The records show that the latter school does leave a boy's career open at the top, but I am confident that a boy who spends half of working man's day in a shop would find it quite contrary to nature to do a full school day's work during the other half. A healthy boy must have hours for private study, open-air exercise and play. If due allowance were made for John's health and pleasure, he would learn his trade, but he would find his progress in mathematics, science, language and drafting very slow. The odds are many to one that he would settle down to his trade and abandon his ambition for a career.

Instead of sending John to a half-time school with a commercial shop, suppose you let me send him at fourteen to a manual training school. He now has his three recitations daily, (mathematics, language, science,) his period of drawing, and his double period of tool-work. There remain over three hours of the day, and his evening for study, recreation and play.

With this program, he will easily prepare for the engineering school at eighteen, as hundreds and thousands of boys have already done; and the chance of his completing the preparation are ten times as great as they would be under the half-time plan.

2. Mr. Higgins attaches great importance to John's ability to earn full journeyman's wages at the end of his four years of apprenticeship. John can at once begin to save money, and this saving constitutes his main reliance for a higher education. On the other hand Mr. Higgins seems to think the boy who has had mere manual training is incapable of earning a living, much less of saving. This is a question of fact, and statistics and testimony are in order. Facts and figures vary greatly according to circumstances, and trustworthy information is hard to get, but I am surprised at the wages the graduates of our three-years course are able to command. Our St. Louis experience covers a longer period than any other, but we shall be glad to hear on the matter of wages from Chicago, Philadelphia, Baltimore, Toledo, Boston,

Kansas City, Denver, Louisville, Cleveland, New York, and elsewhere.

My graduates earn from \$30.00 to \$75.00 per month by the end of a year, and we are not able to graduate boys fast enough to meet local demand. They are wanted for draftsmen, electrical workers, inspectors, apprentices and clerks. Their versatility makes them valuable as assistants to superintendents and general foremen. Letters of application usually say "We have had one (or more) of your graduates and we would like one (or more) of the same sort."

I have not sought information in regard to wages of late years, for the reason that in St. Louis the pecuniary value of our graduates is well established. One third of our graduates go on into higher education, either immediately or after working a year or two. The following extract from a letter written by the Master Mechanic of the Missouri Pacific shops in this city is pertinent here. The letter is addressed to me and is dated, St. Louis, May 21, 1901.

"When a manual training school boy enters our shops he is paid \$1.50 per day; all other boys, or those not having what is called a manual training school education, are paid \$1.00 a day. Each year after the first we add 25 cents per day to the pay of these boys, and when they become proficient, or at the end of the third year, they receive very nearly the full rate; provided they are the right kind of boys. Were it possible *I would in all cases prefer employing graduates from manual training schools for apprentices to ordinary boys* who apply to us with perhaps nothing more than a very ordinary public school education, but, of course it is not always possible to act on these lines.

"There have been cases where young men, graduates from training schools, have come into our shops and have actually been worth more money to us than we were paying them, but in accordance with rules established long ago in regard to apprentices, we could not give them higher wages.

"I can confidently state that most of the graduates who have come to me from the Manual Training School of the Washington University have proven to be exceptionally good boys and have turned out good men. In fact, *most of them do so well that they are often offered better situations* and they leave us to accept the same because we cannot afford to pay the wages they can command from other sources."

It must be remembered that our boys have equal knowledge and skill with wood-working, forging, and machine tools, and with drawing instruments, so that those who want work scatter according to taste and opportunity in all directions. I maintain a regular bureau of information, where boys wanting work may apply, and where employers may send for "another graduate."

I am not discussing the feasibility of the "half-time" plan—that is a serious matter which I leave to its advocates. I am concerned just now in showing that to a boy whose parents are not able to give him more than a secondary education, and who consequently must begin to "pay his way" when he is eighteen or nineteen years old, the manual training school offers an equally good if not a better plan than the half-time school; and that it far more effectually keeps his "career open at the top."

3. The apparent failure of the graduates of manual training schools to become and remain mechanics.

The most interesting and valuable part of the annual catalogue of the Manual Training School of this city is the Record of the Alumni. This record is carefully kept, revised and republished every year. Our last issue contains a list of 818 graduates. The first class graduated in June, 1883; hence, the oldest have been out of school eighteen years. As you will see they are old enough to be recognized among the active men of affairs of the present day. The youngest are just out, but I submit that Record for your careful inspection.\* I regret that I am not able to give information in regard to every one of these men; but such information as I do give may be relied on as substantially correct, or it was correct when the catalogue was published.

The careers of these young men illustrate better than anything else the fruit of manual training. You will find, if you look over the list, as Dr. Wm. T. Harris once jokingly said, that there is an "alarming tendency on the part of these graduates not to become mechanics." That was a mere jest, but I suspect that in the beginning the very general expectation was that most of our boys would become mechanics, and there are not a few people to-day who have this feeling in regard to the matter. In so far as the graduates do not become mechanics, they regard the *school* as a failure, and in so far as the graduates do become mechanics, they regard the *boys* as a failure. You know there are in the world plenty of pessimists who are never so happy as when they are made unhappy by failure of some sort.

\*See Catalog of 1901.

For the sake of reference and comparison I here submit a careful annals and summary of the occupations of our 818 graduates:

OCCUPATIONS OF THE GRADUATES OF THE ST. LOUIS MANUAL TRAINING SCHOOL.

Architects .....	19
Artists .....	5
Bankers and brokers .....	4
Clerks and bookkeepers .....	118
Draftsmen .....	82
Engineers and chemists .....	82
Insurance and real estate .....	21
Lawyers .....	24
Machinists .....	35
Manufacturers and contractors .....	21
Merchants .....	15
Physicians, dentists, and pharmacists .....	22
Practical electricians .....	12
Presidents and general managers .....	32
Other officers of companies .....	53
Salesmen .....	54
Stock, fruit and farming .....	13
Students in higher education .....	65
Superintendents and foremen .....	43
Teachers .....	34
Miscellaneous (including 1 clergyman, 2 army officers and 1 naval officer) .....	13
Dead .....	36
Unknown .....	32

Several engineers with degrees are counted twice.

A few years since an eastern critic predicted that the graduates of the Philadelphia manual training schools would become a "degraded mass of operatives." At that time the schools had not graduated a class, but such was his cheerful prediction. A recent letter from Professor Marburg shows that out of 1,063 graduates of the two manual training high schools of Philadelphia 310 or almost 30 per cent have entered college, about one-half of whom have entered the University of Pennsylvania and Drexel Institute as students of engineering and architecture, and that Philadelphia is gradually being supplied with a class of well-trained technical men who started in the manual training schools. There is no question to-day as to the high standing which those men are taking in that community. As to "degraded operatives," there is not one; there are, however, skilled mechanics;

three carpenters, three plumbers, five engravers, and fourteen machinists. So the evil prediction failed.

Again, it was expected in the beginning that in cities where both schools were free, the manual training school would be largely patronized by the working people; that the sons of mechanics would naturally seek the manual rather than the literary high school; but such was not the case. It was found that a majority of the boys came from the homes of merchants, manufacturers, and professional people. It is unfortunately true that a mechanic who spent from four to seven years learning a trade is well imbued with the notion that his way is the only way in which a boy may become a mechanic, and consequently he has no faith in a school which devotes only from eight to ten hours a week to tool practice, and where the fundamental processes of the forge are learned in thirty weeks, and where machine shop practice covers only about thirty-eight weeks, with less than ten hours a week. Every mechanic is incredulous when told by a graduate of the school who happens to be at work in a shop that he got all he knows about tool-work in the manual training school. To the mind of an ordinary mechanic the proficiency shown is altogether out of proportion to the time spent, and there must be some other explanation.

This feeling on the part of mechanics explains in part why so few sons of working people entered the school at first; and that in turn partly explains why so few became mechanics when the course of the school was finished. However, a better understanding of the practical value of manual training is gradually removing the prejudice. Last September I asked a boy what led his father to send him to my school (which by the way is not a free school, as are manual training high schools.) He replied that his father was a machinist, and that he had noticed that a graduate of the school working in his shop got more pay and was advanced more rapidly than other boys of the same age. The boy's skill was evidence enough that the manual training school was worth while. So he resolved that his boy should get the benefit of it.

A second reason for the small number of mechanics among the graduate has already been hinted at in the observed tendency of laboring people to shun the school from a vague sort of suspicion that the school was intended to teach manual labor and to keep boys at manual labor, no matter how much a hard working father might wish his boy to have an easier or a more genteel

lot in life than he had had himself. This reason was potent while the school was new and its educational value was in doubt. It is not very strong now, and it grows weaker every year.

The third reason is the chief one and it removes all doubt and answers all queries. A fair and reasonable proportion of our boys after graduation do turn to industrial establishments for practical work in some capacity. They find a great deal of work out of the ordinary line, which pays fair wages and has more promise for the future than regular apprenticeship. Again the number who have actually taken terms of apprenticeship is much greater than the number of those now rated as "mechanics," for the reason that they have accepted higher positions and better pay. Nearly all those who are reported as general foremen and superintendents took more or less apprenticeship before promotion.

So long as the number of manual graduates is small, just so rapidly will the boys win promotion. Were the number of graduates turned out each year twenty times as great as it is, the number who would become and remain mechanics would be fifty times as great as it is. In other words by multiplying manual training schools, we shall solve the problem of training all the mechanics our industries need, and at the same time we shall keep the way open to higher things for the rare and gifted ones who, like Hercules, "will find a way or make one." \*

"Yet there is a place, and a very important one, for the trade school, and it will be a long time before we outgrow the need of it. There is in every city a large army of young men, from eighteen to twenty years old, who have never received a secondary education; who have no business positions open to them; who, as 'hands' in different establishments, earn the wages of unskilled workers, but who would gladly learn trades. They are, as a rule, too old for the full course of study in the manual training school. For them the 'half-time trade school' may be almost a necessity, and in meeting that necessity the school will have sufficient justification." As for the 14-year-old boy, let him go to the manual training school.

Permit me, in closing, to say a word as to the danger of too much education. Ever since Alexander Pope proclaimed that "A little learning is a dangerous thing," people have insisted that certain very necessary occupations are incompatible with education, and that we must be careful not to educate too much.

\* "Inveniam viam aut faciam."

Well, suppose your educated boy does step to a plane that is intellectually and socially higher, is there any cause for regret, or should there be a sense of failure? Suppose the boy is your son or brother, do you still regret? Or do you regret such results only when the boy is the son or brother of an uneducated day laborer? In my judgment, no one can ever be hurt by thorough, well-balanced education and training. Plenty of people suffer from ignorance and lack of education. If education ever makes a man foolish and helpless, it is because his education has been unbalanced; because he has been fed on prejudices, traditions, and conventionalities; not because he has learned how to apply his knowledge to the problems and duties of real life. If you make a boy believe and feel that it is not genteel to take a tool in his hand, he will not become a farmer or a mechanic. If, on the other hand, you teach him that the skilled hand is an honor and a fit companion to the cultured mind, he will cheerfully become an artisan, and he will remain one just as long as the world will let him. The world will load him with responsibilities according to its needs and his ability, and if, in the end, he becomes a superintendent or a general manager, it will be because he is in demand as such. The only people that will block his path and depreciate his abilities are those ill-taught individuals who try to believe that unskilled hands and an ignorance of practical arts are the best evidence of refinement and culture.

CALVIN MILTON WOODWARD,

Washington University, St. Louis, May 23, 1901.

### ICARIAN COLONY.

It was thought desirable to give a larger space to the economic phase of this colony, but it was found that the records were too meager, especially as five years had intervened between its dissolution and the present time. The colony site was visited personally, and the statements which follow this introductory were verified through the kindness of E. F. Bettanier, the sole local survivor, and to whom the Bureau is indebted for numerous courtesies.

#### ICARIAN COLONY.

BY ADAMS COUNTY UNION-REPUBLICAN, DEC. 22, 1898.

Few sociological experiments have attracted more attention

to scholars and writers than the Icarian community at *Corning*, Adams county, Iowa.

But singular to say, the people of the county not the state were not much interested.

In 1898 the district court appointed a receiver to wind up the affairs of this community, which had existed for a generation, and now it is one of the things of the past.

Fifty years since, Etienne Cabet stirred France with his doctrines. The government was very unfriendly to such ideas, but nevertheless he succeeded in starting a movement that became almost national in its scope, but was finally forced to leave France and come to America to perfect practically his plans.

His representatives first located in Texas, then came farther north, purchased the old Mormon site in Nauvoo in Illinois, March 15, 1849, and here 2,000 of the Cabet people settled, owning everything in common, but submitted to the most rigorous absolutism by Cabet; they evidently prospered for a time, but 1,500 dissensions arose and the colony divided, Cabet and his followers withdrew and located near St. Louis and maintained their old system, but their experiment soon came to an end.

Previous to this division the Nauvoo colony had become convinced that it would be advisable to move farther west and so keep away from the influences of individualistic civilization, and in 1853 they purchased 4,000 acres in Adams county, near *Corning*, in Iowa, and to this spot the other division of the Nauvoo colony removed. The first case on the court docket of Adams county is their record.

The community grew and prospered for a time, but at last met with some financial reverses and a mortgage on the land was given to William Shepherd of St. Louis, who later, 1859, deeded back to the community clear 2,000 acres of the land; prior to this, however, a proposition had been made to move still farther west, and California was advocated, but met with defeat in the great council by the majority of only one vote.

After this a period of great prosperity was enjoyed and the small colony seemed destined to achieve great success; but the surrounding country being rapidly settled, the newcomers brought with them their individual ideas of private property holdings, and this influence had quite an effect on the rising young generation of Icarians, and who began to withdraw in numbers to enjoy a larger measure of individual freedom in all business matters.

