

State fire Marshall

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STATE OF IOWA

1916

Annual REPORT OF THE

Iowa. (STATE) FIRE MARSHAL

FOR THE YEAR 1916

OLE O. ROE
State Fire Marshal

PUBLISHED BY
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DES MOINES

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STATE FIRE MARSHAL.

Appointed by the Governor. Term, Four Years. Expires July 1, 1919.

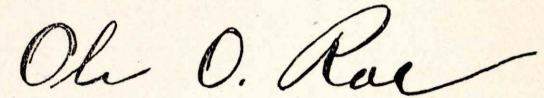
Office	Name	Legal Residence	Birthplace
Fire Marshal -----	Ole O. Roe-----	Des Moines-----	Norway
Deputy -----	J. A. Tracy-----	Sioux City -----	Iowa
Assistant -----	E. J. Frowick-----	Des Moines-----	Iowa
Assistant -----	H. G. Zimmerman-----	Dows -----	Iowa
Chief Clerk and Stenographer -----	Laura M. Pedersen-----	Des Moines-----	Illinois

LETTER OF TRANSMITTAL

Des Moines, February 1, 1917.

HON. W. L. HARDING, *Governor of Iowa.*

Sir:—In compliance with the provisions of Section 2468-n, Supplement to the Code, 1913, I have the honor to submit herewith my sixth annual report of my official acts and of the affairs of this office, covering the period beginning January 1, 1916, and ending December 31, 1916, both dates included.



State Fire Marshal.

Source unknown

ROBERT HENDERSON, STATE PRINTER
J. M. JAMIESON, STATE BINDER
ISSUED MARCH, 1917

SIXTH ANNUAL REPORT STATE FIRE MARSHAL

For the year 1916, 4,471 fires were reported to this office involving a loss of \$5,991,242. The property involved in these fires was valued at \$22,916,172. Of the loss thus reported, property to the value of 4,241,546 was covered by insurance, leaving an excess of loss over insurance amounting to \$1,749,696, and involving 1,487 properties. Included in this excess are 554 properties involving a loss of \$296,568 upon which no insurance was carried.

The total fire loss of 1916 was less than that of 1915 by \$15,672. and less by \$301,403 than that of 1913 which year experienced the largest loss since the establishment of the office.

The average daily fire loss of the year amounted to \$16,369 and the average loss in each fire was \$1,340.

The per capita fire loss in the state of Iowa during 1916 was \$2.54.

During the year six fires occurred in each of which the loss exceeded \$100,000 and two in each of which the loss was more than \$90,000 as follows:

January 11, Ottumwa.....	\$ 246,977
January 15, Muscatine.....	98,050
February 10, Dubuque.....	349,561
April 21, Iowa City.....	103,345
July 15, Newhall.....	90,050
December 8, Cedar Rapids.....	160,345
December 15, Creston.....	146,900
December 15, Oskaloosa.....	105,495
Total	\$1,300,723

The loss sustained in these eight fires exceeds 21.7 per cent of the total fire loss of the state.

The number of dwellings burned was 2,222, and the loss on buildings was \$859,892 and on contents \$348,243.

The sound value of these dwellings was reported at \$4,670,640 and that of their contents at \$1,115,964.

The number of barns burned was 578, and the loss on buildings was \$478,380, and on the contents \$324,142.

The sound value of the barns was reported at \$543,358, and that of their contents at \$363,839.

The number of stores burned was 367, and the loss on buildings was \$374,584, and on the contents \$1,118,566.

The sound value of the store buildings was reported at \$2,212,145, and that of their contents at \$2,859,565.

The number of factories burned was 48, and the loss on buildings was \$115,661, and on the contents \$419,672.

The sound value of the factory buildings damaged was reported at \$711,700, and that of their contents at \$1,475,750.

Ninety-five (95) deaths were reported as the direct result of fire; this number was 11 less than that reported for 1915. Of this number 43 were women and 23 children. In 47 cases fatal to life gasoline or coal oil was involved. Twelve (12) children were fatally burned as the result of playing with matches or fire or being in close proximity to a bonfire.

Inspections of buildings and premises to the number of 612 were made in 137 different cities and towns in the state, upon the basis of which there were issued 113 orders to remove buildings, 62 to repair buildings, 126 to change, 53 to clean-up and repair, and 157 to clean up inflammable conditions.

Two hundred twenty-three (223) suspicious fires were investigated in 120 different places in 65 different counties of the state.

In addition to the number of indictments pending from previous years, mention of which was made in my last report, 35 arrests and prosecutions were had during 1916. Of the cases that came to trial 4 resulted in convictions and sentences to the penitentiary or reformatory, 1 was paroled by the court after a plea of guilty, 2 sentenced to the industrial school for boys, 2 sentenced to the hospitals for the insane, 1 sentenced to the hospital for inebriates, 1 to the institution for feeble minded children at Glenwood, 2 were tried and acquitted, 7 were fined and given jail sentences, three of which were paroled after paying fines, 5 who had made written confessions to setting fire were paroled by the court, 7 indictments are still pending, and 3 are under arrest awaiting final action by the grand jury.

Appended hereto as a part of this report are five tables which set out in detail the reports of the fires and the work of inspection and investigation done by this office.

Table I shows the number of fires reported by counties, the value of the buildings and contents involved, the damage to buildings and contents, the total insurance on buildings and contents, the number of fires partially covered by insurance, the amount of excess

of loss over insurance, the number of fires affecting property without any insurance and the total loss upon property not covered by insurance.

Table II shows the nature and character of the buildings destroyed or damaged, the value of each, the amount of damage thereto, the value of the contents of each and the damage thereto, the kind of material of which each was constructed and whether the loss was total or partial.

Table III contains a summary of the origin and cause of the various fires reported, the number of each and the damage to the buildings and contents, specified by causes.

Table IV contains a list of the cities and towns in which inspections of dilapidated buildings and inflammable conditions were made, the number of places inspected at each point and the number and kind of orders issued, based upon such inspections.

Table V gives a list of the places at which investigations of fires of suspicious origin were made and the date when such investigations were commenced.

STATISTICAL WORK.

The present report contains statistical information more nearly complete than any of its predecessors. It is no small task to keep in touch with and secure reports of fires from more than 2,500 different reporting officials. While some fires which occurred still remain unreported, this number is so small and the fires of such comparative insignificance that they would not materially change the total.

Until the establishment of the state fire marshal's office and the provision for the collection and publication of certain data pertaining to fire losses by that department, there had been no office or other agency in this state concerned in securing this information except the insurance companies and associations, and the fire data reported by them to the various departments consisted only of three items, to wit: risks written and carried, premiums received, and losses incurred and paid.

No account was or could be taken by them of the losses which were either partially or wholly without insurance.

When we consider that about twenty-five (25%) per cent of the total annual fire loss in this state is not covered by insurance, we at once conclude that the only complete and accurate statistical information relative to these matters is obtained by the fire marshal.

Furthermore, the reports received by the fire marshal as to values and loss or damage are invariably the result of the combined judgment of the owner and the local fire chief, mayor, or township clerk who investigates the fire and makes the report to the fire marshal.

In addition to the loss and damage reported, our reports cover the material of which the destroyed or damaged buildings are made, the damage to buildings and contents set out separately, also the nature of the occupancies of the various buildings destroyed or damaged. Furthermore, the cause of each fire so far as the same is ascertainable according to the best judgment of the inspector and the owner is set out.

While old line level premium life insurance has been reduced to an exact science, because premiums are based upon certain mortality tables formulated as the result of observation and experience covering many years, fire insurance has been largely a game of chance.

This condition ought to be remedied, but it never will be until the various hazards are more fully understood and more accurately and scientifically calculated than they are at the present time, and the very basis of this calculation is the gathering of the fire data which the law places upon this department. This is new and original research and one that no other department in the state is charged with pursuing.

EDUCATIONAL WORK.

The law requires teachers in all schools occupying buildings of more than one story in height to have fire drills at least once a month, and the teachers in all public schools are also required to give instruction to their pupils in the causes and dangers of fires as often as once each term.

The duty of preparing and furnishing a bulletin outlining lessons upon fire causes and fire dangers for the use of the teachers has been discharged by me to the best of my ability. Three editions of this bulletin have been prepared and published in sufficient numbers to supply every teacher.

During the past year as well as during previous years I have urged upon county and city superintendents the importance of this subject. I have, however, no means of definitely ascertaining how faithfully and well the law is carried out in this respect. Complaints have not infrequently reached me during the year that fire

drills are neglected and that the giving of instruction in fire causes and fire dangers in our public schools are wholly ignored.

While I have reason to believe that the provision for fire drills is fairly well carried out, I fear that in too many schools there is little or no attention paid to the subjects outlined in the bulletin and required by the law.

In a previous report I recommended that provision be made in the reports of school officers to county superintendents, and by those officials to the superintendent of public instruction, for a statement as to whether or not this as well as every other legal requirement is complied with.

The requirement for the giving of instruction in fire causes and fire dangers is not burdensome. It is in line with the "Greater Care" or "Safety First" movement now sweeping the country. It is instruction of an eminently practical nature and should not be neglected. I have faith in the efficiency of our public schools and in the enduring effects of sound common sense lessons early inculcated in the minds of the children and youth who attend the same, and it is my purpose to continue to urge this work upon the attention of superintendents and teachers; and, when I find willful or persistent neglect in complying with the legal requirements, to invoke the statutory penalty.

FARM FIRE PROTECTION.

By far the larger part of the wealth of our state is found upon our farms. Not only are the farm buildings annually improving in appearance but their contents now possess a value that seemed fabulous a few years ago. The destruction of a modern farm barn with its precious contents is no longer a matter involving hundreds but thousand of dollars.

From the very nature of his location, the farmer cannot enjoy the fire protection either to his home or to his out buildings that is afforded to his neighbor in the city or town where they have an organized fire department, and for these reasons a rigid observance of the principles and rules of Fire Prevention is his only safety. Many of these principles are well known but will nevertheless bear repetition:

(1) Extra care in the building of the chimneys as well as in the placing of the furnace or other heating plants and the frequent inspection of both.

(2) Avoid patent lighting systems unless the generator and supply tank are located outside the house.

(3) Never keep gasoline in the house or barn, and keep the automobile in a building by itself.

(4) A good lightning rod well grounded is a reasonably safe device against lightning, and if possible every barn should be supplied with one.

(5) Hanging lanterns, smoking or scattering matches in barns have caused many fires. Such practices should be absolutely prohibited.

(6) Hay should not be packed into barns until well cured and then ventilation should always be provided.

(7) NEVER under any circumstances should fire be kindled with the aid of kerosene or gasoline.