This continual and constant drain of the young blood was a severe strain; it has been generally acknowledged that these were people of the greatest intelligence, of industry and thrift, fully acquainted with agricultural arts, and who introduced grape culture into Iowa, following the French method, and the beautiful vineyards in this section of Iowa stand as a memorial to the Icarian colony.

The golden rule was the fundamental principle of Etienne Cabet's theory, and he aimed to practically apply the teachings of Jesus to the everyday transactions of business. Everything was owned in common and the productions of the community were held by the community for common and general use, and they ate from one table like the Spartans of old.

But the influence of the surroundings was too strong for the altruistic spirit prevailing for elimination at one single bound or in one generation, and in 1886 a division of the community was agreed to, and after this there was the New Icaria and the old Icaria. In a year or so the old community disbanded and divided its property among the members.

The new community continued for a number of years, flourishing hopefully at times, but in the end the same disintegrating influences affected it as they had done before, and finally, Feb. 16, 1895, Mr. E. F. Bettanier was named by the district court as receiver on application of the disputants, and in the course of three or four years he closed up its affairs, and in October, 1898, he was discharged by the court, having shown that he had faithfully discharged his great trust and made proper disposal of the property of the community.

#### ADAMS COUNTY FREE PRESS.

Cabet died in 1855 at St. Louis. Icaria was incorporated under the laws of Iowa in 1876. The liabilities were \$4,000 and the assets \$60,000. In 1879 there were eighty-five persons, and this was the time of the second division, some going to California. Since 1879 Mr. E. F. Bettanier has been the president.

At one time an organ was published by them called *La Revue Icarien*, and many industries flourished. The following is a few of the excerpts from their constitution:

It is established in the interest of entire humanity, in devotion to its well being, in order to present to it a system of society capable of rendering it happy and to prove by experience that communism based upon complete solidarity is realizable and possible.

A common fund supplied the wants of all and a common treasury received the earnings and savings of all.

Executive power was vested in a committee of three trustees, selected from a general assembly composed of all members over twenty-one years of age, without respect to sex.

Admission was gained by an applicant putting all his possessions into the common fund and conforming to the constitution.

Withdrawals were possible by giving one month's notice. The assembly took into consideration the services that he or she had rendered and bestowed upon them two-thirds of the amount originally invested and a reasonable amount for services while a member.

The greatest freedom was tolerated in regard to religious tenets a member held so long as they subscribed to the golden rule. About \$36,000 in cash and 1,000 acres of land were divided between the members.

Cabet was a contemporary and co-worker with Proudhon, the great French essayist, agitator and historian, and together they contributed much towards stirring France in behalf of the poor and oppressed in that land during the exciting days of 1848.

It is reputed that there was at that time over 400,000 Icarians. Cabet held that the practicability of his theory was only possible after long years of study and preparation, but, challenged on all sides to prove the practicability of his theory, he resolved to silence his adversaries by the establishment of a vast experimental colony, and on February 3, 1848, sailed from Havre for Texas, where a large grant of land had been secured. Nineteen followed on the 3d of the following June, but becoming discouraged with hard pioneer work, and unaccustomed to the severe heat and afflicted with malaria, they were on the point of returning from New Orleans, when Cabet landed with 400 more. It was then decided to go on to the deserted Mormon Nauvoo, reaching there on March 15, 1849.

Cabet lacked the ability to direct, although a profound philosopher.

They manufactured some wine every year, although they were a strictly temperate people and never drank to excess, were well educated in French and English, and possessed the politeness of their race.

## FREE EMPLOYMENT OFFICES.

The following review of the free employment offices shows some very interesting comparisons:

Ohio: *Estimated* amount which would have been paid to agencies by applicants during annual period, \$20,132; deduct cost of maintenance of "free office," \$5,000. A net saving to the working people of the state \$15,132.

The above estimate is based on the fee of \$1 and is believed to be below the real cost. In this connection it is proper to show that the state of Washington reports an average cost of each position secured by the state employment office at Seattle: 1894, 22, 93 cents; 1895, 19, 38 cents; 1896, 21, 38 cents; 1897, 6, 24 cents; 1898, 5, 64 cents; 1899, 4, 98 cents.

One particular divergence between Ohio and Illinois is noticed: Ohio compels the cities themselves who by the operations of the law have free employment bureaus to pay for their maintenance, whereas in Illinois their maintenance is paid for by the state and there the service is materially helped and its efficiency increased by the co-operation of the factory inspectors, who can be made doubly useful by obtaining and furnishing information both as to help and employment wanted, a plan that could be advantageously adopted in our state.

Free employment bureaus, as conducted in many of our sister states, are not an experiment any longer, for they have proven their right to exist at the State's expense, and I believe I voice the opinion of not only the labor organizations but the general opinion of the wage-earners of the state, in advocating the establishment of free employment offices under the supervision of the labor commissioner, either on the Ohio or the Illinois plan.

This beneficent arrangement would prevent congestion of laborers in certain localities and do away with the scarcity in others. Farmers could in time of pressing work, such as harvest time, have access to this clearing house and idle men easily find employment.

The reasons for the establishment of free employment bureaus

are so obvious that as the urban population (which is now 43 per cent of the whole) increases their establishment will become an imperative necessity.

The free employment office is a product of Europe, France being the first nation to put the plan into operation. From Paris the movement spread all over Europe, extending into Germany, England, Russia and Bavaria, and reaching New Zealand and Australia.

The plan was brought to America by an official of Ohio, who, after an investigation of the Paris office, recommended the establishment of a free employment office in Ohio. By act of the general assembly, passed April 28, 1890, a law was enacted by which offices were established in the five largest cities in Ohio, viz., Cincinnati, Cleveland, Columbus, Dayton and Toledo. I have appended a copy of the Ohio law (pages 16 and 17). It is unnecessary for the purposes of this paper to go into the details of the annual reports of these various offices. I desire to make an historical statement of the movement in this country rather than an argument for or against it. Some figures, however, are necessary and interesting to show the scope and growth of the work.

The report of the Ohio bureau of labor statistics for the year 1890 gives the work of the different offices since their establishment. The first office was opened in Toledo, June 26, 1890, the last in Columbus on September 2d. The report for 1890 includes the work of these offices from June 26th to October 1st. During this short period there were 20,136 applications for positions, 18,154 applications for help, and 8,988 situations were secured for applicants. It is in the relation of these figures to each other that I find the most significance. The number of situations secured was 44.6 per cent. of the situations wanted, and 49.5 per cent. of the help wanted; the help wanted was 90.2 per cent. of the situations wanted. These figures show that employers and workmen were ready to seize the opportunities held out to them by the state and to free themselves from the exorbitant and often fraudulent charges of many of the private agencies.

Another interesting statement in this fourteenth annual report is the financial one:

Estimated amount which would have been paid to agencies by applicants during this period.....	\$20,132.00
Deduct cost of maintenance of offices.....	5,000.00
And there is shown a net saving of .....	15,132.00
to the working people of the state.	

Of course the first figure of \$20,132 is an estimated one, but the investigations made by different labor commissioners of the private agencies in their respective states show that a fee of \$1.00 is not a high average for applicants to pay for registering for employment. In addition to this registry fee, the private agency demands a per cent. of the first wages.

A test year of such work as the free employment offices hoped to do was 1893, a year of great business depression. In that year the figures are as follows:

Total number of situations wanted.....	26,854
Total number of help wanted.....	17,229
Total number of situations secured .....	15,201

The help wanted was 69.15 per cent. of the situations wanted, positions secured were 76.62 per cent. of help wanted, and positions secured were 49.16 per cent. of the situations wanted.

This would seem to indicate great activity on the part of the offices and hearty support and appreciation by the employers. In 1891 45.2 per cent of those applying for positions secured them. The figures of 1893 show an increase over these, but there is a slight decrease in the 1893 figures when compared with the year 1892. In that year 51.36 per cent of applicants for positions receiving them. The World's Fair is held by many to be responsible for this decrease.

The latest obtainable report of this bureau, that of 1900, gives the following figures:

Number of situations wanted.....	20,855
Number of help wanted.....	22,437
Number of situations secured .....	13,344

Help wanted was 93 per cent of situations wanted. Positions secured were 59 per cent of help wanted, and positions secured were 64 per cent of situations wanted.

Thus it is seen that the "Ohio experiment" as it has been called, has demonstrated the advantages to that state of the public administration of a free labor employment office for the use of her unemployed workmen.

The first state to follow the example of Ohio was Washington, an office being established in the city of Seattle in 1894. In that year 2,823 applicants secured positions through the office; in 1897, 8,736; in 1898, 21,948; in 1899 there was a slight decrease, the number being 20,070. In Washington the office places large numbers of hop-pickers, but their season is so short, and their

number so uncertain, a fact due to the variability of the crop, that this class of workmen is not included in the figures given.

In the Washington report there is also the interesting financial statement showing the cost to the state of each position secured. It is as follows:

1894 .....	22, 93 cents.
1895 .....	19, 38 cents.
1896 .....	21, 38 cents.
1897 .....	6, 24 cents.
1898 .....	5, 64 cents.
1899 .....	4, 98 cents.

The commissioner for Washington says he has made special endeavor to be of service to the skilled workmen, and he has been gratified by the marked increase in skilled help he has supplied. He does not, however, give figures classifying the workmen according to their trades.

He has also made investigations as to the satisfaction given to the employers by the help furnished through his office as compared with that furnished by the private agencies. The employers say the help furnished by the free employment office has been more satisfactory than that furnished by the pay agencies.

While the work of the Seattle office is contained in the report of the Commissioner of Labor for Washington yet the conduct of the office is under the control of the city, and is maintained by it.

From 1895 to 1897 the Commissioner of Labor of California maintained a free employment office without any special appropriation from the legislature, the funds be supplied by private subscription. At the end of that time the office was discontinued, the bill providing for such work failing to pass. In the Ninth Biennial Report of the Bureau of Labor Statistics of California, 1899-1900, the commissioner after a review of the results of the agency in 1895-1897, and a statement of the advantages and disadvantages of state control, concludes his report on the subject by recommending, not the establishment of a state office, but a close supervision of private ones and the enactment of certain laws in regard to fees, etc. He says further that not more than 10 per cent of the wage earners of the state are patrons of the employment agencies.

In the same year that the Commissioner of California was making his experiment, Montana established a free employment office. The law in Montana at first provided for the establish-

ment of such offices by the state only. It was in 1897 modified to provide for their establishment by municipalities also, if desired. So far I have been unable to find that any have been so established. The defect of the Montana law, a defect which has prevented the successful operation of the offices, is that the free employment office is located in the office of the Commissioner of Labor in the state capitol, a place not easily accessible to the unemployed; and further, reports indicate that the demand for employment is not so great in Helena as it is in other cities in the state. These facts sufficiently account for the small returns from the Montana office. Notwithstanding these unfortunate limitations the report for 1895, covering the work from April 1st to December 1st, shows that positions were secured to 46 per cent of those applying for employment. In 1896, 62 per cent of those applying were provided with work. I should infer from these figures that better location and better facilities would make the office of vast advantage to the workmen of Montana.

In his report for 1896 the Commissioner of Maryland says he made the experiment without any expense to the state. He does not give statistics but states that about 12½ per cent of the applicants were placed in positions of minor importance. He further states that he is convinced of the advisability of the establishment of a free employment office by the state.

The first work of this nature under state sanction was in 1900, beginning August 21st. During the remaining months of the year there were 124 applicants, of whom forty-six were referred to employers. The Commissioner for that year urges the better equipment of the office by state appropriation.

In New York the free employment office was established by an act of the general assembly in 1896. A noticeable feature of the law of New York is the requirement that the Commissioner shall mail weekly to the supervisors of every county in the state a list of all applicants for labor or help. The Commissioners of other states lament their inability to make known to the people of their states the applications filed. The New York Commissioner however, does not seem to think the method authorized by the state is the best one. He thinks newspaper advertising would bring better results.

An office was opened in New York city July 20th. During the five remaining months of 1896 there were 8,040 applications

for labor and 948 applications for help. Four hundred and forty-four situations were secured for applicants.

Help wanted was 11 per cent of situations wanted, positions secured were 46 per cent of help wanted, and positions secured were 5 per cent of the situations wanted.

In 1897 the law was repealed, and another substituted for it in which was omitted the requirement in regard to the weekly report to the county supervisors.

In the 1898 report it is shown that 39.6 per cent. of the persons applying for work in that year received it, as against 20 per cent. in 1897. The figures are given in more detail for the work of the next two years in the reports. For 1899 they are as follows:

Applicants for work .....	4,922
Applicants for help .....	2,982
Situations secured .....	2,292

For the year 1900 they are as follows:

Applicants for work .....	5,633
Applicants for help .....	3,505
Situations secured .....	2,899

These figures show a marked increase over the previous year, the per cent. of increase in situations secured being 26.

The last available New York reports show that New York is the only city in which the free employment office has been established, although under the law there could be one in Buffalo. The appropriation for the New York office is but \$5,000 a year.

In Nebraska a free employment office was opened May 1, 1897. No extra appropriation was made for two years. Owing to this lack of funds no branch office could be established in the large cities of the state, the work being confined to that which could be transacted in the office of the Commissioner at the capitol at Lincoln.

The feeling of the unemployed toward the office in Nebraska is clearly seen in the numbers of applicants who registered for work during the period from May 1, 1897, to December 31, 1898, that being the period covered by the Commissioner's first report. There were 1040 applicants. While there were but 218 of these who received positions, this is quite a saving to the state, since there was no outlay.