(8) If possible, provide your house and barn with chemical fire extinguishers.

(9) Impress upon your renter and hired help the importance of observing these safety rules.

(10) Insurance associations, granges, rural community congresses, women's clubs, commercial clubs, and the teachers in our public schools should advocate and inculcate these principles.

SPECIAL LIGHTING SYSTEMS.

In my third annual report to the Governor, I called attention to some special devices for generating illuminating gases which were being placed upon the market in many portions of our state.

As a rule they are sold by agents or solicitors who are either ignorant of their possible danger or purposely conceal the same.

I suggested then to all who might contemplate the installation of special lighting systems that they thoroughly investigate the safety as well as the serviceability of the proposed system. I urged that the generator as well as the material of which the gas is made be kept outside the buildings lighted.

In my fourth and fifth annual reports I recommended a law for the inspection of gasoline and carbide lighting systems. Since then and during the latter portion of the year 1916, two tragedies have occurred in one neighborhood in Audubon County as the result of the explosion of carbide lighting systems:

In the first explosion, one death resulted and another party injured. In the second explosion, five deaths resulted and twelve others were seriously injured.

An explosion in a similar plant occurred in Des Moines County resulting in the death of one person, and another in Hardin County of a carbide gas tank resulting in the death of one.

An explosion also occurred in a like plant near Glidden, Carroll County, about the same time the Audubon County explosions occurred, but fortunately no lives were lost.

It is high time some legislation was enacted providing for the safety of life by designating some supervisory power over such devices.

FIRE PROTECTION.

As a rule there has been the most cordial cooperation between this department and the various Fire Protection agencies of the state. Much improvement has been made along the line of securing better apparatus, especially in motorizing many of the fire departments. Many of the smaller towns have also voted bonds to install water works and equip fire departments.

In all of the matters which go toward making for efficiency in the fire-fighting force, we have endeavored to be helpful but not to supersede the fire chief in the work of Fire Protection which is properly his.

There is still needed, especially in the smaller cities and towns where volunteer departments are maintained, a better system of giving fire alarms, more frequent drills of the men who constitute the various departments, and the frequent testing of hydrants.

The modern fire chief realizes as never before that he must be an advocate of Fire Prevention as well as the leader in Fire Protection, and to this end he favors the most thorough inspection possible, especially of the business portion of his city or town, and the removal or remedying of those conditions which constitute special fire hazards.

FIRE PREVENTION.

At the present time the state fire marshal's office is the only agency in the state which is devoted wholly and solely to the work of Fire Prevention.

In our complex civilization and as a necessary part of our social progress, the agencies which cause fires are continually multiplying. Each of the more than 200,000 licensed automobiles in this state with their attendant gasoline supply is a fire producing factor which was unknown a few years ago. The general introduction and use of electricity not only as a mode of lighting but of heat and power is another agency which has largely increased the fire hazard.

Notwithstanding this and notwithstanding the fact that the per cent of increase in property values subject to destruction by fire from 1913 to 1917 amounts to at least 20 per cent, there has been

no increase in fire destruction, but rather an actual decrease from 1913 to 1916, inclusive, of \$301,000 or a reduction of 4.7 per cent.

During the same period the average cost of insurance, according to the report of the commissioner of insurance of the state, has been reduced from \$11.67 a thousand in 1912 to \$9.87 a thousand in 1915.

However, the work of Fire Prevention education has only begun. The actuarial bureau of the National Board of Fire Underwriters has made a careful analysis of the fire causes in Iowa and their relative loss for the year 1915. As their figures are not only valuable but highly instructive they are submitted herewith:

Strictly Preventable Causes:	Per Cent
Chimneys and flues	6.4
Fireworks	0.1
Gas	0.8
Ashes and coals	0.3
Matches	1.3
Open fires	0.1
Open lights	0.5
Petroleum, etc.	1.7
Rubbish, etc.	0.9
Smoking	5.2
Steam pipes, etc.	1.0
Stoves, etc.	8.2
Total	26.5
Partly Preventable Causes:	
Electricity	8.1
Explosions	1.3
Exposure	11.9
Incendiarism	1.2
Lightning	7.8
Miscellaneous	4.3
Sparks—From fires	2.7
Sparks—From machinery	0.6
Spontaneous combustion	7.3
Total	45.2
Unknown	28.4

From the foregoing it will be seen that 26.5% of the fire loss is strictly preventable, and that 45.2% is partially preventable, making a total of 71.7% which is wholly or partially preventable by the exercise of proper care.

The inspection of buildings and fire hazardous conditions therein and the resultant orders issued by this department (set out in the

beginning of this report) represent only a small fraction of the work that the department has set in motion.

In many of the larger cities they have local fire marshals or fire inspectors working in harmony with this office whose duty it is to inspect buildings and building conditions. Not only this, but in an increasing number of the smaller cities and towns, acting upon the suggestion or recommendation from this office local inspections have been started either under the direction of the fire department or by some thereunto specially designated individual.

In addition to our inspection of buildings, we frequently inspect fire departments and fire apparatus, and we have tried to be helpful in securing better fire protection and more efficient attention to the care of the fire apparatus and in many places better water pressure. In all of these matters we have invariably had the cooperation of fire chiefs and others interested in Fire Protection.

I have also given much attention to the securing of better building ordinances in cities and incorporated towns and to the better enforcement of the ordinances already in effect. This is the first step and the most important step in reducing the fire waste.

ARRESTS AND PROSECUTIONS

WEBSTER TOWNSHIP, HAMILTON COUNTY.

On July 3, 1915, a fire took place which destroyed a dwelling and contents belonging to John T. Baker. After a thorough investigation by this department one Ol Bricker was indicted at the February term, 1916, on a charge of arson and for breaking and entering for the purpose of committing larceny. At the May term, 1916, Bricker was tried and convicted on the charge of breaking and entering. The case was appealed to the supreme court who reversed the judgment on the ground of insufficient evidence.

FLORIS, DAVIS COUNTY.

On November 27, 1915, about 3:30 A. M., a fire occurred which destroyed the residence occupied by R. L. Wilson. After an investigation by this department, Wilson was indicted by the grand jury on a charge of setting fire to injure the insurer. Wilson was tried at the May term, 1916, which resulted in a verdict for the defendant.

DES MOINES, POLK COUNTY.

On December 16, 1915, about 7 P. M., a fire broke out in the general store of Harry Mitchnick. After an investigation by this department Mitchnick was indicted at the January term, 1916, charged with arson. He was tried at the October term, 1916, the trial lasting several days. The jury was out twenty-four hours and disagreed. The case was again set for trial at the December term, 1916, at which time the defendant withdrew his plea of not guilty and entered a plea of guilty of setting the fire with intent to burn and was fined \$200.00 and sentenced to six months in jail. On the payment of the fine the defendant was paroled to Mrs. Weinstock.

JEFFERSON, GREENE COUNTY.

On December 28, 1915, about 2 A. M., a fire broke out which destroyed a furniture store belonging to Ross Potter. After a thorough investigation made by this department, Potter made a confession on February 1, 1916, that he set the fire himself for the purpose of collecting the insurance money. On April 3, 1916, Potter entered a plea of guilty and was sentenced to the Anamosa Reformatory for a period of not to exceed ten years.

UNION TOWNSHIP, BLACK HAWK COUNTY.

On January 14, 1916, about 10 A. M., a fire occurred which destroyed the house occupied by W. H. Angell. After an investigation by this department Angell made a written confession on January 18, 1916, that he set the fire himself for the purpose of collecting the insurance money. On May 25, 1916, Angell entered a plea of guilty in open court and was sentenced to thirty years in the penitentiary, after which an order of court was made withholding commitment for thirty days in order that an application could be made to the board of parole for clemency. On the showing made, the defendant was paroled under certain conditions.

LENOX, TAYLOR COUNTY.

On February 6, 1916, about 8 P. M., a fire broke out destroying a large barn and contents owned and occupied by A. L. Page. A thorough investigation disclosed the fact that Mrs. A. L. Page had hired one Dee Hewitt to burn the barn for a consideration of \$100.00. Hewitt then hired one Hal Johnson to help set the fire. At the March term, 1916, indictments were returned against all three of the parties and on March 7, 1916, Mrs. A. L. Page entered a plea of guilty to the charge of procuring the burning and was fined \$1000 and sentenced to one year in jail, the jail sentence being suspended during good behavior. At the same time Dee Hewitt entered a plea of guilty to the charge of setting the fire and was fined \$750 and sentenced to one year in jail, the jail sentence being suspended during good behavior. Hal Johnson also entered a plea of guilty and was paroled during good behavior.

NEW HAMPTON, CHICKASAW COUNTY.

On February 20, 1916, a fire broke out in an opera house building. After an investigation by this department and the local officers Mrs. Catherine Nugent, aged 65 years, and her grandson, Al. Winters, aged 19 years, made confessions to the local officers that they set the fire to cover up the larceny of certain goods that were in storage in the building, and on March 13, 1916, both Mrs. Nugent and Al. Winters entered a plea of guilty and were each sentenced to the reformatory at Anamosa for a period of five years. Later the sentence was changed and Mrs. Nugent was sent to jail for six months and Winters was sent to the reformatory until he should attain his majority.

CENTER TOWNSHIP, WAPELLO COUNTY.

On the night of March 30, 1916, a fire occurred which destroyed the house and contents owned and occupied by Abraham Hatchett. After an investigation by this department Hatchett was indicted at the April term, 1916, and tried May 19, 1916, which trial resulted in a verdict for the defendant.

SPRING VALLEY TOWNSHIP, DALLAS COUNTY.

On the night of April 26, 1916, a fire occurred which destroyed a barn and contents owned and occupied by Thomas Scott. An early investigation by this department disclosed the fact that of the nine head of horses in the barn at the time of the fire only the carcasses of seven remained and two were missing. During the investigation by this department and the local officers one Lee Lair was arrested on a charge of having stolen the two missing horses and setting the fire to cover up his crime. Lair entered a plea of guilty to stealing the horses and was sentenced to the Anamosa reformatory for a term of ten years.

CLINTON TOWNSHIP, WAYNE COUNTY.

One of the most far reaching cases of conspiracy to defraud brought to the attention of the department since its creation was unearthed in the above named location. The investigation disclosed the fact that persons under various aliases and operating in various locations since 1909 up to June, 1916, had frequently secured from insurance companies large sums of money by means of fraudulent claims on alleged livestock losses.