The Bureau of Labor in Nebraska makes biennial reports, hence the next report covers the work for the two years 1899-1900. The figures are as follows:

Applicants for positions .....	653
Applicants for help .....	15
Positions secured .....	181

Twenty-seven per cent. of those applying for work received it, as against 24 per cent. in the previous report.

In looking at these figures and comparing them with those of other states, the location of the office, and the fact that no appropriation is made for it must be borne in mind.

In Missouri the State Bureau of Labor opened a free employment department in St. Louis the first Monday in October, 1897. No appropriation was made for this office by the state, all expenses being paid out of the regular appropriation for the Bureau of Labor.

In the annual report for 1897 there is a statement of the work for the first month.

Applicants for positions .....	1,748
Applications for help .....	787
Positions secured .....	506

The number of male applicants far exceeded the female, the former being 1,511, the latter but 237. The female help desired was about 50 per cent. of the male help, the figures being 266 against 521.

In 1898 the St. Louis office shows:

Applicants for employment .....	4,849
Applicants for help .....	3,181
Situations secured .....	2,318

Nearly fifty per cent. of those applying received work.

In but four classes of labor was the demand greater than the supply, viz: factory workers, housework, miners, salespeople, and solicitors. There were 1,271 applicants for positions as office help while there were but 156 applications for such help. Boys seemed to be in demand, 140 of the 152 applicants receiving positions. It was the unskilled labor, the ordinary day laborer and the teamster, who applied in large numbers, and whose labor was not in demand, but about three per cent. of the applicants of this class receiving work.

In December, 1899, an office was established in Kansas City. The work of this office, from its opening to October 1, 1900, was much larger than that of the St. Louis office. The total figures for the two offices are as follows:

Applicants for positions, St. Louis .....	4,222
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Applicants for positions, Kansas City .....	7,311—11,533
Applicants for help, St. Louis .....	2,281
Applicants for help, Kansas City .....	5,243—7,524
Positions secured, St. Louis .....	1,928
Positions secured, Kansas City .....	4,278—6,186

It will be seen from these figures that there was a decrease in the work of the St. Louis office. There is nothing to show whether or not any of the applications were diverted from the St. Louis office to Kansas City.

In this year over fifty per cent. of the applicants received positions, the gain being about one per cent. over the previous year.

The Missouri law provides for the establishment of the Free Public Employment Office in all cities of 100,000 inhabitants. The commissioner in his last report recommends appropriations for the establishment of an office in St. Joseph.

Next to New York the state in which there would seem to be the largest demand for the Free Employment Office is Illinois, the second city in the United States being in that state. But it is not until 1899 that the legislature of Illinois passes a law establishing the free employment office. A copy of this law is attached, see pages 18-24. A comparison of the Ohio law of 1890 and the Illinois law of 1899 will show progress of the feeling towards the "Ohio experiment." It is no longer an experiment, and the state, instead of shifting the burden of the maintenance of the offices upon the cities in which they are located, provides for them out of state funds. Enlisting the services of the different inspectors of the state to aid in the placing of labor is an advantageous feature of this law. Illinois seems to have done all in her power to bring the demand for labor and the labor supply together. The results may be seen from the reports. These reports give the work of the offices in much greater detail than do the reports from other states, and since in no city can labor conditions be studied with greater advantage than in Chicago I will give in some detail the work of the Chicago offices.

Under the law three offices were established in Chicago in 1899, one on the West Side, one on the North, and one on the South Side. The report for 1900 gives the statistics for that year as follows:

Applicants for employment .....	37,285
Applications for help .....	39,866
Positions secured .....	35,542

87 73 per cent. of those applying received positions. Unskilled

workmen form the larger class of applicants. There were but sixty-one professional men and women applying and but sixteen secured positions. One minister applied and he was placed in some institution where he performed the duties of chaplain.

The statistics for the male department are as follows:

Manual labor includes three classes of workmen, according to the report, and the statistics are as follows:

Applicants for employment.....	5,758
Applicants for help.....	7,326
Positions secured.....	5,607

Trades, represented by eighty-two classes:

Applicants for positions.....	2,974
Applicants for help.....	1,262
Positions secured.....	1,042

Agriculture represents five classes:

Applicants for employment.....	962
Applicants for help.....	1,008
Positions secured.....	919

Farm hands:

Applications for positions.....	681
Applicants for help.....	757
Positions secured.....	675

Clerical, represented by seven classes:

Applicants for positions.....	320
Applicants for help.....	43
Positions secured.....	309

Commercial, represented by twenty-two classes:

Applicants for employment.....	1,922
Applicants for help.....	808
Positions secured.....	509

Domestic service, represented by twelve classes:

Applicants for employment.....	4,192
Applicants for help.....	3,335
Positions secured.....	3,193

Transportation, represented by seventeen classes:

Applications for employment.....	2,232
Applications for help.....	1,579
Positions secured.....	1,433

Miscellaneous, represented by twenty-eight classes, such as apprentices, bartenders, boys (bell, errand, etc.), factory hands, janitors, watchman, etc.

Applicants for employment.....	2,721
Applicants for help.....	1,370
Positions secured.....	1,277
Unclassified.....	1,287

The statistics for the female department are as follows:

Unclassified.....	999
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Clerical, represented by five classes:

Applicants for employment.....	188
Applicants for help.....	62
Positions secured.....	59

Commercial, represented by nine classes:

Applicants for employment.....	282
Applicants for help.....	137
Positions secured.....	106

Domestic service, represented by eighteen classes:

Applicants for employment.....	14,388
Applicants for help.....	17,321
Positions secured.....	13,983

Personal service, represented by three classes:

Applicants for employment.....	25
Applicants for help.....	1
Positions secured.....	1

Professional, represented by five classes:

Applications for employment.....	144
Applications for help.....	210
Positions secured.....	116

Miscellaneous, represented by seven classes:

Applicants for employment.....	389
Applicants for help.....	725
Positions secured.....	346

In the statistics for the male department the best showing is made in manual labor, 39.95 per cent of those applying receiving work; in the statistics for female department the domestic service has the best showing, 93.87 of those applying receiving work.

During the existence of the bureau, from its establishment August 2, 1899, to December 8, 1900, a period of seventy-one weeks, the statistics in general are as follows:

	Men.	Women.	Total.
Applicants for employment.....	34,491	22,454	56,945
Applicants for help.....	.....	.....	61,622
Positions secured.....	22,283	21,833	44,116

Seventy-seven per cent of those applying for employment received it.

In July of the present year an office was opened in Peoria. The work of that office from July 1st to September 14th is as follows:

Applications for employment .....	1,503
Applications for help .....	1,454
Positions secured .....	993

Connecticut established a free employment office in five of her cities this summer, but there is no available report of their work. An appropriation of \$23,100 was made for their maintenance.

Many commissioners are recommending to their legislatures the establishment of the free employment offices, feeling convinced after an examination of the working of the private agency that the state should come to the help of its unemployed in this way.

The feeling of the labor organizations toward the movement may be seen to some extent in a resolution which was read at the meeting of the Federation of Labor held at Louisville in December, 1900, from the Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America condemning the private employment agencies and recommending that steps be taken to suppress them.

A communication from J. K. Vicha, superintendent of the Cleveland, Ohio, Free Public Employment office, was also read. This letter rehearses the evils of the private pay agency and also the work done by the free offices in Ohio. He recommends that the Federation use all its influence toward the establishment of such agencies in other states.

Both these communications were referred to the committee on resolutions, which reported in favor of the free employment offices, and recommended their establishment, and the suppression of the private agencies.

It is impossible, of course, to tell how many of the unemployed who seek the aid of the free employment office would go to the pay agency if the former were not in existence. Undoubtedly all would not do so, for there are many who do not have the fee demanded, and these are the very ones whom the state should help. When the conditions become such that the free employment office is no longer needed, as the commissioner of California says is the

case in his state, then they may easily be discontinued, but in many states there is a large class of unemployed, and the most self respecting way in which the state can care for them is to procure employment for them.

AN ACT to amend Section 308 of the revised Statutes of Ohio.

SECTION 1. Be it enacted by the General Assembly of the State of Ohio, that section 308 of the revised statutes, be so amended as to read as follows:

SEC. 308. The commissioner shall have an office in the state house, which shall be a bureau of statistics of labor, and he shall collect, arrange and systematize all statistics relating to the various branches of labor in the state, and especially those relating to the commercial, industrial, social, educational and sanitary conditions of the laboring classes. Said commissioner is hereby authorized and directed, immediately after the passage of this act, to organize and establish in all cities of the first class, and cities of the first and second grade of the second class in the State of Ohio, a free public employment office, and shall appoint one superintendent for each of said offices to discharge the duties hereinafter set forth. Said superintendents shall cause to be posted in front of their said offices on a sign board, or in a suitable place on the building where such offices are located, the words, "Free public employment office." It shall be the duty of all such superintendents to receive all applications for labor of those desiring employment and those desiring to employ labor, and record their names in a book kept for that purpose, designating opposite the name of each applicant the character of employment, or labor desired, and the address of such applicant. Each of said superintendents shall be provided with such clerical assistance as in the judgment of the commissioner may appear necessary for properly conducting the duties of their several offices. No compensation or fee shall, directly or indirectly, be charged to or received from any person or persons seeking employment, or any person or persons desiring to employ labor through any of said offices. Said superintendents shall make a weekly report on Thursday of each week to said commissioner of all persons desiring to employ labor, and the class thereof, and all persons applying for employment through their respective offices, and the character of employment desired by each applicant; also of all persons securing employment through their respective offices and the character thereof, received by him from the respective offices

aforsaid, and cause a true copy of such lists on Monday of each week to be mailed to the superintendent of each of said offices in the state, which said list by the superintendent shall be posted immediately on receipt thereof in a conspicuous place in his office, subject to the inspection of all persons desiring employment. Said superintendents shall perform such other duties in the collection of labor statistics as said commissioner shall determine. Any superintendent or clerk as herein provided, who directly or indirectly charges or receives any compensation from any person whomsoever in securing employment, or labor for any other person or persons as provided in this act, shall be deemed guilty of a misdemeanor, and be fined in any sum not exceeding fifty dollars, and imprisoned in the county jail or workhouse not exceeding thirty days. The superintendent of each of said offices shall receive a salary, to be fixed by the council of such city, payable monthly. The clerk or clerks required in any of such offices shall receive a salary of not more than fifty dollars per month, provided the compensation of such superintendents and clerks so appointed shall be paid out of the city treasury in which such free public employment office may be located.

SEC. 2. That said original section 308 of the Revised Statutes be and the same is hereby repealed.

SEC. 3. This act shall take effect and be in force from and after its passage.

Passed April, 28, 1890.

## LABOR LAWS OF THE STATE OF ILLINOIS.

### FREE EMPLOYMENT AGENCIES IN CERTAIN CITIES.

An Act to create free employment offices in cities of certain designated populations, and to provide for the maintenance, management and control of the same, and to prevent private imitations of the name of the same and regulating private employment agencies.

SECTION 1. Be it enacted by the people of the State of Illinois represented in the General Assembly: That free employment offices are hereby created as follows: One in each city of not less than fifty thousand population, and three in each city containing a population of one million or over, for the purpose of receiving applications of persons seeking employment, and applications of persons seeking to employ labor. Such offices

shall be designated and known as Illinois Free Employment Offices.

SEC. 2. Within sixty days after this act shall have been in force, the State Board of Commissioners of Labor shall recommend, and the Governor, with the advice and consent of the Senate, shall appoint a superintendant and assistant superintendant and a clerk for each of the offices created by section 1 of this act, and who shall devote their entire time to the duties of their respective offices. The assistant superintendant or clerk shall in each case be a woman. The tenure of such appointment shall be two years, unless sooner removed for cause. The salary of each superintendant shall be \$1,200 per annum, the salary of such assistant superintendant shall be \$900 per annum. The salary of such clerks shall be \$800 per annum, which sums, together with proper amounts for defraying the necessary costs of equipping and maintaining the respective offices, shall be paid out of any funds in the state treasury not otherwise appropriated.

SEC. 3. The superintendent of each such free employment office shall within sixty days after appointment, open an office in such locality as shall have been agreed upon between such superintendent and the secretary of the Bureau of Labor Statistics as being most appropriate for the purpose intended; such office to be provided with a sufficient number of rooms or apartments to enable him to provide, and he shall so provide, a separate room or apartment for the use of women registering for situations or help. Upon the outside of each such office in position and manner to secure the fullest public attention, shall be placed a sign which shall read in the English language, Illinois Free Employment Office, and the same shall appear either upon the outside windows or upon signs in such other languages as the location of each such office shall render advisable. The superintendent of each such free employment office shall receive and record in books kept for the purpose names of all persons applying for employment or help, designating opposite the name and address of each applicant the character of employment or help desired. Separate registers for applicants for employment shall be kept, showing the age, sex, nativity, trade or occupation of each applicant, the cause and duration of non-employment, whether married or single, the number of dependent children, together with such other facts as may be required by the bureau of labor statistics to be used by said bureau: Provided, that no such special statistics shall be open to public inspection at any

time, and that such statistical and sociological data as the bureau of labor may require shall be held in confidence by said bureau, and so published as not to reveal the identity of any one. And, provided, further, that any applicant who shall decline to furnish answers to the questions contained in special registers shall not thereby forfeit any rights to any employment the office might secure.

SEC. 4. Each such superintendent shall report on Thursday of each week to the State bureau of labor statistics the number of applications for positions and for help received during the preceding week; also those unfilled applications remaining on the books at the beginning of the week. Such lists shall not contain the names or addresses of any applicant, but shall show the number of situations desired and the number of persons wanted at each specified trade or occupation. It shall also show the number and character of the positions secured during the preceding week. Upon receipt of these lists, and not later than Saturday, of each week, the secretary of the said bureau of labor statistics shall cause to be printed a sheet showing separately and in combination the lists received from all such free employment offices; and he shall cause a sufficient number of such sheets to be printed to enable him to mail, and he shall so mail, on Saturday of each week, two of said sheets to each superintendent of a free employment office, one to be filed by said superintendent, and one to be conspicuously posted in each such office. A copy of each such sheet shall also be mailed on each Saturday by the secretary of the State bureau of labor statistics to each State inspector of factories and each State inspector of mines. And it is hereby made the duty of said factory inspectors and coal mine inspectors to do all they reasonably can to assist in securing situations for such applicants for work, and describe the character of work and cause of the scarcity of workmen, and to secure for the free employment offices the co-operation of the employers of labor in factories and mines. It shall be the duty of such factory inspectors and coal mine inspectors to immediately notify the superintendent of free employment offices of any and all vacancies or opportunities for employment offices of any and all vacancies or opportunities for employment that shall come to their notice.

SEC. 5. It shall be the duty of each superintendent of a free employment office to immediately put himself in communication with the principal manufacturers, merchants and other employers

of labor and to use all diligence in securing the co-operation of the said employers of labor, with the purposes and objects of said employment offices. To this end it shall be competent for such superintendents to advertise in the columns of daily newspapers for such situations as he has applicants to fill, and he may advertise in a general way for the co-operation of large contractors and employers in such trade journals special publications as reach such employers, whether such trade or special journals are published within the state of Illinois or not: Provided, that not more than four hundred dollars, or as much thereof as shall be necessary, shall be expended by the superintendent of any one such office for advertising any one year.

SEC. 6. It shall be the duty of each such superintendent to make report to the State bureau of labor statistics annually, not later than December first of each year, concerning the work of his office for the year ending October first of same year, together with a statement of the expenses of the same, including the charges of an interpreter when necessary, and such reports shall be published by the said bureau of labor statistics annually with its coal report. Each such superintendent shall also perform such other duties in the collection of statistics of labor as the secretary of the bureau of labor statistics may require.

SEC. 7. No fee or compensation shall be charged or received, directly or indirectly, from persons applying for employment or help, through said free employment offices; and any superintendent, assistant superintendent or clerk, who shall accept, directly or indirectly, any fee or compensation from any applicant, or from his or her representatives, shall be deemed guilty of a misdemeanor, and, upon conviction, shall be fined not less than \$25.00 nor more than \$50.00 dollars, and imprisoned in the county jail not more than thirty days.

SEC. 8. In no case shall the superintendent of any free employment office created by this act, furnish or cause to be furnished, workmen or other employes, to any applicant for help whose employes are at that time on strike, or locked out; nor shall any list of names and addresses of applicants for employment be shown to any employer whose employes are on strike or locked out; nor shall such list be exposed where it can be copied or used by an employer whose employes are on strike or locked out.

SEC. 9. The term "applicant for employment" as used in this act shall be construed to mean any person seeking work of any

awful character, and "applicant for help" shall mean any person or persons seeking help in any legitimate enterprise; and nothing in this act shall be construed to limit the meaning of the term "work to manual occupation, but it shall include professional service, and any and all other legitimate services.

SEC. 10. No person, firm or corporations in the cities, designated in section 1 of this act, shall open, operate or maintain a private employment agency for hire, or where a fee is charged to either applicants for employment or for help, without first having obtained a license from the secretary of state, which license shall be \$200 per annum, and who shall be required to give a bond to the people of the state of Illinois in the penal sum of \$1,000 for the faithful performance of the duties of private employment agent; and no such private agent shall print, publish, or paint on any sign, window, or newspaper publication, a name similar to that of the Illinois free employment offices. And any person, firm or corporation violating the provisions of this act, or any part thereof, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not less than \$50 nor more than \$100.

SEC. 11. Whenever, in the opinion of the board of commissioners of labor the superintendent of any free employment office is not duly diligent or energetic in the performance of his duties, they may summon such superintendent to appear before them and show cause why he should not be recommended to the governor for removal, and unless such cause is clearly shown the said board may so recommend. In the consideration of such case, an unexplained low percentage of positions secured to applicants for situations and help registered, lack of intelligent interest and application to the work, or a general inaptitude or inefficiency, shall be considered by said board a sufficient ground upon which to recommend a removal. And if, in the opinion of the governor, such lack of efficiency cannot be remedied by reproof and discipline, he shall remove as recommended by said board: *Provided*, that the governor may at any time remove any superintendent, assistant superintendent or clerk for cause.

SEC. 12. All such printing, blanks, blank books, stationery and postage as may be necessary for the proper conduct of the business of the offices herein created shall be furnished by the secretary of state upon requisition for the same made by the secretary of the Bureau of labor statistics.

Approved April 11, 1899. In force July 1, 1899.

## THE WORKING OF THE DEPARTMENT OF LABOR.\*

BY CARROLL D. WRIGHT.

### ORIGIN.

The Order of the Knights of St. Crispin was in a flourishing condition in Massachusetts in 1868 and 1869. In the latter year the order petitioned the legislature for an act of incorporation, but the petition was rejected. In the same year two petitions had been filed with the legislature, praying for a ten-hour law, but these petitions were indefinitely postponed. The rejection of the petition of the Knights of St. Crispin was probably the immediate turning point for the establishment of the Massachusetts Bureau of Statistics of Labor. It is generally believed that after the rejection of the petition fears were entertained by the leaders of the dominant party that the labor vote in the State might be alienated, and it was suggested by shrewd politicians that it might be politic to grant some concessions to the workmen. Whether this belief is based on fact or not, it is true that after the adverse action on the petitions of the order and of the ten-hour men a bill creating the bureau was suddenly introduced in the senate at a late day in the session. It was promptly rejected on the 12th day of June, but on the 14th the vote rejecting it was reconsidered and the bill passed under a suspension of the rules. It was amended slightly in the house of representatives and passed that body and received the governor's approval June 22, 1869. Thus was created by the act of the Massachusetts legislature the first office in the world whose function was the collection of information relating to social and industrial conditions. The facts relative to the creation of that office indicate that the legislative branch of the state government had motives of its own for creating it, for, from all that can be gathered it seems to be certain that the immediate stimulus to the creation of the bureau was political necessity or expedience. The legis-

\* Revised from an article in the *Cosmopolitan Magazine* of June, 1892, with the consent of the publishers.

lature seized upon the recommendations which had been made by two special commissions, the first reporting February 7, 1866, recommending among other things, "that provision be made for the annual collection of reliable statistics in regard to the condition, prospects and wants of the industrial classes;" and the second, reporting January 1, 1867, unanimously recommending "that a bureau of statistics be established for the purpose of collecting and making available all facts relating to the industrial and social interests of the Commonwealth." These recommendations are all that can be distinctly classified as official action prior to the creation of the Bureau of Statistics of Labor in Massachusetts which dates from June 22, 1869. The functions of that bureau were defined by law as follows:

The duties of such bureau shall be to collect, assort, systematize and present an annual report to the legislature, on or before the first day of March in each year, statistical details relating to all departments of labor in the Commonwealth, especially in its relations to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and to the permanent prosperity of the productive industry of the Commonwealth.

The substance of this language finds a place in nearly every law creating a state bureau of similar character in this country, and also in the federal law organizing the United States Bureau of Labor and subsequently the Department of Labor. There are now in this country thirty-one state offices similar to that created in Massachusetts in 1869.\*

The efforts looking to the establishment of a federal office date from April 10, 1871, when Honorable George F. Hoar of Massachusetts, then a member of the house of representatives, introduced a bill "to provide for the appointment of a commission on the subject of wages and hours of labor and the division of profits between labor and capital in the United States." December 13, 1871, Mr. Hoar introduced his bill with certain amendments, and amendments were also proposed by Mr. Killinger. This bill passed the house of representatives December 20, 1871, was brought into the senate January 8, 1872, and was referred to the Committee on Education and Labor. It was reported back by Senator Sawyer, with certain minor amend-

\* The various state bureaus have been created as follows: Massachusetts, 1869; Pennsylvania, 1872; Connecticut, 1873; Missouri and Kentucky, 1876; Ohio, 1877; New Jersey, 1878; Illinois and Indiana, 1879; New York, California, Michigan and Wisconsin, 1883; Iowa and Maryland, 1884; Kansas, 1885; Rhode Island, Nebraska, North Carolina, Maine, Minnesota and Colorado, 1887; West Virginia, 1889; North Dakota and Idaho, 1890; Tennessee, 1891; Montana and New Hampshire, 1893; Washington, 1897; Virginia, 1898; Louisiana, 1900.

ments, and other amendments were proposed by Senator Wilson. Nothing more was done in that congress, which was the forty-second; but April 23, 1879, the legislature of Massachusetts sent a resolution to congress asking for the establishment of a national bureau of labor, and May 5th of the same year Mr. Murch, of Maine, introduced a bill to establish a bureau of labor statistics. On December 8, 1879, Senator Hoar introduced in the senate a bill to establish a labor commission. No action was taken upon either bill. April 12, 1880, in the house of representatives, Mr. Warner introduced a bill to establish a bureau of mines and mining, a bureau of manufacturers, and a bureau of labor statistics in the Department of the Interior. This bill was never considered. January 9, 1882, in the house of representatives, Mr. Belford reintroduced Mr. Warner's bill. December 4, 1883, in the senate, Mr. Blair introduced a bill to establish a bureau of statistics of labor, and December 10th of the same year, in the house of representatives, Mr. Willis introduced a bill to establish a bureau of labor and industries. December 11th, the same year, Mr. Hopkins, in the house of representatives, introduced a bill to establish and maintain a department of labor statistics. February 12, 1884, the Committee on Labor of the house, after considering various bills, reported the bill introduced by Mr. Hopkins, to establish and maintain a department of labor statistics, and this bill passed the house of representatives April 19, 1884. It was received in the senate on the 21st of the same month, and was reported back, April 25th, by Mr. Blair, Chairman of the Committee on Education and Labor. May 22, 1884, Mr. Garland proposed certain amendments to this bill, as did Senator Aldrich. Out of these various bills introduced in 1883-84, an act establishing a bureau of labor in the Department of the Interior was framed and passed, and was signed by the president June 27, 1884. This act provided that "the commissioner of labor shall collect information upon the subject of labor, its relation to capital, the hours of labor and the earnings of laboring men and women, and the means of promoting their material, social, intellectual and moral prosperity."

The earlier bills to which reference has been made were introduced as the result of the establishment of the Bureau of Statistics of Labor in Massachusetts; the later bills, those introduced in the year 1879 and subsequently, resulted from the various petitions of labor organizations.

The United States Bureau of Labor was organized in January,

1885, and the Commissioner of Labor, February 4, 1885, addressed a letter to the Honorable Secretary of the Interior declaring the policy of the office, in which he said:

It should be remembered that a bureau of labor cannot solve industrial or social problems, nor can it bring direct returns in a material way to the citizens of the country; but its work must be classed among educational efforts, and by judicious investigations and the fearless publication thereof it may and should enable the people to comprehend more clearly and more fully many of the problems which now vex them.

After the Bureau of Labor—as one of the bureaus of the Department of the Interior—had been in existence three years and had shown the character of its work, the Knights of Labor demanded that Congress should create a department of labor, to be independent of any of the general departments. To this end Congressman O'Neill of Missouri introduced a bill to establish a department of labor, and this bill was promptly passed by the House and the Senate, and was approved June 13, 1888, the act providing that "there shall be at the seat of government a department of labor, the general design and duties of which shall be to acquire and diffuse among the people of the United States useful information on subjects connected with labor, in the most general and comprehensive sense of that word, and especially upon its relation to capital, the hours of labor, the earnings of laboring men and women, and the means of promoting their material, social, intellectual and moral prosperity." The act defines the organization of the department and the duties of the commissioner, and provides for transferring the Bureau of Labor, its duties, etc., to the Department of Labor. The new department, therefore, simply continued the existence of the Bureau of Labor, but with independent functions. The head of the department was not placed in the cabinet, but occupied under the new law a position similar to that of the commissioner of agriculture before that department was made a cabinet office. The powers, duties, and efficiency of the Department of Labor were placed on a better footing than that which existed under the Bureau of Labor.

#### ORGANIZATION AND FUNCTIONS.

With this brief history of the origin of the United States Department of Labor, it is well to describe its organization and functions, as they really represent those of the various State bureaus. The Department is presided over by a commissioner,

entitled "The Commissioner of Labor;" there is a chief clerk, a disbursing officer, stenographers, statistical experts, special agents, librarian, translator, and a proper corps of clerks, messengers, and watchmen. The grade of pay is the same as that pertaining to other federal offices. The functions of the Department are to collect and publish information, as the law defines, relating to the material, social, intellectual, and moral prosperity of laboring men and women. Under these broad powers the commissioner can undertake any investigation which in his judgment relates to the welfare of the working people of the country, and which can be carried out with the means and the force at his disposal. He is obliged by law to make an annual report covering the results of his investigations, and he may make, in his judgment, special reports on particular subjects whenever required to do so by the President or either house of Congress, or when he shall think the subject in his charge requires a special report.

Since November, 1895, the Department has published a bimonthly bulletin. This is published in accordance with a law approved March 2, of the same year, as follows:

The Commissioner of Labor is hereby authorized to prepare and publish a bulletin of the Department of Labor, as to the condition of labor in this and other countries, condensations of State and foreign labor reports, facts as to conditions of employment, and such other facts as may be deemed of value to the industrial interests of the country, and there shall be printed one edition of not exceeding ten thousand copies of each issue of said bulletin for distribution by the Department of Labor.