Their plan of operation was to locate in some out-of-the-way place and let it be known that they expected to buy a ranch and engage in the horse business. Soon after locating, they would purchase some good horses, take out insurance on several head with a \$150 clause on each; a few days after the first electrical storm in the neighborhood several horses were reported to have been killed by lightning; the horses would be found under a tree to which had been nailed a wire fence; the tree would have a quantity of bark scratched therefrom making it have the appearance of having been struck by lightning. After the animals had lain a few days, neighbors would be called in to appraise their value. By that time

the horses were bloated and otherwise in such a condition that it was impossible to make a close examination but upon representation by the assured, appraisal notices were prepared and readily signed, after which they were sent to the insurance company who paid the losses.

The dead horses were usually old, discarded plugs that had been led to the slaughter and killed in the place of the good horses that were insured.

After the money had been collected, the parties would change location as well as name, go through the same process in the new locality until they were closed in on by this department. This occurred after they had filed a claim for \$600 on account of four horses that were supposed to have been killed by lightning in June, 1916.

During the investigation, photographs were taken of the tree supposed to have been struck by lightning, the jaws and feet of the horses were removed, the services of an expert veterinary surgeon were called in who testified that the horses ranged from 15 to 30 years, or past the guessing age, instead of being horses 5 or 6 years of age as claimed by the assured.

At the close of the investigation which extended over weeks, we called the attention of Hon. Claude R. Porter, U. S. district attorney for the Southern district of Iowa, to the evidence and an information was filed in the Federal court for conspiracy to use the mails for the purpose of defrauding an insurance company.

As a result of this action Grant Napier alias J. D. Lewis, Mrs. Grant Napier alias Lilly Lewis, Anna Napier alias Ann Morgan and Oscar Napier alias O. K. Wilson were indicted by the federal grand jury.

Mrs. Lilly Napier alias Lilly Lewis was apprehended by the government officials, entered a plea of guilty and was sentenced to the Federal penitentiary in Kansas for a term of two years. The others mentioned are fugitives from justice and have not as yet been apprehended.

In this particular case we feel that the department has been instrumental in breaking up the operations of one of the most dangerous gangs in the Middle West.

HEDRICK, KEOKUK COUNTY.

On June 5, 1916, about one A. M., a fire broke out in the garage of E. O. Thorne. Investigation was made by this department and the local officers which resulted in the arrest of one John Shaffer. At the preliminary hearing Shaffer was held to the grand jury. Shaffer was indicted on a charge of breaking and entering, also for arson. Previous to this fire Shaffer had been arrested and charged with breaking and entering the same garage. On this charge he was tried at the October term, 1916, and was convicted and sentenced to Anamosa for a period of ten years. The two indictments for the alleged crime committed on June 5, 1916, are still pending.

DES MOINES, POLK COUNTY.

On June 9, 1916, a fire occurred in a residence at 31st and Center Streets. Soon after the fire George Jackson, 15 years old, made a confession to

City Detective McDonald that he, Jackson, set the fire. On June 24, 1916, young Jackson was sent to the industrial school for boys at Eldora.

SIoux CITY, WOODBURY COUNTY.

On the night of July 3, 1916, a fire broke out in the grocery store of Sam Manfito. After an investigation, Manfito was arrested charged with setting the fire and was held to the grand jury. This case is still pending.

SANBORN, O'BRIEN COUNTY.

During the months of July, August and September, 1916, a series of 16 fires occurred in Sanborn which aroused great concern, so that this department was appealed to for help. After a thorough investigation Ralph Benham, Donald Irving, Dick Hoffman, Louis Bernier and John Falkenkamp, boys ranging in ages from 7 to 13 years, made written confessions to a representative of this office to the effect that they set the fires in question. Information was filed against the boys and they were held to appear before the judge of the juvenile court at the November term at which time they were paroled. No suspicious fires have since been reported from that locality.

EAGLE GROVE, WRIGHT COUNTY.

In July and August, 1916, a series of fires occurred in the business district of Eagle Grove. An investigation was being made by a representative of this office in connection with the local officers which resulted in a written confession being made by Rue Codner to the chief of police at Eagle Grove to the effect that he, Codner, set the fires. On October 9, 1916, Codner was indicted and entered a plea of guilty and was fined \$300 and sentenced to four months in jail. One of the peculiar circumstances in connection with this case is that Codner was a member of the fire company at the time the fires were set.

VILLISCA, MONTGOMERY COUNTY.

On August 13, 1916, about 9:15 P. M., a fire occurred which destroyed a dwelling house and contents owned and occupied by Alva Patton. After an investigation by this department, Patton made a written confession that he set the fire for the purpose of collecting the insurance. Patton was indicted and entered a plea of guilty and was fined \$150 and sentenced to jail for a period of six months.

CEDAR RAPIDS, LINN COUNTY.

During the month of August, 1916, a series of 15 fires occurred at Cedar Rapids which proved to be the work of a boy named Clarence Wiese, who in 1914 was sent to Eldora on a charge of arson and who at the time these fires occurred was out on parole. After the fires of August, 1916, Wiese was sent to the institution for feeble minded children at Glenwood.

MAHASKA COUNTY.

During the months of August and September, 1916, a series of barn fires occurred in Mahaska, Keokuk and Washington counties. A thorough

investigation was being made by this department and on October 14, 1916, one Jesse Montgomery of White Oak township, Mahaska county, was arraigned before the commissioners of insanity of Mahaska county, who on October 16, 1916, committed him to the insane hospital at Mt. Pleasant. Montgomery had been mentally deranged for several years and there were some very strong circumstances which tended to show that Montgomery was responsible for some of these fires. In any event no suspicious fires have been reported from that neighborhood since his detention.

KEOKUK, LEE COUNTY.

On September 6, 1916, about 12:30 A. M., a fire occurred which partly destroyed the dwelling house and contents occupied by H. DeWayne Smith. After an investigation by a representative of this office Smith was arrested and arraigned before the Superior Court but was released on the ground of insufficient evidence.

SIOUX CITY, WOODBURY COUNTY.

On the night of October 2, 1916, a fire occurred in a motion picture show operated by J. Waters and George Ammerman which resulted in the arrest of both Waters and Ammerman for setting the fire. Both Waters and Ammerman are under indictment.

PERRY, DALLAS COUNTY.

On October 13, 1916, about one A. M., a fire destroyed a barn occupied by Mrs. A. Woodard. An investigation was made by a representative of this department, who took the statement of one Albert Little, who admitted that he had been prowling around these premises in the middle of the night and was also under the influence of liquor. Previously Little had been committed to the hospital for inebriates at Knoxville on a plea of guilty of having set fires to barns in Perry, and at the time of the fire in question Little was out on parole. At the close of this investigation Little was returned to the hospital for inebriates for the remainder of his term, which will expire July 23, 1917.

CASS TOWNSHIP, HARRISON COUNTY.

During the fall of 1916 a series of barn fires occurred in the vicinity of Persia. The farmers organized and guarded their property and their vigilance resulted in the arrest of John Coffman, 23 years old, who confessed to the local officers to the setting of part of the fires in question. Coffman was adjudged insane and committed to the insane hospital at Clarinda November 1, 1916.

DIAMOND LAKE TOWNSHIP, DICKINSON COUNTY.

On December 18, 1916, about one A. M., a fire occurred in the residence of one Ld. Dierks which entirely destroyed the building and contents. At first Dierks claimed that when he arrived home that night someone shot him in the arm. Dierks then went to the neighbors and called the doctor,

claiming that previous to the fire he had received blackhand letters demanding money. The sheriff of Dickinson county became suspicious and very active, as a result of which a confession was made by Dierks on January 1, 1917, that he had shot himself in the arm after having set the house on fire by the use of kerosene which he had poured over some old clothes. On January 2, 1917, Dierks pleaded guilty to a charge of setting fire with intent to burn and was fined \$500 and sentenced to one day in jail. Dierks also signed a waiver on \$3,000 insurance on building and contents.

Not only were more convictions secured in 1916 than in any previous year, but the percentage of such convictions, based upon the prosecutions instituted, was much greater than during any similar period since the creation of the department.

Much of this result was due to the experience and skill of my deputy and assistants in gathering evidence and securing confessions from many of the guilty parties.

STATISTICAL INFORMATION—TABLE I.

The footings of this table have been briefly set out in the introductory portion of this report. By months the fire losses and the number of fires reported to this office for the year 1916 were as follows:

Month.	No. of Fires.	Loss.
January	435	\$ 918,269
February	463	852,341
March	510	403,458
April	318	375,954
May	268	276,580
June	182	238,221
July	326	383,105
August	345	384,171
September	355	540,282
October	309	267,503
November	338	368,030
December	622	983,328
Total	4,471	\$5,991,242

The large fire loss for the month of January is accounted for by the two fires which occurred at Ottumwa and Muscatine involving losses aggregating \$345,027.

The large fire loss during the month of February is accounted for by a fire at Dubuque which destroyed property to the value of \$349,561.

The excessive fire loss during the month of December is accounted for by three fires occurring in Cedar Rapids, Creston and Oskaloosa in which there was an aggregate loss of \$412,740.

The total loss sustained during the months of January, February and December amounted to almost 46% of the entire fire loss of the state.

TABLE II.

This table contains a list of the kinds of structures destroyed or damaged, the value of the buildings, the damage thereto, the value of the contents, the damage thereto, and the character of the buildings destroyed or damaged.

Classified by use, the ten highest classes of property affected by fires come in the following order:

Kind of Structure.	Number.	Loss.
Dwellings	2,222	\$1,208,135
Barns	578	802,522
Stores	367	1,493,150
Shops	101	100,038
Sheds	93	9,821
Garages	86	128,032
Offices and office buildings.....	69	207,300
Restaurants and cafes	67	73,184
Automobiles	65	15,551
Schoolhouses	52	85,095
Total	3,700	\$4,122,878

Comparing some of the figures in the above table with those pertaining to the same classes of property set out in the report for the year 1915, we note the following:

There was an increase of 411 in the number of dwellings destroyed or damaged and the aggregate loss is \$184,733 greater than in 1915.

The number of barns destroyed or damaged was 83 greater, and the damage thereto \$222,732 greater than 1915.

The increase in the number of fires affecting dwellings and barns and also in the increased damage thereto is largely accounted for by the fact that while the summer of 1915 was quite wet that of a great portion of 1916 was dry.

There was a most encouraging reduction in the damage resulting from store fires as compared with that of 1915. While there was an increase of 9 in the number of store fires reported, the

damage to buildings and contents during the last year was \$495,604 less than in 1915.

While there was an increase of 9 in the number of schoolhouses destroyed or damaged, there was a decrease of \$12,754 in the amount of damage to buildings and contents.

There was also an increase of 21 in the number of churches destroyed or damaged, and an increase in the damage to buildings and contents of this character amounting to \$63,774.