In accordance with the plan adopted, the Bulletin has at least four regular departments of information in each issue, as follows:

First. The results of original investigations conducted by the Departments or its agents and experts.

Second. A digest of state labor reports.

Third. A digest of foreign labor and statistical documents.

Fourth. The reproduction immediately after their passage of new laws that affect the interests of the working people, whether enacted by congress or by state legislatures; and accompanying this there is the reproduction of the decisions of courts interpreting labor laws or passing upon any subject which involves the relations of employer and employe.

The department thus has three methods of announcing the results of its investigations. The only limitation to the work is that of means and equipment.

The information under any investigation is usually collected on properly prepared schedules of inquiry in the hands of expert special agents, by which means only the information which pertains to an investigation is secured. Rambling and nebulous observations, which would be likely to result from an investigation carried on by inquiries not properly scheduled, are thus avoided. The great advantages of this method have been demonstrated by many years of experience. Sometimes the peculiar conditions accompanying an investigation admit of the use of the mail, but as a rule the attempt to collect information upon any given subject under investigation through the mail has proved a failure. With properly instructed special agents, who secure exactly the information required, who are on the spot to make any explanation to parties from whom data are sought, and who can consult the books of account at the establishment under investigation, the best and most accurate information can be secured, and in a condition for tabulation; in fact, sometimes under this method the tabulation is partially accomplished by the form of the inquiry and answer as shown by the schedule. It should be remembered that the Department of Labor does not attempt to secure information concerning all the people or all the establishments of a city or of the country. This character of work belongs to the census office and to the methods of general enumeration. The Department of Labor must secure specific information and on specific topics.

The question is often asked, "How do people receive the agents of the department?" As a rule the reception is kindly, even if one declines to give the information sought. As representative and special facts are required, it is always found that if one establishment or one man from whom facts are desired declines to give them, some other establishment or some other man will be found sufficiently interested in the subject as presented to furnish the information. As time progresses the declinations are less frequent. The department never allows the names of parties furnishing facts to be given in its reports, but it seeks every method of verification open to it. Thus confidence is secured, from the knowledge that in none of the reports have private interests been endangered. Through this confidence manufacturers in this and other countries have opened their books of account, their pay rolls, and their records to the agents of the department. Estimates, hear-say statements, what a man thinks relative to a fact that can be ascertained—in fine, all variable ele-

ments—are carefully and strictly excluded and only original and positive data accepted. Even under this rigid method errors will creep into an official report, and sometimes a statistical conclusion will be, to a small degree at least, invalidated. Such an occurrence, however, is exceedingly rare in the history of the department.

After the information is brought into the office the schedules containing it are subjected to most careful scrutiny, for the purpose of ascertaining whether there are any logical faults or incongruities in it. If such are found the agent furnishing it is called upon to verify his work. What I mean by "logical faults or incongruities" is this: For instance, the product of an establishment may be given at a certain sum and the raw material at another, the two being entirely out of proportion. Under such circumstances a schedule could not be accepted, and there must be a re-examination. When the schedules are all verified the classifications and tabulations are made, every calculation being subjected to rigid verification in the preparation of copy for the press, and in the reading of the proof all original calculations must again be verified, all references re-examined, and every care taken to guard against typographical as well as clerical errors. Figures made by the officers of the department in their analysis or by the most skilled expert in it are never allowed to be printed until verified.

#### THE CHARACTER OF THE WORK.

The altruistic spirit of the age undertakes to ascertain what social classes owe to each other, and statistical science helps the world to the answer. Generally three answers may be given to the inquiry. If we say social classes owe nothing to each other, then society retrogrades to civilized heathenism, and neither social science nor statistics has any place among the departments of human knowledge. (If the answer is that social classes owe everything to each other, then socialism is the logical form of social organization.) But if the answer is in the spirit of "Inasmuch as ye have done it unto the least of these, ye have done it unto me," then we have put the Christian religion into social science, have answered the question rationally, and must have the light of facts in order that the action, either of governments or of communities, under the spirit of this answer shall not be either futile or absurd. Altruism is the rule of the day as

against the individualism of the past. Its tendency must be guided by facts, and facts can only be gained by the most faithful application of the statistical method, not only in the gathering thereof, but in the application. Personal observation on which to base conclusions is not sufficient. Very many illustrations might be given of this fact, but they are hardly essential. The assertion can be made, however, without fear of contradiction, that very many conclusions have been deduced from mere observation, which the facts, when properly classified, showed were erroneous. The attempt to compare criminal conditions through criminal statistics, the use of city criminal statistics as against those belonging to the country, the acceptance of one line of statistics relative to moral conditions when two or three are essential—all these directions in which the statistical method is used teach us that ordinary observation is too faulty, at least for legislative purposes. So the character of the work of an office having the functions of the Department of Labor must be based upon the Baconian idea of securing the facts before taking the action.

The character of the work of the Department has been critical, involving the closest application of the statistical method, and has been free to a large extent, if not entirely, from any desire to argue a point. If there have been errors in the origin of investigations they have arisen from a misconception of what constitutes labor statistics. A glance at the different volumes already issued may perhaps give the best evidence as to whether the Department has properly construed the character of its work. The Department has issued fifteen annual reports, nine special reports, and thirty-six bi-monthly bulletins.

The first annual report related to Industrial Depressions. The information for this report was collected and classified by a force entirely inexperienced, with a small amount of money at command, with the anxiety that comes of the organization of a new work, with some jealousies as to the appointment of the head prejudicing its labors, with a critical watchfulness of friend and foe, and with the idea prevailing among labor organizations that the duty of the new office (then the Bureau of Labor) was in the nature of propagandism, and not of the educational function of gathering and publishing facts. This report upon Industrial Depressions, however, gave the Bureau of Labor a standing, and convinced its friends that with proper financial equipment it could handle any reasonable investigation that might be com-

mitted to it. The statistics published in that report bore upon the various features involved in depressions. It brought out for the first time the relation of nations to each other as producers and the various influences bearing upon discontent, and gave a summary of the causes and a classification as to regularity of previous depressions, etc., etc., every page bearing directly or indirectly upon the condition and the welfare of the working men and women of the country.

The second annual report (now out of print) related to convict labor as carried on in the penal institutions of the country. This investigation was directed by a joint resolution of Congress. It comprehended all the facts ascertainable relating to the employment of convicts in every institution of whatever grade in the United States in which the inmates were in any way employed on any kind of productive labor. The results were exceedingly valuable, and they brought out the clear and well-defined relations between convict labor and other labor, the importance of it, the character of it, the relation of cost to product, and all the other features which one might expect as bearing upon the subject. The report also contained a most valuable digest of the laws of States and of countries in the past and for the present bearing upon the employment of convicts. All the methods in vogue were fully and freely described and discussed and their advantages and disadvantages brought into relation. Certainly the whole report must be considered strictly as one of labor statistics.

The third annual report (now out of print) was the result of an investigation relating to strikes and lockouts occurring in the United States during the years 1881 to 1886, inclusive. The report was exhaustive and complete, so far as all the material facts relating to strikes and lockouts were concerned. It could not undertake to investigate the psychological elements of strikes except as such psychological elements were illustrated in actions and results. The statistical method fails when it undertakes to grasp the inner motives of men; but it succeeds when it undertakes to record the results of those motives as they appear to the public. The report contained a digest of laws relating to strikes and boycotts, the course of the change of sentiment in judicial decisions on conspiracies, and a brief history of the great strikes of the past. Clearly, the report was one of labor statistics and nothing else.

The fourth annual report related to working women in twenty-two of the larger cities of the United States. It did not undertake to investigate the work of women in the lowest industrial pursuits, nor in the professions nor even in semi-professional callings, but gathered all the facts as to wages, expenditures, health, moral and sanitary surroundings and conditions, and results of work for those women popularly known as "shop girls"—perhaps the middle class of working women. The facts were almost entirely collected by women, who took every means to verify the statements made to them, and the results were a body of facts relating to more than 17,000 women. The report also comprehended what was being done in the cities canvassed in the way of clubs, homes, etc., to assist working women when out of employment or when otherwise requiring temporary encouragement. To my own mind, this report must be classed among the most valuable of those relating to labor.

The fifth annual report (now out of print) was upon the railroad labor of the country, and by it the results as to pay and the efforts of companies to assist their employes, the liability for accidents, and other features were brought out. Railroad corporations gave into the hands of the agents of the department their vouchers and pay rolls, from which were taken all the facts relating to wages and earnings. When it is understood that there are nearly a million employes of the different railroad corporations in the country, the importance of securing and publishing the facts relating to them becomes apparent. The vast body of workers on the great railroad systems of the country, in whose hands the welfare of the community in many respects is placed, and upon whose faithfulness in the discharge of duty life and limb so largely depend, is a body for which all facts should be ascertained. This report has never been studied as it should be. It contains data of the greatest importance in the consideration of labor questions. The migration of labor—its tendency to change position and to seek new fields—was for the first time, so far as my knowledge goes, brought out and statistically stated. A new thought was also brought to light, resulting in what may be called the "theoretical condition" of employes working under the wage system. Philosophically, so far as the discussion of labor questions and of certain features of socialism is concerned, the fifth annual report offers material never before published.

The sixth and seventh annual reports relate primarily to the cost of producing iron and steel and cognate products, the

textiles and glass in this and other countries. This work was ordered by Congress in the organic law of the Department. It took three years and a half of the most laborious efforts to collect and tabulate the information. The primary object of securing the information relative to the cost of production, so far as congressional action is concerned, was to ascertain the difference between the cost of producing articles abroad and in this country, that a more scientific conclusion might be reached relative to the rates of duties necessary for the purposes of equalization. Incidentally, however, along with the collection of the data required by Congress, the wages of those working in the industries comprehended by the investigation, as stated, and the cost of the living of workers in these industries were considered, and the bulk of the reports (the sixth and the seventh) relate to wages and the cost of living, comprehending in the latter features the facts for more than 16,000 families. Thoroughly and pre-eminently are these reports of labor statistics.

The eighth annual report was especially ordered by Congress, and related to industrial education in different countries. It took up the status of industrial education in the United States, Austria, Belgium, France, Germany, Great Britain, Italy, Russia, the Scandinavian countries, and Switzerland. It also dealt with the kindergarten in relation to manual training, manual training in conjunction with book-work, manual training and trade instruction in reformatories, the effect of manual training and trade instruction upon the individual, and it contained an extensive bibliography of works treating upon industrial education. This report has been of great value in states where the subject of industrial education in any form has been discussed by legislatures.

The ninth annual report related to building and loan associations, including under that general title all associations the objects of which were similar to those of building and loan associations, the general subject including co-operative banks, mutual loan associations, homestead aid associations, savings fund and loan associations, and other similar institutions. The work was comprehensive, and covered all the associations in the United States as they existed in 1892-93, with full tables giving the facts as to number, series, shares, number and sex of shareholders, etc., etc. It also contained special interest-rate tables and average premium-rate tables, with a description of the various plans adopted for the payment of premiums and for the distribution of profits, as well as withdrawal plans. The report

also contained a chapter giving general legislation relating especially to building and loan associations.

The tenth annual report (now out of print) was a continuation of the third, relating to strikes and lockouts, and was in two volumes, Volume I containing an analysis of all tables and the detail tables of all strikes and lockouts occurring in the United States from January 1, 1887, to June 30, 1894. Volume II contained summaries of the detail tables given in Volume I. The analysis reclassified and resummarized the facts contained in the third annual report, giving strikes and lockouts from January 1, 1881, to December 31, 1886. The tenth, therefore, comprehended all strikes and lockouts from 1881 to June 30, 1894.

The eleventh annual report was the result of an investigation concerning the work and wages of men, women, and children, classifying the occupations and earnings of women and children and men and dealing with the relative efficiency of women and children and men engaged in the same occupation, the comparison of earnings of women and children and men of the same grade of efficiency, the reasons usually given for the employment of women and girls, the hours per week worked in establishments, and the different occupations followed by women and girls.

The twelfth annual report was the result of instructions from congress authorizing the Commissioner of Labor to make an investigation relating to the economic aspects of the liquor problem. The report gave the production and consumption of liquors, the traffic in liquors, the revenue derived from the production of and the traffic in the same, the experience and practice of employers relative to the use of intoxicants, and various tables relating to license fees or special taxes, fines, etc. It also gave the laws regulating the revenue derived from liquor production and traffic in the different states. The report was for the year ending June 30, 1897.

The thirteenth annual report, entitled Hand and Machine Labor, was also the result of an investigation authorized by joint resolution of Congress, under the provisions of which the Commissioner of Labor was authorized and directed to investigate and make report upon the effect of the use of machinery upon labor and the cost of production, the relative productive power of hand and machine labor, the cost of manual and machine power as they are used in the productive industries, etc. This resolution was approved August 15, 1894, and after between three and four years of very difficult labor the results of the investigation were

reported in October, 1898, in the thirteenth annual report. The work was published in two volumes.

The fourteenth annual report, published in December, 1899, related to water, gas and electric light plants under private and municipal ownership, and was designed to bring out the essential facts relating to such works in the United States. The report was the result of an agreement by the various commissioners of labor at their annual convention held in Albany in June, 1896. It was impossible to make such a report comprehensive in all its details, yet the department was able to bring out the facts for the representative private and municipal works under the various designations as they existed in the United States at the time of the investigation.