One of the causes which contributes to church and schoolhouse fires is the indifferent and sometimes poor janitor service which too often prevails in these buildings. An added danger to the larger school buildings is the general introduction of domestic science and industrial training. These added dangers should be carefully safeguarded against.

TABLE III.

This table contains a summary of the causes of the fires reported, the number of properties destroyed or damaged from each cause, and the amount of damage to the buildings and contents. Classified in their order by number, the ten highest classes are as follows:

Cause.	Number.	Loss.
Unknown	901	\$2,456,260
Sparks from flue	824	233,696
Adjoining fires	435	913,869
Defective flues	348	345,801
Lightning	177	290,294
Spontaneous combustion	153	209,153
Incendiary and probably incendiary.....	133	247,263
Children and matches	97	24,156
Smoker's carelessness	75	34,718
Match carelessness	71	21,853
Total	3,214	\$4,777,063

RECOMMENDATIONS.

Based upon experience during my incumbency of the present office in dealing with fire hazardous conditions, I would most respectfully urge the need of legislation along the following lines:

1. Provision for the inspection both state and local of electric wiring. This is made necessary by reason of the constantly increasing use of electricity not only for light but for heat and power and the increasing losses resulting from defective electric wiring.

2. The almost universal use of gasoline and the consequent menace both to property and to life resulting from such use necessitates the enactment of a gasoline storage law, or a law making it mandatory upon municipalities to make provision by ordinance for such storage.

3. Standardization of chimneys, flues and roofs in cities and towns, and providing that no shingle roofs be permitted hereafter upon buildings in cities of a certain class.

The old fashioned shingle roof is not only a constant fire menace but experience has shown that it is a most potent force in promoting conflagrations of which there were several in the United States during the past year.

4. A law regulating moving picture shows, specifying the construction of the booth, the number of exits, width of aisles, seating, etc.

5. Provision for the inspection of gasoline and carbide lighting systems.

6. Inasmuch as fully 90% of the fire alarms in all cities and towns are given by telephone, there is need of a law prescribing the duties and responsibility of telephone companies and operators in the matter of receiving and promptly turning in fire alarms.

7. I renew the recommendation made in my Fourth Annual Report that there is need of a law prohibiting the leasing of a building for human occupancy unless it measures up to a certain standard both as respects sanitation and safety from fire.

Our inspection work has afforded us opportunities to see much of the life of the poor in our cities and towns. While it might be a hardship to compel a man who owns the modest cabin or shack he occupies to give up its use, there is no excuse for permitting the well-to-do landlord to lease a building to others unless the same is reasonably fit for human habitation.

CONCLUSION.

The problems that press for solution in our state and nation are social and economic rather than political.

The need of the administrative arm of our government is *efficiency*, and the highest efficiency is attained only through specialization.

We are spending hundreds of millions in preparing for a possible foe three thousand miles away. Should we begrudge a few thou-

sand to fight the "Red Plague" which by day and by night is threatening the property and the lives of our people?

I desire to acknowledge the hearty co-operation and support accorded the office by chiefs of fire departments and others with whom we have come into official relationship.

The fire marshal law is not a failure. The fact that notwithstanding the introduction of many fire producing agencies into our mode of living, there has been an actual reduction in Iowa's fire loss during the past four years while during the same period the aggregate fire loss of the country has increased gives me encouragement and hope for the future.

TABLE NO. I.

Showing Number of Fires Reported by Counties and Cities of More Than 10,000, Value of Buildings and Contents Involved, Damage to Buildings and Contents, Total Insurance on Buildings and Contents, Number of Fires Partially Covered by Insurance, Amount of Excess of Loss Over Insurance, Number of Fires Affecting Property Without Any Insurance and Total Loss Upon Property Not Covered by Insurance.

Counties and Cities of 10,000 and Over	No. of fires	Value of buildings and contents	Damage to buildings and contents	Total insurance on buildings and contents	No. of fires partially covered by insurance	Excess of loss over insurance	No. of fires without insurance	Loss
Adair	23	\$ 126,020	\$ 36,811	\$ 89,750	15	9,809	2	\$ 1,900
Adams	21	50,655	18,367	35,555	10	4,050	1	25
Allamakee	17	33,985	17,473	18,625	7	8,703	3	1,103
Appanoose	85	264,811	78,782	170,544	33	16,842	12	7,700
Audubon	11	21,530	10,413	18,175	4	2,630	3	75
Benton	60	195,635	102,764	92,944	31	80,289	19	22,950
Black Hawk— Waterloo	89	535,921	47,530	354,928	16	7,960	8	887
Bal. Black Hawk Co.	39	120,120	60,794	81,368	20	11,517	4	1,000
Boone—Boone	34	138,795	11,605	85,850	2	1,746	5	1,671
Bal. Boone Co.	23	40,780	15,222	21,574	11	6,848	1	95
Bremer	26	226,931	36,479	140,050	10	10,160		
Buchanan	15	29,063	18,993	15,860	8	7,513	1	35
Buena Vista	24	77,380	35,478	37,510	12	17,580	3	5,530
Butler	20	45,260	25,303	29,098	13	10,527	2	305
Calhoun	31	144,900	57,740	84,209	14	18,670		
Carroll	26	172,190	65,916	108,862	14	17,964	1	1,450
Cass	26	103,985	54,521	47,306	13	31,984	1	15
Cedar	19	49,618	29,160	30,770	10	10,348	2	233
Cerro Gordo— Mason City	47	263,210	37,018	168,825	7	2,045	11	875
Bal. Cerro Gordo Co.	16	44,990	26,538	31,213	11	6,187	1	200
Cherokee	24	90,820	66,320	50,692	16	26,743	5	1,950
Chickasaw	14	78,590	17,120	55,833	7	6,647	2	970
Clarke	19	89,237	46,306	35,787	12	18,418	2	55
Clay	20	114,457	70,616	59,050	11	26,595	3	2,220
Clayton	34	115,554	66,967	80,187	18	24,972	5	2,955
Clinton—Clinton	51	123,450	23,154	87,500	7	5,470	8	1,495
Bal. Clinton Co.	10	34,175	29,015	25,600	8	6,525		
Crawford	28	112,350	80,620	69,190	17	23,810	5	9,290
Dallas	35	171,175	23,355	105,080	10	6,955	6	340
Davis	30	69,876	33,067	41,668	15	12,108	3	325
Decatur	45	116,254	90,218	60,695	33	35,969	8	5,735
Delaware	19	73,285	62,430	34,145	14	33,315	2	410
Des Moines— Burlington	54	470,725	59,824	353,450	8	1,150		
Bal. Des Moines Co.	11	25,240	11,250	14,875	8	4,265	1	15
Dickinson	15	100,395	13,510	51,000	8	4,770	1	125
Dubuque—Dubuque	50	795,865	392,815	595,575	12	18,389	1	50
Bal. Dubuque Co.	10	110,715	87,685	23,850	6	76,955		
Emmet	19	35,229	11,479	22,068	9	4,894	3	125
Fayette	61	305,795	99,248	207,815	25	20,425	2	4,035
Floyd	29	100,710	24,078	57,080	8	8,536	5	4,265
Franklin	14	46,880	31,023	25,114	8	11,766	1	15
Fre蒙特	27	61,316	43,198	41,400	15	15,900	3	1,025
Greene	22	74,990	25,305	33,715	11	8,935	3	1,735
Grundy	20	56,675	29,375	47,240	8	2,155	3	335

TABLE No. 1—Continued

Counties and Cities of 10,000 and Over	No. of fires	Value of buildings and contents	Damage to buildings and contents	Total insurance on buildings and contents	No. of fires partially covered by insurance	Excess of loss over insurance	No. of fires without insurance	Loss
Guthrie	21	57,140	44,220	31,840	16	18,900	2	240
Hamilton	27	139,385	33,200	60,950	15	12,330	3	460
Hancock	9	13,925	10,170	8,985	6	4,140		
Hardin	38	145,017	63,920	75,554	20	29,409	6	8,370
Harrison	44	115,447	49,927	57,055	18	25,172	9	11,917
Henry	13	29,935	10,068	17,900	5	2,208	1	575
Howard	12	35,100	10,682	21,875	5	4,910	1	35
Humboldt	6	22,925	5,275	10,500	2	2,165	2	865
Ida	7	17,350	5,385	7,500	3	1,595	1	20
Iowa	22	99,119	47,679	57,735	10	22,554	5	9,370
Jackson	26	82,190	28,354	41,450	12	10,857	4	27
Jasper	65	222,730	76,433	119,020	27	20,055	5	2,475
Jefferson	36	103,324	39,157	55,580	20	22,520	5	15,960
Johnson— Iowa City	34	379,890	147,970	217,180	5	23,500		
Bal. Johnson Co.	22	39,185	25,352	23,405	15	10,975	2	650
Jones	22	111,315	23,845	36,250	13	8,415	3	695
Keokuk	33	90,481	36,228	35,641	14	19,825	7	3,080
Kossuth	15	42,987	23,961	17,733	8	22,267	2	8,875
Lee—Ft. Madison	21	179,221	32,645	54,250	2	17,734	3	16,355
Keokuk	64	184,076	16,718	132,040	8	1,175	5	365
Bal. Lee Co.	7	32,400	28,830	8,225	4	21,425	2	18,650
Linn— Cedar Rapids	191	1,150,463	264,661	729,200	28	57,910	45	16,950
Bal. Linn Co.	32	86,380	47,538	55,093	16	17,332	3	715
Louisa	18	24,667	20,872	14,461	11	8,956	3	1,800
Lucas	39	118,204	55,577	76,638	15	13,256	2	90
Lyon	11	50,500	24,654	26,540	8	10,660		
Madison	25	77,425	14,825	49,325	10	5,470	1	900
Mahaska— Oskaloosa	38	399,750	161,496	306,350	9	18,175	1	2,000
Bal. Mahaska Co.	28	50,195	39,175	29,321	18	15,534	1	4,000
Marion	39	125,575	45,525	75,830	19	18,005	2	605
Marshall— Marshalltown	36	157,917	14,960	98,525	8	3,592	6	1,917
Bal. Marshall Co.	16	91,725	37,155	46,900	10	16,715	1	90
Mills	23	51,775	35,036	32,300	13	7,961	5	785
Mitchell	13	36,130	11,731	15,203	5	5,367	2	55
Monona	21	57,775	25,575	29,950	7	10,150	8	3,910
Monroe	49	166,750	87,901	97,370	29	24,995	4	3,375
Montgomery	36	104,405	34,835	70,830	15	7,455	5	560
Muscatine— Muscatine	66	450,560	127,925	266,215	13	24,091	5	400
Bal. Muscatine Co.	13	32,890	21,625	17,523	6	10,045	2	160
O'Brien	15	46,850	8,378	20,425	6	3,403	4	1,078
Osceola	5	10,450	9,565	5,690	4	4,085	1	75
Page	53	289,600	61,437	151,725	24	23,130	2	105
Palo Alto	11	75,225	7,530	18,900	3	1,750	3	150
Plymouth	31	89,535	49,860	55,906	20	17,633	3	3,000
Pocahontas	23	71,045	45,278	40,442	14	17,853	2	2,463
Polk—Des Moines	577	4,927,519	148,957	2,624,775	51	24,243	78	17,440
Bal. Polk Co.	52	99,390	53,700	66,900	20	19,166	8	3,440
Pottawattamie— Council Bluffs	98	528,238	64,314	311,430	18	10,208	10	1,753
Bal. Pottawat- tamie Co.	28	65,120	43,451	41,369	14	14,996	4	2,820
Poweshiek	40	119,160	22,849	64,020	6	5,015	4	115
Ringgold	26	45,890	30,691	28,125	16	10,640	2	100
Sac	23	72,610	33,373	30,365	8	17,200	4	680
Scott—Davenport	172	1,252,920	71,776	876,250	11	3,060	23	1,190

TABLE No. 1—Continued

Counties and Cities of 10,000 and Over	No. of fires	Value of buildings and contents	Damage to buildings and contents	Total insurance on buildings and contents	No. of fires partially covered by insurance	Excess of loss over insurance	No. of fires without insurance	Loss
Bal. Scott Co.---	20	46,500	35,746	34,145	9	18,230	3	7,910
Shelby	21	56,440	29,470	32,662	8	12,463	2	1,085
Stony	21	52,534	40,644	23,740	13	20,047	2	4,888
Stony	55	173,281	43,258	94,845	13	15,179	14	4,610
Taylor	28	134,430	44,675	50,020	13	16,410	6	505
Union	17	33,700	17,700	33,600	10	7,475	1	100
Van Buren	83	298,737	197,141	168,250	22	61,560	4	1,810
Wapello—Ottumwa.	11	16,575	11,213	10,775	8	3,862	1	180
Wapello Co.	95	889,664	323,083	665,932	4	1,830	1	2,550
Warren	21	37,890	19,657	21,071	13	7,909	2	2,350
Washington	48	113,221	60,322	60,230	26	18,421	4	2,350
Wayne	18	36,700	21,640	21,640	10	8,450	4	1,700
Webster	17	39,725	6,730	29,300	3	2,885	4	1,025
W. Dodge	37	286,394	73,077	177,100	17	21,154	1	1,300
Bal. Webster Co.	24	90,992	76,363	48,119	18	34,424	3	3,300
Winnebago	15	36,065	25,300	19,280	8	11,485	3	4,120
Winnebago	13	42,100	19,514	24,620	8	7,550	3	1,200
Woodbury	223	1,308,905	134,395	878,425	23	27,812	27	1,565
Stony City	13	23,820	8,360	15,800	5	2,670	3	570
Bal. Woodbury Co.	6	26,710	10,966	13,800	3	3,760	3	570
Worth	27	45,422	18,846	36,088	10	7,309	7	1,975
Wright								
Totals	4,471	\$22,916,172	\$ 5,391,242	\$13,750,331	1,487	\$ 1,749,696	534	\$206,568

TABLE NO. II.

Showing the Nature and Character of the Buildings or Properties Destroyed or Damaged, the Value of Each, the Damage Thereto, the Value of the Contents of Each and the Damage Thereto, the Kind of Material of Which Each was Constructed and Whether the Loss was Total or Partial.

	No. of fires	Buildings		Contents		Character of Buildings Affected								
		Value	Damage	Value	Damage	Wood	Brick	Cement or stone	Loss on Buildings		Loss on Contents			
									Total	Partial	Total	Partial		
Amphitheatres	2	3,300	3,150			2			1	1				
Automobiles	65	62,800	15,351	2,000	200	65			10	54				1
Bakeries	7	17,550	3,820	11,550	3,133	2			6	6				3
Banks	7	103,300	1,950	102,900	222	2			1	5				3
Barns	573	543,358	478,380	363,839	324,142	573		2	448	125	372	114	4	3
Boats	5	3,950	921	2,300	1,435	5			1	4	1			4
Boat houses	4	900	550	375	135	4			1	3	1			3
Bottling works	3	19,000	9,027	39,300	24,650	1	1		1	3				3
Brickyards, kilns and tile factories	2	5,700	4,755	5,200	5,200	1			1	1	1			1
Bridges	2	20,030	40			2			1	1				1
Cars—Box cars	13	26,900	12,405	11,640	11,150	13			3	10	4			1
Bunk cars	9	1,925	781	755	365	6			3	5	2			2
Express cars	1	1,200	200	6,000	1,500	1			1	1				1
Fruit and vegetable cars	1	2,000	25			1			1	1				1
Kindling cars	1	300	100	50	50	1			1	1	1			1
Mail cars	1	3,000	800			1			1	1				1
Passenger cars	1	1,500	1,200			1			1	1				1
Refrigerator cars	6	13,690	1,161	5,375	1,325	6			1	6				4
Street cars	3	10,500	26			3			3	3				3
Way cars	1	800	100			1			1	1				1
Car barn	1	1,600	1,600	11,543	10,838	1			1	1				1
Cement houses	2	550	60	300	200	2				2				1
Churches	41	439,000	140,101	41,675	16,325	25	13	3	6	35	6	13		13
City and township halls	1	350	80			1			1	1				1
Cleaning and dyeing establishments	14	65,550	2,544	26,475	2,177	7	5	2	2	8	2	11		11
Coal bins and storage	7	25,150	11,142	11,040	11,005	7			2	5	1			2
Coal and scale office	1			700	700	1				1				1
Colleges and college dormitories	7	175,000	32,415	56,739	5,193	1	6			6				6
Creameries	7	13,200	10,130	10,200	9,700	6	1		5	2	4			1

TABLE No. II—Continued

	No. of fires	Buildings		Contents		Character of Buildings Affected						
		Value	Damage	Value	Damage	Wood	Brick	Cement or stone	Loss on Buildings		Loss on Contents	
									Total	Partial	Total	Partial
Depots	6	17,307	7,830	1,880	951	5	1		2	4	2	3
Dredging machines	2	8,000	8,000	6,000	6,000	2			2		1	
Drilling machines	1	500	10			1				1		
Elevators	15	58,600	47,020	55,984	42,186	14	1		9	4	7	6
Engine and boiler rooms	8	9,375	1,985	17,330	564	6	2		1	6		5
Engine houses	4	6,361	4,166	9,000	2,000	3	1		2	2		2
Factories—Auto parts factory	1	3,500	1,500	11,000	5,000	1				1		1
Brown paper factory	1	30,000	50	10,000		1				1		
Button factories	4	4,400	1,100	2,800	1,560	4			1	3	1	2
Candy factories	2	9,300	244	13,500	1,213	1	1			2		2
Carpet and rug factory	1	500	2			1				1		
Carriage factory	1	12,000	950	15,000	1,000	1	1			1		1
Cement block factory	1	500	10	1,200		1				1		
Cigar factory	4	42,000	5,038	14,150	4,570	1	3			4		2
Cigar box factory	1	7,000	190	4,500	954	1	1			1		1
Clay products factory	1	8,000	6,500	12,000	7,000	1				1		1
Condensed milk factory	1	20,000	20	90,000	15	1				1		1
Cracker factory	1			120,000	132	1	1					1
Fertilizer plants	2	10,500	7,150	62,000	60,050	2			1	1	1	1
Furniture factories	2	110,000	2,040	128,000	4,299		2			2		2
Glove factories	2	7,000	3,900	51,000	30,950	1		1	1	1		2
Hardware factories	1			70,000	100		1			1		1
Hay rack factories	2	1,000	1,000	1,600	900	2			1			2
Husking peg factory	1	8,000	15	9,000	25		1			1		1
Implement factories	2	8,500	1,525	12,000	1,856	1	1			2		2
Ice cream factories	3	19,000	386	7,200	600	1		2		3		2
Mattress factories	2	2,000	25	2,800	232		2			1		2
Medicine factory	1	56,000	100	56,000	400		1			1		1
Paint factory	2	18,000	5,075	25,000	22,000	1	1			2		1
Pickle factory	1	30,000	50				1			1		
Sash and door factories	2	112,000	846	175,000	3,076	1	1			2		2
Shirt and overall factory	1	75,000	300	150,000	69		1			1		1
Starch factory	1	10,000	500	50,000	1,000		1			1		1
Tent and awning factory	1	15,000	100	25,000	100		1			1		1
Vacant factory building	1	500	25			1				1		
Wagon factory	1	77,000	77,000	317,000	272,561		1		1			1

Washing machine factory	1	15,000	20	40,000	10		1			1		1
Fence	1	50	7			1				1		
Foundries	9	54,000	710	86,000	400	2	7			9		3
Freight houses	3	13,500	7,625	5,400	5,400	2	1		1	2		
Garages	86	128,825	41,171	242,556	86,911	58	20	8	34	44	21	46
Gas plants	2	15,000	1,835	8,000	2,185	1	1			2		1
Granaries and corn cribs	14	7,785	6,395	7,720	6,430	14			12	2	9	5
Greenhouses	2	1,550	600	1,000	1,000	2				2		
Gymnasiums	1	2,500	2,500	1,000	1,000	1			1			
Hay, grain and straw stacks	30			6,374	5,786						27	3
Hay barracks or sheds	4	1,005	1,005	695	695	4			4		4	
Hen houses	15	6,155	3,765	285	215	15			7	8		2
Hog houses	7	3,070	3,070	1,941	1,941	7			7		5	
Hospitals	3	30,000	65	1,500	25	2	1			3		1
Hotels	41	486,900	133,395	105,450	50,458	23	18		7	32	1	29
Houses—Apartment houses	42	423,229	15,672	101,792	14,713	13	28	1	3	24	8	21
Boarding houses	5	21,000	160	3,500	135	2	3			5		2
Dwellings	2,222	4,670,640	859,892	1,115,964	348,243	2,104	101	17	448	1,702	225	1,043
Flats	9	87,500	778	21,700	110	2	6			9		3
Fraternity houses	2	19,000	310	3,000	500	2				2		1
Rooming houses	34	263,200	8,322	25,905	2,097	20	14			31		23
Summer kitchens	10	1,350	1,025	1,350	1,145	10			6	4	6	4
Ice houses	8	5,850	3,750	6,690	780	8			5	2	3	4
Incubator and brooder	1	12	12			1			1			1
Indoor baseball court	1	6,000	950	1,200	600	1	1			1		1
Jails	3	23,200	390	500		1	1	1	1	2		
Laundries	8	82,700	5,250	89,000	4,144	3	5		2	3	1	6
Light and power plants	6	8,850	5,910	18,950	8,683	3	2	1	3	3	1	4
Livery and feed barns	11	35,600	23,798	31,385	21,121	9	1	1	8	3	5	6
Lodge halls and club houses	19	114,700	63,040	40,993	35,333	6	13		6	5	9	7
Lumber—pile of	1	100	100			1			1			
Lumber offices	2	1,000	400	150	25	2				2		1
Lumber sheds	1	500	155	2,500	247	1				1		1
Lumber yards	12	55,100	24,530	197,870	101,356	12			7	4	6	6
Machine sheds	6	1,185	1,185	10,790	10,452	6			6		3	3
Meadows, grass and pastures	2		40	40							2	
Mills	6	34,900	34,900	27,500	24,300	6			6		3	3
Motion picture theaters	19	110,700	10,815	42,600	8,716	3	16		3	9	3	12
News stand	1	2,500	1,125	2,180	1,420	1				1		1
Nurse's homes	2	41,000	3,005			1	1			2		
Offices and office buildings	69	949,850	133,105	172,088	74,195	5	64		3	23	35	22
Oil houses	6	2,425	410	3,750	490	6			1	5	2	4
Oil tank	1	2,900	1,900	2,000	2,000		1			1	1	
Ore separators	1	8,000	8,000	10,000	10,000	1			1		1	
Orphanages	1	35,000	55				1			1		
Outhouses	1	25	10			1				1		