The fifteenth annual report is the only compilation the department has ever indulged in. All its works other than this have been the results of original inquiry and investigation. The fifteenth annual gives the wages and hours of labor in the principal commercial countries of the world for as many years as possible, the facts being taken from authenticated official reports of the countries involved in the compilation. In many countries the quotations of rates run back many years, and in all countries, so far as possible, they are brought down to the summer of 1900.

The sixteenth annual report is now in course of preparation, and covers the statistics of strikes and lockouts from June 30, 1894 (the date at which the investigation resulting in the tenth annual report ended), to December 31, 1900. The report will restate the summaries contained in the third and tenth reports. A history of strikes prior to 1880, and also the attitude of the courts relative to conspiracy, etc., will be given. When this report is published, which will not be until the winter of 1901, the department will have an exhibit of the strikes and lockouts in the United States from January 1, 1881, to December 31, 1900, a period of twenty years.

The first of the special reports published by the department is entitled A Report upon the Statistics of and Relating to Marriage and Divorce, and was sent to Congress in 1889 under special provision of an act of Congress to enable the commissioner to make the report. This document covers the statistics of marriage and divorce in the United States for twenty years, from 1867 to 1886 inclusive, and it comprehends also statistics and laws of other countries. To make it required the collection of data

from libels for divorce and divorce dockets of more than 2,600 courts in the United States having divorce jurisdiction. Much has been said by my friends in labor organizations condemnatory of this report, not as to its character, but as to the propriety of the department of labor making it. The answer is very emphatic and, to my mind, thoroughly comprehensive: that Congress found the department of labor the only one connected with the government having the proper machinery for carrying out its purposes; further, if there is any subject in which labor should be actively interested, and which concerns the happiness of the working man, it is the sacredness and the permanency of home relations. To my own mind, the report upon marriage and divorce is as thoroughly—although on the first appearance somewhat remotely—essential to labor in all its interests as any reports upon wages or cost of living.

The second special report is one that has been in very great demand. It was originally published in 1892, and comprehended the labor laws of the United States government and of the different states, giving such laws in full, together with annotations relative to decisions of courts affecting them. By a concurrent resolution adopted by Congress March 5, 1896, a second and revised edition of the second special report was published.

The third special report (now out of print) was simply an analysis of all state labor reports that had been published up to 1893, and was made with special reference to the needs of the department. No subsequent analysis has been made, but an analytical list of the contents of the various annual and biennial reports of the states having bureaus of statistics of labor or similar offices is in course of preparation. These volumes now number over four hundred.

The fourth special report related to compulsory insurance in Germany; the fifth special, to the Gothenburg system of regulating the liquor traffic; the sixth special, to the phosphate industry of the United States; the seventh special, to the slums of the cities of New York, Chicago, Philadelphia and Baltimore; the eighth special, to the housing of the working people, and the ninth special consisted of a study of the Italians in the city of Chicago.

In addition to the annual and special reports just enumerated, thirty-three numbers of the Bimonthly Bulletin have already been issued. The leading articles in these bulletins are as follows:

- No. 1. Private and public debt in the United State., by George K. Holmes.  
Employer and Employee under the common law, by N. H. Olmsted and S. D. Fessenden.
- No. 2. The poor colonies of Holland, by J. Howard Gore, Ph. D.  
The industrial revolution in Japan, by William Eleroy Curtis.  
Notes concerning the money of the U. S. and other countries, by W. C. Hunt.  
The wealth and receipts and expenses of the U. S., by W. M. Steuart.
- No. 3. Industrial communities; Coal Mining Co. of Anzin, by W. F. Willoughby.
- No. 4. Industrial communities; Coal Mining Co. of Blanzy, by W. F. Willoughby.  
The sweating system, by Henry White.
- No. 5. Convict labor.  
Industrial communities: Krupp Iron and Steel Works, by W. F. Willoughby.
- No. 6. Industrial communities: Familistere Society of Guise, by W. F. Willoughby.  
Cooperative distribution, by Edward W. Bemis, Ph. D.
- No. 7. Industrial communities: Various communities, by W. F. Willoughby.  
Rates of wages paid under public and private contract, by Ethelbert Stewart.
- No. 8. Conciliation and arbitration in the boot and shoe industry, by T. A. Carroll.  
Railway relief departments, by Emory R. Johnson, Ph. D.
- No. 9. The padrone system and padrone banks, by John Koren.  
The Dutch Society of General Welfare, by J. Howard Gore, Ph. D.
- No. 10. Condition of the Negro in various cities.  
Building and loan associations.
- No. 11. Workers at gainful occupations at the census of 1870, 1880, and 1890, by W. C. Hunt.  
Public baths in Europe, by Edward Mussey Hartwell, Ph. D., M. D.
- No. 12. The inspection of factories and workshops in the U. S., by W. F. Willoughby.  
Mutual rights and duties of parents and children, guardianship, etc., under the law, by F. J. Stimson.  
The municipal or cooperative restaurant of Grenoble, France, by C. O. Ward.
- No. 13. The anthracite mine laborers, by G. O. Virtue, Ph. D.
- No. 14. The Negroes of Farmville, Va.; A social study, by W. E. B. Du Bois, Ph. D.  
Incomes, wages, and rents in Montreal, by Herbert Brown Ames, B. A.

- No. 15. Boarding homes and clubs for working women, by Mary S. Ferguson.  
The trade-union label, by John Graham Brooks.
- No. 16. The Alaskan gold fields and opportunities for capital and labor, by S. C. Dunham.
- No. 17. Brotherhood relief and insurance of railway employes, by E. R. Johnson, Ph. D.  
The nations of Antwerp, by J. Howard Gore, Ph. D.
- No. 18. Wages in the United States and Europe, 1870 to 1898.
- No. 19. The Alaskan gold fields and opportunities for capital and labor, by S. C. Dunham.  
Mutual relief and benefit associations in the printing trade, by W. S. Waudby.
- No. 20. Condition of railway labor in Europe, by Walter E. Weyl, Ph. D.
- No. 21. Pawnbroking in Europe and the United States, by W. R. Patterson, Ph. D.
- No. 22. Benefit features of American trade unions, by Edward W. Bemis, Ph. D.  
The Negro in the black belt: Some social sketches, by W. E. B. Du Bois, Ph. D.  
Wages in Lyons, France, 1870 to 1896.
- No. 23. Attitude of women's clubs, etc., toward social economics, by Ellen M. Henrotin.  
The production of paper and pulp in the U. S. from January 1 to June 30, 1898.
- No. 24. Statistics of cities.
- No. 25. Foreign labor laws: Great Britain and France, by W. F. Willoughby.
- No. 26. Protection of workmen in their employment, by Stephen D. Fessenden:  
Foreign labor laws; Belgium and Switzerland, by W. F. Willoughby.
- No. 27. Wholesale prices: 1890 to 1899, by Roland F. Falkner, Ph. D.  
Foreign labor laws: Germany, by W. F. Willoughby.
- No. 28. Voluntary conciliation and arbitration in Great Britain, by J. B. McPherson.  
System of adjusting wages, etc., in certain rolling mills, by J. H. Nutt.  
Foreign labor laws: Austria, by W. F. Willoughby.
- No. 29. Trusts and industrial combinations, by J. W. Jenks, Ph. D.  
The Yukon and Nome gold regions, by S. C. Dunham.  
Labor Day, by Miss M. C. de Graffenried.
- No. 30. Trend of wages from 1891 to 1900.  
Statistics of cities.  
Foreign labor laws: Various European countries, by W. F. Willoughby.

- No. 31. Betterment of industrial conditions, by V. H. Olmsted.  
Present status of employers' liability in the U. S., by S. D. Pesenden.  
Condition of railway labor in Italy, by Dr. Luigi Einaudi.
- No. 32. Accidents to labor as regulated by law in the U. S., by W. F. Willoughby.  
Prices of commodities and rates of wages in Manila.  
The Negroes of Sandy Spring, Md.: A social study, by W. T. Thom, Ph. D.  
The British Workmen's Compensation Act and its operation, by A. Maurice Low.
- No. 33. Foreign labor laws: Australasia and Canada, by W. F. Willoughby.  
The British Conspiracy and Protection of Property Act and its operation, by A. Maurice Low.

In addition to the annual and special reports and the bimonthly Bulletin, a large part of the force of the Department was engaged for nearly a year, in association with the Senate Committee on Finance, in collecting for that committee the statistics of wages and prices for a period of 52 years (from 1840 to 1891, inclusive) which were published in seven volumes. It has also made some reports in accordance with Senate resolutions calling for the same, namely, one on Total Cost and Labor Cost of Transformation in the Production of Certain Articles in the United States, Great Britain, and Belgium; one on the Cost of Producing White Pine Lumber in the United States and Canada; and one on the Effect of the International Copyright Law in the United States.

To my mind, all the facts which have so far been gathered and published by the Department bear, either directly or indirectly, upon the industrial and humanitarian advance of the age, and are all essential in any intelligent discussion of what is popularly known as the "labor question." Labor statistics must not be considered as simply statistics relating to narrow fields, but, in the language of the law creating the Department of Labor, they should relate to the "material, social, intellectual and moral prosperity" of all concerned; and this means the material, social, intellectual, and moral prosperity of society itself. If the industrial elements of a nation are not progressing intellectually and morally to a higher social plane, little can be expected from all the educational efforts which may be made under the conventional and academic methods. There must be the broader education which comprehends the industrial freedom of men and women as a prerequisite to securing intellectual and political freedom.

Kindly criticism is sometimes made upon the Department by its friends that it does not do this or that—that it has not taken up investigations that are most pressing in their nature. The answer to this is that the Department is limited in many directions. It would be a very great piece of maladministration to undertake an investigation that could not be carried to reasonable completeness—to undertake a work which the Department has neither the means nor the equipment to carry on, and very many of the suggestions which are in the kindest way made to it are suggestions which would involve the expenditure of hundreds of thousands of dollars to carry out, and the employment of a force of hundreds of people instead of the use of the means and the force at the command of the Department. There has never been a suggestion made relative to the work of the Department that the commissioner would not gladly have carried out had he had the means to do so. And yet Congress has been very liberal. Commencing with \$25,000 as the annual appropriation for the Bureau of Labor, Congress now appropriates more than \$175,000, exclusive of printing, for the administration of the Department, and so far as I know there has been no inclination on the part of the House, the Senate, or the President to in any way abridge or interfere with the work of the Department. On the other hand, it has met with the most generous confidence on the part of Congress and of the President, and been aided in all reasonable ways in bringing its work to a high standard of excellence.

This is in evidence through the continued demand for the reports of the Department. Congress is constantly supplying new editions of exhausted numbers, so that on the whole the Department is able to furnish libraries and students with most of its publications. One of the most gratifying demands comes from reading clubs which are being established rapidly all over the country by labor organizations. The study of economic facts by such organizations ought to be stimulated in every way, and the Federal Government, through its Congress, does not hesitate to meet this demand.

The question is often asked why the Department does not furnish data each year showing the condition of labor and industrial matters continuously. This would be a desirable result to be accomplished, but it would involve a very large expenditure of money, and practically a census of manufacturing establishments. This can be done only at the decennial census of the United States. In order to give complete statements of an indus-

try the Department would have to canvass all the establishments in that industry, and hence in all industries. It will be seen at once that this is an impossibility. The Department is, therefore, content to make special investigations each year, the results of which, if of sufficient importance in volume and value, are published in its annual report, and if of minor importance in volume, although maybe not in value, they are published in the bimonthly Bulletin. The special reports authorized by Congress enable the Department to publish the results of special investigations which cannot be included in either of the other forms of publication.

The Department can determine many things by the statistical method, and it must work emphatically on that method. It is often said that it should undertake the agitation of certain features of reform; in other words that it should become the instrument of propagandism. But when this proposition is made, the question should be asked, Whose idea of reform should be adopted, of what proposition should it become the propagandist, and to what extent should it argue for or against the platforms of this or that party or organization? It seems to me that all men who comprehend the value of accurate knowledge must see at once that for the Department to enter upon such a course would result in its immediate abolition; that should it become the advocate of any theory it would thereby become partisan in its work and thus destroy its own efficiency. If the Department advocates a proposition it necessarily takes the position of an advocate, and hence a partisan, and lays itself open to the charge of having collected facts to substantiate and bolster up its position, or having neglected to secure facts which might antagonize such position. Whenever the head of the Department of Labor attempts to turn its efforts in the direction of sustaining or of defeating any public measure, its usefulness will be past and its days will be few. It is only by the fearless publication of facts, without regard to the influence those facts may have upon any party's position or any partisan's views, that it can justify its continued existence, and its future usefulness will depend upon the non-partisan character of its personnel. And what has been said in regard to the Federal office applies with equal force to the state office of kindred nature. Practically, the Federal and state offices are working along legitimate lines. They have published over 400 volumes.

The British, French, Belgian and Austrian governments, as well as those of New Zealand, New South Wales, the Dominion

of Canada, and the Province of Ontario, Canada, have followed the example of the United States in establishing bureaus of statistics of labor, usually adopting the American plan. The statistical bureaus of several other foreign governments, particularly, Germany, Italy and Sweden publish labor statistics as a part of their regular official work. All these offices are working successfully, and are furnishing economic data which are used by the legislatures of different governments and wherever facts are essential for the proper discussion or consideration of industrial conditions.

The future of usefulness open to this chain of offices is hopeful, indeed, and it is apparent that they are engaged in a grand mission in securing that information which is essential for the proper understanding of industrial conditions. The results they are bringing out constitute a most valuable series of contributions to social and political science. The popular education of the masses in the elementary facts of political and economic science is the greatest educational end of the day. The bureaus of statistics of labor are emphatically in the line of facilitating this grand work by their faithful investigations into all the conditions where facts should be known and into all causes of bad conditions of whatever nature, and by their fearless promulgation of the results of their investigations. To attempt to turn such a sphere of labor to a base purpose is a crime not easily punishable by law, but which can be punished by an unwritten law which reaches the violator through a decree more to be dreaded than any merely judicial order or sentence—the sentence public opinion passes upon the man who prostitutes a public trust in the cause of humanity.