TABLE No. II--Continued

	No. of fires	Buildings		Contents		Character of Buildings Affected						
		Value	Damage	Value	Damage	Wood	Brick	Cement or stone	Loss on Buildings		Loss on Contents	
									Total	Partial	Total	Partial
Photograph galleries	3	5,400	2,900	2,900	2,300	3			1	2	2	1
Planing and saw mills	3	45,000	600			2	1			3		
Pool halls and bowling alleys	24	93,450	10,009	54,400	5,436	16	9		7	12	6	13
Post offices	6	9,150	4,703	1,575	1,225	5	1		4	3	1	2
Printing and publishing plants	11	91,900	2,589	242,500	12,813	5	6		1	3	1	5
Produce houses	4	9,400	3,000	7,500	2,350	3	1		1	3		4
Pump houses	5	1,125	215	1,465	80	4	1			5		3
Pumping station	1	1,000	100	5,000	250			1		1		1
Railroad ties	4			2,342	642	4					3	
Reformatory (cooper shop)	1	49,000	100	10,675	75			1		1		1
Restaurants and cafes	67	293,700	34,144	93,234	39,040	41	26		17	43	16	40
Round houses	1	1,000	100			1				1		
Salvation Army hall	1			200	180		1					1
Salt houses	2	250	50	75		2				2		
Sand house	1	25	25			1				1		
Scale house	1	100	100							1		
School houses	52	895,026	73,647	37,915	11,448	36	15	1	33	19	24	9
Section house	1	300	150	200	20	1				1		1
Sheds	93	12,120	6,468	5,723	3,353	92	1		51	41	28	14
Shingles—pile of	1			20	20	1					1	
Shops—Auto repair shops	2	1,600	35	4,500	1,300	1	1			1		2
Barber shops	21	98,300	7,492	27,625	4,521	12	9		4	16	2	13
Bicycle and motorcycle shops	4	12,700	825	7,500	1,143	3	1			4		2
Blacksmith shops	22	14,000	8,997	16,950	9,480	20	2		12	8	8	8
Carpenter shops	10	4,950	3,255	5,975	4,275	10			6	4	5	2
Cobbler shops	3	5,350	425	1,050	350	2	1		1	2	1	1
Electrical shops	1	250	150	50	50	1				1		
Harness shops	6	6,050	5,590	16,000	14,875	6			4	2	3	2
Junk shops	3	2,500	1,849	23,933	10,750	3			1			3
Machine shops	4	14,000	1,355	10,900	650	2	2			3		2
Paint shop	1	1,500	150	200	25		1			1		1
Pawn shop	3	9,000	839	35,000	7,330		3			2		3
Plumbing shops	7	23,250	1,331	22,350	2,033	3	4		1	5		6
Shoe shining shops	1	250	100	1,200	950	1				1		1
Tailor shops	5	90,400	360	36,800	6,200		5			3		4

Tin shops	3	2,000	1,010	3,550	1,888	2	1		1	1		3
Trunk repair shop	1	500	20	1,500	252	1				1		1
Wagon shops	3	1,000	60	3,100	92	2	1			2		2
Woodworking shop	1	4,000	5	2,000	6	1				1		1
Skating rinks	3	9,000	7,000	3,900	3,500	3			2	1		1
Slaughter houses	1	175	175	25	25	1			1			1
Smoke houses	6	2,310	120	1,613	1,235	5	1		2	3		3
Stock yards	3	5,100	463	272	272	3			1	2		1
Storage houses	40	175,750	15,689	85,389	22,000	33	6	1	17	23	7	19
Stores—Auto salesrooms	1	10,000	5,000	12,500	3,351	1				1		1
Barbers' supplies	1			13,500	250		1					1
Book stores	2			16,000	16,000		2				2	
Butchers' supplies	1			90,000	1,000		1					1
Candy stores	11	35,175	13,545	33,900	13,607	7	3	1	1	8	1	10
Cheese and macaroni	1	8,000	500	800	500	1				1		1
China stores	1			70,000	10		1					1
Cigar stores	5	55,025	495	9,100	5,875		5			4		3
Clothing stores	20	304,300	12,960	216,130	80,123	3	16	1	1	16	1	16
Dental supply house	1			14,000	12,000		1					1
Drug stores	30	207,700	27,499	210,106	104,388	8	21	1	5	18	9	20
Dry goods stores	14	129,500	70,233	632,389	257,421	2	12		2	5	1	13
Electrical supply stores	7	50,420	1,730	27,880	5,898	2	4	1	1	6	1	5
Flour and feed stores	7	9,200	3,997	18,800	12,587	5	1	1	2	5	2	5
Fruit stores	2	3,000	900	2,300	1,123	2			1	1	1	1
Fruit—wholesale	1	15,000	800	30,000	8,000							1
Furniture stores	14	138,600	19,179	78,700	22,887	7	7		3	10	1	10
General merchandise stores	60	203,550	85,162	523,792	271,318	41	19		33	19	22	35
Grocery stores	70	312,000	57,005	238,935	83,277	45	24	1	8	52	7	55
Hardware stores	12	54,450	10,114	55,225	24,195	7	5		4	7	1	8
Ice cream parlors	2	2,500	600	4,000	1,165		2			1		2
Implement stores	13	29,600	15,125	54,100	26,385	10	3		5	8	2	9
Jewelry stores	8	53,250	2,642	60,800	28,687	2	6		1	4	1	7
Kerosene burner demonstration	1	1,000	5			1				1		
Ladies' furnishing stores	5	41,000	3,044	58,400	30,379	1	4			3	1	4
Leather house	1	10,000	65			1				1		
Marble and monument stores	1	1,000	10							1		
Meat markets	27	90,000	11,250	92,475	12,199	16	11		7	16	6	16
Men's furnishing stores	2	30,000	160	13,000	275		2			2		1
Millinery stores	8	32,600	1,982	18,400	9,338	4	4		1	5		7
Music stores	2	12,500	200	15,240	740	1	1			1	1	1
Notion stores	5	25,800	2,625	22,000	12,875		5		1	3	1	3
Paper—wholesale	1	12,000	250	2,500	2,000		1			1		1
Paint and paper store	1	3,500	32	3,250	50		1			1		1
Phonograph store	1	12,000	2,094	50,000	5,917		1			1		1
Piano store	1	75,000	1,100			1				1		1
Poultry, butter and eggs	4	2,775	1,980	6,750	760	3	1		2	1	2	2

TABLE No. II--Continued

	No. of fires	Buildings		Contents		Character of Buildings Affected						
		Value	Damage	Value	Damage	Wood	Brick	Cement or Stone	Loss on Buildings		Loss on Contents	
									Total	Partial	Total	Partial
Seed stores	2	15,000	25	8,000	15	1	1	1	1	1	1	1
Shoe stores	12	77,500	2,976	112,503	51,915	11	11	1	1	1	11	1
Tea and coffee store	1	25,000	20	2,000	250	1	1	1	1	1	1	1
Iron cent stores	3	69,900	11,175	42,000	11,800	3	3	3	3	3	3	3
Vacant store buildings	5	54,700	1,075	2,000	1,000	1	4	1	4	1	4	1
Telephone offices	1	5,000	15	2,100	750	3	1	1	1	1	1	1
Telephone and telegraph poles	4	6,700	1,110	1,290	590	3	1	1	3	3	1	1
Telephone cable and equipment	4	6,700	1,110	1,290	400	4	1	1	4	2	2	1
Temp bars	2	31,000	525	600	200	1	1	1	2	2	1	1
Temporary partition	1	75	75	205	95	1	1	1	1	1	1	1
Tents and awnings	6	350	105	295	95	2	6	1	3	4	1	3
Theaters	9	61,500	19,675	22,500	10,723	3	3	1	3	4	2	5
Threshing machines	3	2,900	2,150	250	250	2	2	2	2	1	1	1
Tool houses	9	1,385	1,085	1,550	1,365	9	9	2	5	4	6	1
Undertaking parlors	4	11,200	1,268	8,000	3,115	2	2	2	2	3	3	3
Wagons and tools	1	165	165	69,125	13,050	1	1	2	1	1	1	1
Warehouses	15	41,100	6,625	69,125	13,050	13	2	2	6	8	7	7
Totals	4,471	\$14,496,203	\$2,932,295	\$8,419,969	\$3,059,087	3,703	676	58	1,359	2,783	996	1,954

*Canvas.

TABLE NO. III.