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## LABOR LAWS.

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## LABOR LAWS.

SEC. 122.—*Biennial Reports of Officers—When Made.*—The regular biennial reports of the various officers, \* \* \* \* shall be laid before the governor of the state, in the odd numbered years at the following times:

3. On or before October first those of the \* \* \* and the Commissioner of Labor Statistics.

SEC. 125.—*Number of copies to be printed.*—There shall be printed; \* \* \* \* of the report of the bureau of labor statistics, 4,000 copies; of said reports, 500 copies of the report of the bureau of labor statistics, shall be bound in cloth; all other reports shall be bound in paper covers.

### CHAPTER I.

#### ASSESSMENT OF TAXES.

SEC. 1304. *Exemptions.*—The following classes of property are not to be taxed.

\* \* \* \* \*  
3. Obligations for rent not yet due, in the hands of original payees, private libraries to the actual value of \$300; family pictures; household furniture to the actual value of \$300, and kitchen furniture; beds and bedding requisite for each family; all wearing apparel in actual use; but the exemptions allowed in this sub-division shall not be held to apply to hotels and boarding houses except so far as said exempted classes of property shall be for the actual use of the family managing the same.  
\* \* \* \* \*

The tools of any mechanic, not in any case to exceed \$300 in actual value.  
\* \* \* \* \*

#### OF WORKING ROADS.

SEC. 1535. *Days work.*—Eight hours service for a man, or man and team, shall be required for a days work; but except on extraordinary occasions no person shall be required to go more than three miles from his place of residence to work.

#### TRADES UNIONS.

SEC. 1642. *Organization, purposes, name.*—Any three or more persons of full age, a majority of whom shall be citizens of the state, may incorporate themselves for the establishment of \* \* \* \* trades unions or other labor organizations \* \* \* \* farmers, grangers, of a benevolent \* \* \* scientific, \* \* \* military or religious character, by signing, acknowledging and filing for record with the county recorder \* \* \* stating the name by which the \* \* \* association shall be known, which shall not be the same as that of any such organization previously existing, \* \* \* and the names thereof of the officers for the first year.

## AUTOMATIC COUPLERS AND BRAKES.

SEC. 2080. *On all cars.*—After January 1, 1898, no corporation, company or person, operating a railroad, or any transportation company, \* \* \* shall have upon any railroad in this state any car that is not equipped with such safety automatic coupler.

SEC. 2081. *Driver brake on engines.*—No corporation \* \* \* operating any line of railroad in the state shall use any locomotive engine \* \* \* in the state, that is not equipped with a \* \* \* driver brake.

SEC. 2082. *Power brake on cars.*—No corporation, \* \* \* in the state shall run any train of cars, that shall not have \* \* \* some kind of efficient automatic power brake to enable the engineer to control the train without requiring brakemen to go between the ends or on the top of the cars to use the hand-brake.

SEC. 2083. *Penalty.*—Any corporation \* \* \* in this state running a train of cars \* \* \* contrary to the provisions of the four preceding sections, shall be guilty of a misdemeanor and subject to a fine of not less than \$500 nor more than \$1,000 for each and every offense. \* \* \*

Any railway employe who many be injured by the running of such engine, train or car contrary to the provisions of said sections shall not be considered as waiving his right to recover damage by continuing in the employ of the corporation, \* \* \* operating such engine, train or cars. [G. A. Ch. 18, § 6.]

SEC. 2091. *Taxes paid in labor or supplies.*— \* \* \* Laborers shall have a lien upon any tax voted in aid of a railroad company for the amount due them for labor performed in the construction of said railroad. [Same, § 9.]

## CHAPTER 8.

## OF THE BUREAU OF LABOR STATISTICS.

SECTION 2469. *Commissioner.*—The bureau of labor statistics shall be under the control of a commissioner, biennially appointed by the governor by and with the advise and consent of the executive council, whose term of office shall commence on the first day of April in each even-numbered year and continue for two years, and until his successor is appointed and qualified. He may be removed for cause by the governor, with the advice of the executive council, record thereof being made in his office; any vacancy shall be filled in the same manner as the original appointment. He shall give bonds in the sum of two thousand dollars with sureties to be approved by the governor, conditioned for the faithful discharge of the duties of his office, and take the oath prescribed by law. He shall have an office in the capitol, safely keep all records, papers, documents, correspondence, and other property pertaining to or coming into his hands by virtue of his office, and deliver the same to his successor, except as hereinafter provided.

SEC. 2470. *Duties—report.*—The duties of said commissioner shall be to collect, assort, systematize, and present in biennial reports to the governor on or before the first day of October preceding each regular meeting of the general assembly, statistical details relating to all departments of labor in the state, especially in its relations to the commercial, social, educational, and sanitary conditions of the laboring classes, and to the permanent prosperity of the mechanical, manufacturing, and productive industries

of the state, and he shall as fully as is practicable collect such information and reliable reports from each county in the state, the amount and condition of the mechanical and manufacturing interests, the value and location of the various manufacturing and coal productions of the state, also sites offering natural or acquired advantages for the profitable location and operation of different branches of industry; he shall by correspondence with interested parties in other parts of the United States, impart to them such information as may tend to induce the location of mechanical and producing plants within the state, together with such other information as shall tend to increase the productions, and consequent employment of producers; and in said biennial report he shall give a statement of the business of the bureau since the last regular report, and shall compile and publish therein such information as may be considered of value to the industrial interests of the state, the number of laborers and mechanics employed, the number of apprentices in each trade, with the nativity of such laborers, mechanics' and apprentices' wages earned, the saving from the same; with age and sex of laborers employed, the number and character of accidents, the sanitary condition of institutions where labor is employed, the restrictions, if any, which are put upon apprentices when indentured, the proportion of married laborers and mechanics who live in rented houses, with the average annual rental and the value of property owned by laborers and mechanics; and he shall include in such report what progress has been made with schools now in operation for the instruction of students in the mechanic arts and what systems have been found most practical, with details thereof. Such report shall not contain more than six hundred printed pages, and shall be of the number, and distributed in the manner provided by law.

SEC. 2471. *Power to secure evidence.*—The commissioner of the bureau of labor statistics shall have the power to issue subpoenas, administer oaths, and take testimony in all matters relating to the duties herein required by said bureau, said testimony to be taken in some suitable place in the vicinity to which testimony is applicable. Witnesses subpoenaed and testifying before the commissioner of the bureau shall be paid the same fees as witnesses before a justice court, such payment to be made out of the contingent fund of the bureau in advance, but such expense for witnesses shall not exceed \$100 annually. Any person duly subpoenaed under the provisions of this section, who shall wilfully neglect or refuse to attend or testify at the time and place named in subpoena shall be deemed guilty of a misdemeanor, and upon conviction thereof, before any court of competent jurisdiction, shall be punished by a fine not exceeding \$50 and costs of prosecution, or by imprisonment in the county jail not exceeding thirty days; provided, however, that no witness shall be compelled to go outside the county in which he resides to testify.

SEC. 2472. *Right to enter premises.*—The commissioner of the bureau of labor statistics shall have the power, upon the complaint of two or more persons, or upon his failure to otherwise obtain information in accordance with the provisions of this act, to enter any factory or mill, workshop, mine, store, business house, public or private work, when the same is open or in operation, upon a request being made in writing, for the purpose of gathering facts and statistics such as are contemplated by this act, and to examine into the methods of protection from danger to employes, and the sanitary

conditions in and around such buildings and places, and make a record thereof, and any owner or occupant of such factory or mill, workshop, mine, store, business house, public or private work, or any agent or employee of such owner or occupant who shall refuse to allow any officer or employee of said bureau to so enter, or who shall hinder him, or in any way deter him from collecting information, shall be deemed guilty of a misdemeanor, and upon conviction thereof, before any court of competent jurisdiction, shall be punished by a fine of not exceeding \$100 and costs of prosecution, or by imprisonment in the county jail not exceeding thirty days.

SEC. 2473. *Meaning of terms.*—The expression "factory," "mill," "workshop," "mine," "store," "business house," and "public or private work," as used in this act, shall be construed to mean any factory, mill, workshop, mine, store, business house, public or private work, where five or more wage-earners are employed for a certain stipulated compensation.

SEC. 2474. *Reports of Bureau.*—It shall be the duty of every owner, operator or manager of every factory, mill, workshop, mine, store, business house, public or private work, or any other establishment where labor is employed as herein provided, to make to the bureau, upon blanks furnished by said bureau, such reports and returns as said bureau may require for the purpose of compiling such labor statistics as are contemplated in this act; and the owner, operator or business manager shall make such reports or returns within sixty days from the receipt of blanks furnished by the commissioner, and shall certify under oath to the correctness of the same. Any owner, operator, or manager of such factory, mill, workshop, mine, store, business house, public or private works as herein stated, who shall neglect or refuse to furnish to the commissioner of labor such reports or returns as may be required by the following blank, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding \$100 and costs of prosecution, or imprisoned in the county jail not exceeding thirty days.

BLANK.

Name of firm or corporation ..... Number of hands employed during year ending December 31 ....., males ....., females ....., apprentices ..... Total amount of wages paid during year ending December 31 ....., \$ ..... Total amount of wages paid previous year, \$ ..... Any general increase or reduction of wages during the past year? If so, what per cent of increase or reduction? ..... Cause of increase or reduction ..... Any increase or decrease in business during past year? ..... What means are provided for the escape of employees in case of fire? ..... What measures are taken to prevent accident to employees from machinery? ..... How are buildings ventilated? ..... Are separate water-closets and wash rooms provided for the different sexes? ..... Number of weeks during past year business was run on full time with full force ..... Number of weeks during past year business was run on short time or with reduced force ..... Number of weeks during past year business was suspended ..... Number of strikes during year ending December 31 ....., number involved ..... alleged cause ..... result ..... How many days did strike continue, and what was loss of wages in consequence thereof? ..... Was any property destroyed, and if so, its value? .....

SEC. 2475. *Use of information.*—In the reports of the commissioners no use shall be made of names of individuals, firms or corporations supplying the information called for by sections 2470 and 2471 of this act, such information being deemed confidential and not for the purpose of disclosing personal affairs, and any officer or employee of the bureau of labor statistics violating this provision shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding \$500 and costs of prosecution, or by imprisonment in the county jail not exceeding one year.

SEC. 2476. *Reports and records preserved.*—No report or return made to said bureau in accordance with the provisions of this chapter, and no schedule, record or document, gathered or returned by its officers or employees shall be destroyed within two years of the collection or receipt thereof. At the expiration of two years all records, schedules or papers accumulating in said bureau during said period that may be considered of no value by the commissioner may be destroyed, provided the authority of the executive council be first obtained for such destruction.

SEC. 2477. *Compensation and expenses.*—Said commissioner shall receive a salary of \$1,500 per annum, and shall be allowed a deputy at a salary of \$1,000 per annum in lieu of clerk hire, payable monthly, and necessary postage, stationery, and office expenses, the said salary and expenses to be paid by the state as the salary and expenses of other state officers are provided for. The commissioner, or any officer or employee of the bureau of labor statistics, shall be allowed in addition to their salaries, their actual and necessary traveling expenses while in the performance of their duties; said expenses to be audited by the executive council and paid out of the general fund of the state upon a voucher verified by the commissioner, provided that the total of such expenses for officers and employees shall not exceed \$500 per annum.

SEC. 2975. *Subject to Mechanics Liens.*—The homestead is subject to mechanics' liens for work, labor or material done or furnished exclusively for the improvement of the same. [C. '73, § 1991; R., § 2280; C. '51, § 1248.]

## CHAPTER 8.

### OF MECHANICS' LIENS.

SECTION 3088. *Collateral Security.*—No person shall be entitled to a mechanic's lien who, at the time of making or executing a contract for furnishing material or performing labor, or during the progress of the work, erection, building or other improvement, shall take any collateral security on such contract. But after the completion of such work, and when the contractor or other person shall have become entitled to claim or establish a lien, the taking of such or other security shall not affect the right thereto, unless such new security shall, by express agreement, be given and received in lieu of such lien. [16 G. A., ch. 100, § 2; C. '73, § 2129; R., § 1845; C. '51, § 1009.]

SEC. 3045. *Payable in money or labor—Due bills.*—Instruments by which the maker promises to pay a sum of money in property or labor, or to pay or deliver property or labor, or acknowledge property, labor or money to be due to another, are negotiable instruments, with all the incidents of negotiability, whenever it is manifest from their terms that such was the intent of

the maker; but the use of the technical word "order" or "bearer" alone will not manifest such intent.

SEC. 3053. *Holidays*.—The first day of the week, called Sunday, the 1st day of January, the 22d day of February, the 30th day of May, the 4th day of July, the first Monday in September, the 25th day of December, the day of the general election, and any day appointed by the governor of this state, or by the president of the United States as a day of fasting or of thanksgiving shall be regarded as holidays.

SEC. 3057. *Tender of labor or property*.—When a contract for labor or for the payment or delivery of property other than money, does not fix a place of payment, the maker may tender the labor or property at the place where the payee resides at the time of making the contract, or at the residence of the payee at the time of performance of the contract, or where any assignee of the contract resides when it becomes due, but if the property in such case is too ponderous to be conveniently transported, or if they had no known place of residence within the state at the time of making the contract, or if the assignee of a written contract has no known place of residence within the state at the time of performance the maker may tender the property at the place where he resided at the time of making the contract.

SEC. 3079. *Claims for services preferred—dividends—reports—compensation*.—If the claim of any creditor is for personal services rendered the assignor within ninety days, next preceding the execution of the assignment, it shall be paid in full. [20 G. A., ch. 124; C. '73, § 2122; R., § 1835.]

SEC. 3089. *Who may have lien*.—Every person who shall do any labor upon or furnish any materials, machinery or fixtures for any building, erection or other improvement upon land, including those engaged in the construction or repair of any work of internal improvement, and those engaged in grading any land or lot by virtue of any contract with the owner, his agent, trustee, contractor or sub-contractor, upon complying with the provisions of this chapter, shall have for his labor done, or material, machinery or fixtures furnished, a lien upon such building, erection or improvement, and upon the land belonging to such owner on which the same is situated, or upon the land or lot so graded to secure payment for such labor done or material, machinery or fixtures furnished.

SEC. 3090. *Extent of lien; leasehold interest*.—The entire land upon which any such building, erection or other improvement is situated, including that portion not covered therewith, shall be subject to all liens created by this chapter to the extent of the interest therein of the person for whose benefit such labor was done, or things furnished; and when such interest is only a leasehold the forfeiture of such lease for the non-payment of rent, or for non-compliance with any of the other conditions therein shall not forfeit or impair such liens upon such improvement, but the same may be sold to satisfy such liens and be moved away by the purchaser within thirty days after the sale thereof.

SEC. 3162. *Wages of wife—actions by*.—A wife may receive the wages for her personal labor, and maintain an action therefor in her own name, and hold the same in her own right, and may prosecute and defend all actions for the preservation and protection of her rights and property, as if unmarried.

SEC. 3229. *Indenture*.—Any minor child may be bound to service, until

the attainment of the age of majority, by a written indenture, specifying the age of the minor, the terms of agreement, and, if more than twelve years of age and not a pauper, the indenture must be signed by him of his own free will.

SEC. 3230. *Consent of parent or guardian*.—A written consent must be appended to such agreement and signed by the father, but if he is dead or has abandoned his family or is for any cause incapacitated, by the mother, or if she is dead or incapacitated, by the guardian, or if there is none, then by the clerk of the district court.

SEC. 3231.—The clerk of the district court may bind minors who are paupers until they have attained the age of majority, without obtaining their consent, and the indenture must in that case be signed by the master and said clerk.

SEC. 3191. *Payments*.—Where a contract for the personal services of a minor has been made with him alone, and the services are afterwards performed, payment therefor made to him, in accordance with the terms of the contract, is a full satisfaction therefor, and the parent or guardian cannot recover a second time. [C. '73, § 2240; R., § 2542; C. 751, § 1490.]

SEC. 3996. *Stay of execution—how effected*.—On all judgments for the recovery of money, except those rendered on any appeal or writ of error, or in favor of a laborer or mechanic for his wages. \* \* \* \* \* There may be a stay of execution, if the defendant therein shall, within ten days from the entry of judgment, procure one or more sufficient freehold sureties to enter into a bond, acknowledging themselves security for the defendant for the payment of the judgment, interests and costs from the time of rendering judgment until paid, as follows:

1. If the sum for which judgment was rendered, inclusive of costs does not exceed one hundred dollars, three months;

2. If such sum and costs exceed one hundred dollars, six months. [C. '73; § 3061; R., § 3293.]

## CHAPTER 3.

### OF EXEMPTIONS.

SECTION 4008. *Other exemptions*.—If the debtor is a resident of this state and the head of a family he may hold exempt from execution the following property: All wearing apparel of himself and family, \* \* \* \* \* the necessary provisions and fuel for the use of the family for six months; the proper tools, instruments or books of the debtor. \* \* \* \* \* If a printer, a printing press and the types not to exceed the value of twelve hundred dollars; poultry to the value of fifty dollars and if the debtor is a seamstress, one sewing machine. [25 G. A., ch. 95; 19 G. A., ch. 49; 19 G. A., ch. 62; § 1; 15 G. A., ch. 42; C. '73, § 3072; R., §§ 3304, 3305, 3308; C. '51, §§ 1898-9.]

SEC. 4011. *Personal earnings*.—The earnings of a debtor who is a resident of the state and the head of a family for his personal services, or those of his family, at any time within ninety days next preceding the levy, are exempt from liability of debt.

SEC. 4019. *Debts owing for labor preferred*.—When the property of any company, corporation, firm or person shall be seized upon by any process

of any court, or placed in the hands of a receiver, trustee or assignee for the purpose of paying or securing the payment of the debts of such company, corporation, firm or person, the debts owing to employees for labor performed within the ninety days next preceding the seizure or transfer of such property, to an amount not exceeding one hundred dollars to each person, shall be a preferred debt and paid in full, or if there is not sufficient realized from such property to pay the same in full, then, after the payment of costs, ratably out of the fund remaining, but such preference shall be junior and inferior to mechanics liens for labor in opening and developing coal mines. [23 G. A., chs. 47, 48.]

SEC. 5027. *Blacklisting employees.*—If any person, agent, company or corporation, after having discharged any employee from his or its service, shall prevent or attempt to prevent, by word or writing of any kind, such discharged employee from obtaining employment with any other person, company or corporation, except by furnishing in writing on request a truthful statement as to the cause of his discharge, such person, agent, company or corporation, shall be punished by a fine not exceeding five hundred nor less than one hundred dollars; and shall be liable for all damages sustained by any such person. [22 G. A., ch. 57, § 1.]

SEC. 5028. *Blacklisting—same by agents.*—If any railway company or other company, partnership or corporation shall authorize or allow any of its or their agents to blacklist any discharged employee, or attempt by word or writing or any other means whatever to prevent such discharged employee, or any employee who may have voluntarily left said company's service, from obtaining employment with any other person or company, except as provided for in the preceding section, such company or copartnership shall be liable in treble damages to such employee so prevented from obtaining employment. [Same, § 2.]

SEC. 5040. *Breach of Sabbath.*—If any person be found on the first day of the week, commonly called Sunday, engaged in carrying firearms, dancing, hunting, shooting, horse racing, or in any manner disturbing a worshipping assembly, or private family, or in buying or selling property of any kind, or in any labor except that of necessity or charity, he shall be fined not more than five nor less than one dollar, and be imprisoned in the county jail until the fine, with cost of prosecution, shall be paid; but nothing herein contained shall be construed to extend to those who conscientiously observe the seventh day of the week as the Sabbath, or to prevent persons traveling or families emigrating from pursuing their journey, or keepers of tollbridges, tollgates and ferrymen from attending the same. [C. '73, § 4072; R., §§ 4392-3.]

SEC. 5049. *Falsely using label of labor union.*—Every person, or association or union of working men or others that has adopted or shall adopt for their protection any label, trade-mark, or form of advertisement, may file the same for record in the office of the secretary of state by leaving two copies, counterparts or facsimiles thereof with the secretary of state. Said secretary shall thereupon deliver to such person, association or union so filing the same a duly attested certificate of the record of the same, for which he shall receive a fee of one dollar. Such certificate of record shall in all actions and prosecutions under the following six sections be sufficient proof of the adoption of such label, trade-mark or form of advertisement, and the right

of said person, association or union to adopt the same. [24 G. A., Ch 36, §§ 1, 3.]

SEC. 5050. *Injunctions.*—Every person, association or union adopting a label, trade-mark or form of advertisement, as specified in the preceding section, may proceed by action to enjoin the manufacture, use, display or sale of any counterfeits or imitations thereof, and all courts having jurisdiction of such actions shall grant injunctions to restrain such manufacture, use, display or sale, and shall award the complainant therein such damages resulting from such wrongful manufacture, use, display or sale, and a reasonable attorney's fee to be fixed by the court, and shall require the defendant to pay to such person, association or union the profits derived from such wrongful manufacture, use, display or sale, and a reasonable attorney's fee to be fixed by the court, and said court shall also order that all such counterfeits or imitations in the possession or under the control of any defendant in such case be delivered to an officer of the court to be destroyed. Such actions may be prosecuted for the benefit of any association or union by any officer or member thereof.

SEC. 5051. *Imitation of such label.*—It shall be unlawful for any person or corporation to imitate any label, trade-mark or form of advertisement adopted as provided in the second preceding section, or to knowingly use any counterfeit or imitation thereof, or to use or display such genuine label, trade-mark or form of advertisement, or the name or seal of such person, union or association, or of any officer thereof, unless authorized so to do, or in any manner not authorized by him or it. Any person violating any provision of this section shall be imprisoned in the county jail not more than thirty days, or be fined not less than twenty-five nor more than one hundred dollars. [Same, §§ 1, 2, 5, 7.]

## CHAPTER 21.

### TWENTY-SEVENTH GENERAL ASSEMBLY—HOUSE FILE 178.

AN ACT to amend section seven hundred (700) of the code, relating to the power of cities to regulate, license and tax certain kinds of business.

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

SECTION 1. *Engineers, examinations, licenses.*—That section 700 of the code be amended by striking out the period at the end of said section and adding the following:

"And to provide for the examination and licensing engineers of stationary engines."

Approved March 8, 1898.

## \*CHAPTER 49.

### TWENTY-SEVENTH GENERAL ASSEMBLY—SENATE FILE 53.

AN ACT to amend section number two thousand and seventy-one (2071), chapter five (5), title ten (X), of the Code, relating to liability for injuries to employees.

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

*Prior contracts not a bar or defense to cause of action.*—That section num-

\*Temple amendment.

ber two thousand and seventy-one (2071) of the Code be amended by adding to the end thereof the following:

"Nor shall any contract of insurance, relief, benefit, or indemnity, in case of injury or death, entered into prior to the injury, between the person so injured and such corporation, or any other person or association acting for such corporation, nor shall the acceptance of any such insurance, relief, benefit, or indemnity, by the person injured, his widow, heirs, or legal representatives, after the injury, from such corporation, person, or association, constitute any bar or defense to any cause of action brought under the provisions of this section, but nothing contained herein shall be construed to prevent or invalidate any settlement for damages between the parties subsequent to injuries received."

Approved March 8, 1898.

#### CHAPTER 138.

##### TWENTY-EIGHTH GENERAL ASSEMBLY - SENATE FILE 7.

#### MANUFACTURE OF PEARL BUTTONS AND BUTTER TUBS IN STATE PENITENTIARY.

AN ACT to prohibit the manufacture of pearl buttons and butter tubs in the state penitentiary. (Amendatory of chapter 2, title XXVI of the code, relating to the penitentiaries.)

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

SECTION 1. *Manufacture prohibited.*—It shall not be lawful except to complete existing contracts made by board of control to manufacture for sale any pearl buttons or butter tubs in the penitentiaries of this state and it shall be the duty of the board of control and wardens of said penitentiaries to enforce the provisions of this act and to prohibit the manufacture of pearl buttons or butter tubs in whole or in part, by the inmates confined in the penitentiaries.

SEC. 2. *Existing contracts.*—This act shall not alter or impair the condition of any contract actually made and entered into by and between any contractor and the board of control which shall have been made prior to the passage of this act.

SEC. 3. *In effect.*—This act being deemed of immediate importance shall take effect and be in force on and after its publication in the Iowa State Register and the Des Moines Leader, newspapers published at Des Moines, Iowa.

Approved April 7, 1900.

The laws relating to mines, mining, and miners, have been issued in pamphlet form by the State Mine Inspectors, together with their Biennial report 1899 and 1900.

The several sections and titles are here repeated for reference:

SECTION 2478.—*Inspectors.*

SEC. 2479.—*Board of Examiners.*

SEC. 2480.—*Meetings, compensation.*

SEC. 2481.—*Examination, qualification of candidates.*

SEC. 2482.—*Inspection districts, powers and duties of inspector.*

SEC. 2483.—*General office, report to governor, compensation.*

SEC. 2484.—*Removal of inspector.*

SEC. 2485.—*Maps of mines, surveys, double damages.*

SEC. 2486.—*Escape and air shafts.*

SEC. 2487.—*Time for constructing outlets.*

SEC. 2488.—*Ventilation.*

SEC. 2489.—*Safety appliances, competent engineers, boys not employed.*

SEC. 2490.—*Scales and weighers, records, payment in money.*

SEC. 2491.—*Penalties.*

SEC. 2492.—*Failure to provide for safety of employes.*

SEC. 2493.—*Purity of oil.*

SEC. 2494.—*Penalty.*

SEC. 2495.—*Testing oil.*

SEC. 2496.—*Provisions applicable.*

Laws of the Twenty-eighth General Assembly.

#### CHAPTER 79.

##### COMPENSATION OF MINE INSPECTORS.

Amended section 2483 of the code.

SECTION 1.—*Salaries and allowance for expense increased.*

#### CHAPTER 80.

##### RELATING TO MINES AND MINERS.

SECTION 1. *Slack Excluded.*—Amend section 2490 of the code.

#### CHAPTER 81.

##### PAYMENT OF COAL MINERS.

SECTION 1. *Wages: how and when paid.*—Amend section 2490 of the code.

#### CHAPTER 82.

##### RELATING TO EXAMINATION OF MINE FOREMEN, PIT BOSSES, AND HOISTING ENGINEERS.

SECTION 1. *Certificates of competency.*—Amend chapter 9, title 12, of the code.

SEC. 2. *How procured.*

SEC. 3. *Board of examiners to adopt rules; compensation.*

SEC. 4. *Certificates of competency; how issued.*

SEC. 5. *Fees; certificates recorded.*

SEC. 6. *Penalty.*

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