Origin	Number of fires	Loss
Acetylene explosion	4	\$ 50
Acetylene pipe leak	1	5,000
Adjoining fires	435	913,869
Alcohol stove	2	93
Ashes against wood	18	7,650
Ashes in basement	3	1,010
Ashes in wooden receptacle	2	350
Automobile or motorcycle backfire	35	8,152
Automobile wreck	1	400
Bed too near stove	1	300
Blacksmith forge	4	970
Blow torch	11	6,067
Boiler too near wood	1	45,000
Bonfires	37	9,967
Burning brush and leaves	4	423
Burning insects in hen house	2	345
Burning meadows or grass	6	1,589
Burning rubbish	18	15,372
Candle Carelessness	6	1,860
Charcoal fire	2	1,740
Charging electric car in garage	1	875
Chemical explosion	1	60
Children and matches	97	24,156
Children playing with fire	6	7,496
Christmas trees and decorations	4	314
Clothing near gas or gasoline stove	1	10
Clothing on steam radiator	1	50
Clothing, rags or bedding near stove or pipe	39	12,489
Coffee urn in restaurant	2	304
Curtains blowing into flame	11	1,615
Defective boiler	3	2,824
Defective electric wiring	70	258,496
Defective electric wiring in street car	3	820
Defective fireplace	25	4,666
Defective flues	348	345,801
Defective furnace	16	19,100
Defective gas heater	2	115
Defective gas stove	2	155
Defective gasoline engine	1	1,200
Defective gasoline lighting system	3	290
Defective gasoline soldering pot	1	15
Defective hot air pipes	6	987
Defective oil or gasoline stoves	12	1,705
Defective oven in bakery	1	409
Defective pressure tank kerosene burner	1	105
Defective radiator in auto	1	1,085
Defective stove	18	7,615
Defective stovepipe	11	5,760
Drunkard's carelessness	2	250
Electric heater carelessness	3	569
Electric iron carelessness	12	47,869
Eradicating kerosene spot on floor by burning	1	10
Explosion of benzene	1	10
Explosion of dust in paint factory	1	27,000
Explosion of dust in shredding machine	1	2,000
Explosion of engine in light plant	1	2,950
Explosion of gas generator	1	50
Explosion of gas stove	2	179
Explosion of gasoline engine	2	5,200
Explosion of gasoline peanut roaster	1	2,436
Explosion of gasoline soldering plot	1	6,000
Explosion of gasoline torch	1	716
Explosion of gasoline stove	27	12,098

TABLE No. III--Continued

Origin	Number of fires	Loss
Explosion of hot water coils in range.....	2	107
Explosion of kerosene oil heater	2	276
Explosion of kerosene oil stove	20	7,669
Filling auto gasoline tank by lantern light.....	3	2,650
Fire smoldering in wall from previous day.....	1	450
Fireworks	10	2,372
Friction of machinery	4	17,605
Fumigation	6	6,939
Furnace explosion	1	16,900
Furnace or pipes too near wood	16	12,900
Fuse plug blow out.....	1	98
Gas explosion	1	3,020
Gas or electric heater near woodwork	2	1,426
Gas or gasoline jet flame	2	120
Gas iron carelessness	2	3,110
Gas leak	4	933
Gasoline carelessness	8	1,405
Gasoline—cleaning with	5	824
Gasoline engine backfire	4	14,685
Gasoline explosion	21	5,739
Gasoline iron explosion	1	100
Gasoline lamp explosion	1	125
Gasoline leak	2	1,850
Gasoline or oil stove carelessness	33	14,561
Grease on stove	5	3,585
Heating beeswax and turpentine on stove.....	1	10
Heating linseed oil on stove	1	8
Heating paint on stove	1	60
Heating tar on stove	2	1,425
Heating varnish on stove	2	291
Hot iron against wood	3	489
Hot pulley in hay loader	1	1,430
Incendiary and probably incendiary.....	133	247,263
Incubator	7	926
Jack-o'-lantern	2	652
Kerosene in auto radiator	1	50
Kindling or wood near stove or furnace.....	12	12,615
Lamp or lantern carelessness	9	3,175
Lamp or lantern explosion	22	27,784
Lamp or lantern upset	7	2,973
Leaky joint in automobile	3	515
Lighted match or torch near gasoline.....	5	9,350
Lightning	177	290,294
Lightning running in on wiring	4	300
Live coal carelessness	2	2,946
Live coals dropping from grate or stove.....	10	5,430
Live coals dropping from locomotive	2	2,447
Live wire	1	1,200
Looking for gas leak with light.....	3	22
Match carelessness	71	21,833
Matches ignited by sun's rays through window.....	1	50
Motion picture films	5	1,331
Oil heating stove carelessness	16	3,430
Oily rag carelessness	12	14,143
Oil spilled near stove or furnace	2	525
Oil stove near wall or woodwork	11	691
Overheated boiler	1	25
Overheated cupola	2	497
Overheated electric motor	6	187

TABLE No. III--Continued

Origin	Number of fires	Loss
Overheated engine in auto	1	810
Overheated exhaust pipe in auto	1	700
Overheated feed cooker	4	7,141
Overheated flue	15	30,198
Overheated furnace	40	81,543
Overheated gas plate	1	22
Overheated hot air pipes	12	4,981
Overheated japanning furnace	1	100
Overheated kiln	3	9,895
Overheated shaft bearing in elevator	1	25
Overheated shaft in milking machine	1	6,200
Overheated steam pipes and radiators.....	3	6,489
Overheated stove	58	56,312
Overheated stovepipe	23	13,112
Overheated sugar dryer	1	500
Overheated tire furnace in carriage works.....	1	1,950
Paint vat boiling over in factory.....	1	75
Papers or rags in flue hole	6	638
Papers on stove	1	510
Photographic flash light	1	10
Railway wreck	2	1,100
Return steam pipe through coal bin	1	19,000
Rubbish in basement	13	2,065
Rubbish in or near building	3	1,923
Rubbish near stove	1	650
Short circuit in automobile	17	3,547
Short circuit in electric motor	3	1,537
Short circuit in gasoline engine	1	2,500
Smoke house fires	8	3,701
Smoker's carelessness	75	34,718
Smoking out bees	3	165
Sparks from cupola	4	183
Sparks from dust fan in laundry	1	569
Sparks from electric motor	2	8,520
Sparks from engine filling silo	2	1,840
Sparks from feed cooker	1	1,300
Sparks from flue	824	283,636
Sparks from flue hole in chimney	5	3,905
Sparks from furnace	1	10
Sparks from gasoline engine	5	11,965
Sparks from locomotive	45	33,097
Sparks from piece metal	1	7
Sparks from stove	5	536
Sparks from traction engine	11	5,895
Sparrow's nest near chimney	2	4,484
Spontaneous combustion	153	209,153
Starting fire with coal oil	13	6,925
Starting fire with gasoline instead of coal oil	2	190
Stove blow out	4	4,925
Stove too near unprotected wood	43	16,431
Stovepipe too near unprotected wood	14	11,503
Stove upset	5	750
Stovepipe through wall or roof.....	37	26,375
Supposed mice and matches	9	5,425
Sweeping compound in hot air pipe.....	1	11
Tar kettle boiling over.....	1	10
Telephone wires crossed by high voltage trolley wires.....	1	5
Thawing frozen water pipes	23	3,710
Torch carelessness	4	5,458
Tramps	10	26,980
Unknown	901	2,456,260
Vulcanizing machine	7	18,940
Totals	4,471	\$ 5,991,242

TABLE NO. IV.

Giving the Cities and Towns in Which Inspections of Dilapidated Buildings and Inflammable Conditions Have Been Made During the Year 1916, the Number of Places Inspected at Each Point and the Number and Kind of Orders Issued in Connection Therewith.

CITY	Date	Number inspections	Remove	Repair	Change	Cleanup and repair	Cleanup
Ackley	March 10	46	1	11	3	8	19
Ackley	Nov. 20	1					1
Akron	Aug. 14				1		
Albia	Jan. 25	1	1				
Albia	April 26	1					1
Algona	April 11	3			3		
Ames	Aug. 14						1
Andrew	June 8				1		
Arispe	Feb. 8	2			1		1
Attica	April 4				1		
Bedford	Feb. 16	2					1
Bedford	Aug. 18	3		1			1
Bloomfield	March 21	1		1			
Boone	May 25		1				
Boone	Sept. 27	3		1			1
Brooklyn	July 25	1	1				
Buffalo Center	June 14	2	1				1
Burlington	Jan. 5	2					
Calmar	June 23	2					2
Cedar Rapids	Dec. 19	12	11			1	
Centerville	Feb. 18	2			2		
Chariton	Jan. 25	13	3		4		6
Chariton	May 10	1	1				
Chariton	Nov. 17	2			1	1	
Chariton	Dec. 21	1					
Charles City	Aug. 29	5	1	1	1		
Cincinnati	Aug. 17	5	2			1	
Clarinda	April 19		1				
Clinton	June 10	2					
Colfax	Jan. 12	1					
Corning	Oct. 13	12		1	2	3	6
Council Bluffs	June 2	1	1				
Cresco	June 22	8			6		2
Creston	Sept. 22	2	1				
Cumberland	May 10	5	1	2		1	1
Cushing	May 1				1		
Davenport	June 9	16			13		
Davenport	Oct. 18	1				1	
Davis City	Aug. 18	7		6	1		
Decatur	Oct. 6	1					1
Decorah	June 22	1	1				
Denver	May 25	5	2				
Des Moines	Jan. 4	1			1		
Des Moines	Feb. 4	2					2
Des Moines	April 24	2					2
Des Moines	May 8	5	4				
Des Moines	May 9	1		1			
Des Moines	May 18	2	2				
Des Moines	June 9	1	1				
Des Moines	June 15	1				1	
Des Moines	July 7	1				1	
Des Moines	July 14	4				3	
Des Moines	Aug. 7	1					1
Des Moines	Aug. 15	1	1				
Des Moines	Aug. 15	1					1
Des Moines	Aug. 29	2					2

TABLE No. IV--Continued

CITY	Date	Number inspections	Remove	Repair	Change	Cleanup and repair	Cleanup
Des Moines	Sept. 13	3					2
Des Moines	Sept. 29	1					1
Des Moines	Oct. 10	1	1				
Des Moines	Oct. 14	1		1			
Des Moines	Dec. 7	2		1			
Des Moines	Dec. 8	1					
Des Moines	Dec. 9	1			1		
De Witt	June 28	2			2		
Dundee	March 18		1				
Dunlap	Jan. 28	1					
Eagle Grove	April 11	6		1	1		2
Earlham	July 11	15				4	10
Earling	Dec. 20				1		
Exira	April 1				1		
Forest City	April 11	1			1		
Fort Dodge	Jan. 20	1		1			
Fort Dodge	May 10	1					
Fort Dodge	Sept. 27	5	1	1			1
Gladbrook	April 4	6	1	1		1	2
Glenwood	Dec. 2	2	1		1		
Hampton	Nov. 4	4	2		1		
Hartley	Nov. 22	2			1	1	
Hartwick	Oct. 21				1		
Hedrick	June 7	2		1			
Hedrick	July 11	2		1			
Hedrick	Dec. 14	5		1			1
Humboldt	Oct. 7	1			1		
Ida Grove	Sept. 7	9	3	1	4		
Iowa City	May 4	1	1				
Iowa Falls	Feb. 25	10	1				9
Jefferson	Feb. 3	65	3	1	9	1	14
Jefferson	March 28	3					3
Knoxville	June 21	2					
Lacona	Sept. 22	20			4		6
Lake City	April 7	5		2		1	1
Lake City	Nov. 10				1		
Lake Mills	June 15	5	3	1			
LaPorte City	June 29	3	1				
Le Claire	Oct. 18	1	1				
Lohrville	Oct. 11	6					6
Lone Tree	July 12						8
Lucas	Feb. 10	3	1				
Lucas	Dec. 13		1				
Lynnvile	March 23	1	1				
McGregor	June 21	2			2		
Madrid	July 12	2	1				
Madrid (near)	Nov. 4	1					
Malvern	Aug. 2				1		
Malvern	Oct. 13	1			1		
Manchester	June 20	2					1
Manilla	May 18						2
Manning	March 29	2					
Manson	Jan. 19	1	1				
Manson	March 29	2	1				
Marathon	Jan. 27	1					
Marengo	March 16	5	4	1			
Marengo	Dec. 18	1	1				
Marion	June 27	1			1		

TABLE No. IV--Continued

CITY	Date	Number Inspections	Remove	Repair	Change	Cleanup and repair	Cleanup
Mason City	Feb. 24	5	3	1			
Mason City	Sept. 14	1					
Mingo	Dec. 27	1			1		
Missouri Valley	Aug. 29	1	1				
Mondamin	Nov. 9	1	1				
Monroe	Jan. 26	5			4	1	
Moorhead	March 10	1					
New Hampton	June 23	3					
New Hartford	May 9						1
New Market	Feb. 21				1		
Newton	Jan. 5	2	1				
Newton	March 10				1		
Northwood	April 26	3	1		1		1
Odebolt	Sept. 7	6		1			5
Onawa	June 2	4	3				
Oskaloosa	Oct. 12	2					2
Oskaloosa	Dec. 22	9	6	1	1		1
Ossian	Aug. 17		1				
Ottumwa	Jan. 13	1		1			
Ottumwa	Jan. 26	1			1		
Ottumwa	April 26	2	1				
Ottumwa	May 9	1	1				
Ottosen	Oct. 10	1					
Pella	March 10	3			1		
Pringhar	Sept. 26	1				1	
Randall	July 18						1
Redfield	Dec. 22			1			
Red Oak	April 13	3	3				
Renwick	April 25				1		
Rippey	July 22	8		1	1	4	
Rock Rapids	Oct. 10	3					3
Rockwell	Feb. 15					1	
Sac City	Aug. 15				10		
Sanborn	Sept. 14	3			2		1
Searsboro	March 23	1			1		
Sheldon	Oct. 10	5	2				3
Sibley	Oct. 10	4		2			2
Sigourney	June 29	2		2			
Sigourney	Oct. 13	1					
Sigourney	Dec. 14	1	1				
Sioux City	June 3	5	2			3	
Slater	May 5	3	1	1		1	
Spencer	Jan. 19	1		1			
Spencer	April 21	1					
St. Ansgar	Aug. 29	2				1	
Stanwood	June 28	2	1		1		
State Center	March 1	7		2	3	1	1
Story City	March 1	1					1
Stratford	Jan. 26	5		3			
Sully	March 23	2				1	1
Sumner	March 8	1					
Storm Lake	June 14	8	4				1
Tama	July 12						1
Tiffin	June 30	1	1				
Toolsboro	April 19	1				1	
Truesdale	Jan. 19	1				1	
Unionville	April 5	1				1	
Valley Junction	March 21	1	1				
Van Wert	June 27	1				1	

TABLE No. IV--Continued

CITY	Date	Number Inspections	Remove	Repair	Change	Cleanup and repair	Cleanup
Villisca	April 13	8	2		2	3	1
Vinton	Jan. 14	5	1	2		1	1
Vinton	May 17	7			1	1	2
Viola	June 7		1				
Walnut	Sept. 9	5			5		
Wapello	April 19	4			3		
Washington	Feb. 10	10	2	1	2	1	1
Waterloo	Feb. 11	1	1				
Waterloo	March 21	1	1				
Waterloo	April 18	9					6
Waterloo	June 29	1			1		
Waukon	June 22	4					1
Waukon	Dec. 5	1					
Webster City	Oct. 4				1		
Webster City	Oct. 24	5		2	1	1	
What Cheer	April 29	1	1				
Whiting	Feb. 26	2			2		
Totals		612	113	62	126	53	157

TABLE NO. V.

Giving Places at Which Investigations of Fires of Suspicious Origin Have Been Made During the Year 1916, and the Date When Such Investigation Began.

County	Place	Date Commencing Investigation
Adair	Adair	February 14
	Near Orient	October 24
Adams	Prescott	February 9
Appanoose	Centerville	February 17
	Centerville	February 18
	Centerville	April 4
	Centerville	October 11
	Near Centerville	December 6
	Jerome	February 18
	Moulton	April 4
	Moulton	May 10
	Nunda	November 15
Benton	Near Unionville	March 20
	Mystic	November 14
	Blairstown	January 25
Black Hawk	LaPorte City	February 11
	LaPorte City	August 30
	Near Cedar Falls	February 10
	Waterloo—3 fires	April 17
	Waterloo	August 28
	Waterloo	August 29
	Waterloo	August 30
Bremer	Waterloo—4 fires	November 28
	Sumner	March 8
Buena Vista	Waverly	October 5
	Storm Lake	August 8
Calhoun	Manson	March 29
Carroll	Manning—2 fires	March 28
	Near Templeton—2 fires	October 25
Cass	Griswold	April 25
Cerro Gordo	Cartersville	February 24
	Mason City	January 11
	Mason City	February 23
Cherokee	Cherokee	January 25
	Cherokee	November 21
Chickasaw	Fredericksburg	October 3
	New Hampton	February 22
Clay	Spencer	January 18
	Spencer	April 20
Clayton	McGregor	July 18
Crawford	Aspinwall	August 28
	Dow City	November 14
Dallas	Perry (near)	April 27
	Perry	July 5
	Perry	October 16
Davis	Paris (near)	August 17
Decatur	Davis City	November 16

TABLE No. V--Continued

County	Place	Date Commencing Investigation
Dubuque	Avenarius	December 6
Fayette	Randallia	March 9
Floyd	Charles City	August 29
Franklin	Alexander	February 25
	Hampton	November 20
Fremont	Thurman (near)	September 18
Greene	Churdan	March 3
	Jefferson	February 1
	Jefferson	February 1
	Jefferson (near)	February 1
Grundy	Washington Township—2 fires	September 6
Guthrie	Guthrie Center (near)	May 11
	Guthrie Center (near)—2 fires	November 27
Hamilton	Stratford	May 3
	Webster Township	January 26
Hancock	Hayfield	September 4
Hardin	Iowa Falls	April 11
	Iowa Falls	November 3
	Wilke	October 6
Harrison	Missouri Valley (near)	November 16
	Persia (near)—3 fires	October 18
Henry	Salem	January 4
	Trenton	November 21
	Wayland	May 1
Jackson	Zwingle	October 31
Jasper	Kellogg Township	September 19
	Mingo	December 27
	Newton	January 5
	Newton	April 24
	Newton	September 5
Johnson	Cou Falls (near)	October 31
	Iowa City	May 3
Keokuk	Harper (near)	September 19
	Hedrick	June 7
	Hedrick	December 12
	Richland Township	September 6
	Sigourney	August 16
	Sigourney	September 20
Lee	Talleyrand (near)	September 19
	Keokuk	January 27
Linn	Keokuk	September 7
	Cedar Rapids	March 1
Louisa	Cedar Rapids (near)	October 30
	Cedar Rapids	December 18
	Cedar Rapids	December 20
	Kenwood Park	June 27
	Marion	December 21
	Columbus City	May 18
Lucas	Chariton	August 24
	Chariton	December 20
	Derby	October 10

TABLE No. V--Continued

County	Place	Date Commencing Investigation
Lyon	George	January 26
Mahaska	Oskaloosa	March 9
	Rose Hill (near)	September 21
Marion	Hamilton	December 30
	Swan (near)	March 14
Marshall	Clemons (near)	July 5
Monona	Moorhead	March 9
	Whiting	February 26
Monroe	Albia (near)	April 5
	Albia	December 28
	Buxton	June 26
	Buxton (near)	August 9
	Rizerville	August 8
Montgomery	Villisca	August 14
O'Brien	Sanborn	April 6
	Sanborn—16 fires	September 21
	Sanborn	November 22
Plymouth	Craig	January 17
	Liberty Township	November 8
Pocahontas	Havelock	March 1
Polk	Altoona (near)	March 13
	Carney	April 24
	Des Moines	March 13
	Des Moines	June 12
	Des Moines	July 17
	Des Moines	August 5
	Des Moines	September 21
	Des Moines	October 3
	Des Moines	October 20
	Des Moines	October 18
	Des Moines	December 2
	Des Moines	December 5
	Des Moines	December 15
	Valley Junction	January 24
Pottawattamie	Council Bluffs	January 6
	Council Bluffs	January 27
	Council Bluffs—4 fires	March 17
	Council Bluffs	June 2
	Dumfries	April 6
	Hancock—2 fires	July 6
Scott	Lewis Township	March 16
	Davenport	January 4
Sioux	Eldridge (near)	November 1
	Carnes	February 24
Story	Maxwell	April 11
	Nevada	March 6
	Slater	December 27
Taylor	Blockton	April 28
	Lenox	February 12
Union	Afton—2 fires	April 6
	Arispe	February 8
	Spaulding	August 16
Wapello	Center Township	April 3
	Ottumwa—3 fires	January 13
	Ottumwa	January 14

TABLE No. V--Continued

County	Place	Date Commencing Investigation
Washington	Kalona	February 10
	Seventy-six Township	August 10
	Seventy-six Township	November 1
	Riverside (near)	October 23
Webster	Washington (near)	April 18
	Fort Dodge	September 26
Winnebago	Lehigh	May 9
	Forest City	April 12
Woodbury	Salix	January 13
	Sioux City—2 fires	January 11
	Sioux City—6 fires	January 14
	Sioux City—6 fires	February 23
	Sioux City—4 fires	June 3
Worth	Sioux City—4 fires	November 6
	Grafton	May 16
Wright	Eagle Grove—5 fires	September 5

