

STATE OF IOWA

1915

REPORT OF THE
STATE FIRE MARSHAL
FOR THE YEAR 1915

OLE O. ROE
State Fire Marshal

DES MOINES
ROBERT HENDERSON, STATE PRINTER
J. M. JAMIESON, STATE BINDER
1916

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 | F. 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, 1916.

Hon. George W. Clarke, 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 fifth annual report of my official acts and of the affairs of this office, covering the period beginning January 1, 1915, and ending December 31, 1915, both dates included.

Ole O. Roe

State Fire Marshal.

Fifth Annual Report, State Fire Marshal

For the year 1915, 3,810 fires were reported to this office involving a loss of \$6,006,914. The property involved in these fires was valued at \$25,811,389. Of the loss thus reported, property to the value of \$4,611,166, was covered by insurance, leaving an excess of loss over insurance amounting to \$1,395,748, and involving 1,189 properties. Included in this excess are 444 properties involving a loss of \$170,473, upon which no insurance was carried.

The number of fires reported in 1915 was 486 less than in 1914, but the total fire loss during 1915 exceeded that of 1914 by \$147,929.

The fire loss of 1915 was less by \$285,731, than that of 1913. The average daily fire loss of the year amounted to \$16,457, and the average loss in each fire was \$1,576.

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

| | |
|------------------------------|-------------|
| January 15, Sioux City..... | \$ 97,593 |
| January 25, Davenport..... | 252,000 |
| February 21, Des Moines..... | 148,300 |
| April 27, Dubuque..... | 161,725 |
| May 15, Logan..... | 116,756 |
| November 15, Fort Dodge..... | 206,875 |
| November 17, Clinton..... | 235,300 |
| December 20, Burlington..... | 90,881 |
| December 29, Davenport..... | 99,043 |
| Total | \$1,408,473 |

The loss sustained in these nine fires exceeds 23 per cent of the total fire loss of the state.

The number of dwellings burned was 1,811, and the loss on buildings was \$740,941, and on the contents \$282,461.

The sound value of these dwellings was reported at \$3,752,915, and that of their contents at \$1,295,712.

The number of barns burned was 495, and the loss on buildings was \$344,054, and on the contents \$235,736.

The sound value of the barns was reported at \$375,880, and that of their contents at \$285,008.

The number of stores burned was 358, and the loss on buildings was \$426,398, and on the contents \$1,562,356.

The sound value of the stores was reported at \$2,556,850, and that of their contents at \$4,794,741.

The number of factories burned was 41, and the loss on buildings was \$195,013, and on the contents \$345,750.

The sound value of the factories damaged was reported at \$699,825, and that of their contents at \$1,341,618.

One hundred six deaths were reported as the direct result of fire. Of this number 38 were women and 48 were children. In 34 cases fatal to life gasoline or coal oil was involved. Nine children were fatally burned as a result of playing with matches or fire, or being in close proximity to a bonfire.

Inspections of buildings and premises to the number of 420 were made in 101 different cities and towns in the state, upon the basis of which there were issued 83 orders to remove buildings, 136 clean-up orders, 37 repair orders, 104 orders to change, and 14 orders to clean and repair, or a total of 374 orders.

One hundred sixty-seven suspicious fires were investigated in 106 separate places in 63 different counties of the state.

In addition to a number of indictments pending from the previous year, mention of which was made in my last report, 32 arrests and prosecutions were had during 1915. Of the cases which came to trial, 4 resulted in convictions and sentences to the penitentiary or reformatory, 4 were paroled by the court after pleas of guilty, 6 were sentenced to the industrial school for boys, 3 were sent to the hospitals for the insane, 9 were acquitted, 2 cases were dismissed by the county attorney, in 3 cases no indictment was found, 1 was released by the local officers upon promise to leave the state, and 5 indictments are still pending. These totals include five cases disposed of on indictments secured the previous year.

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 investigation was commenced.

FIRE PREVENTION EDUCATION.

I have continued to urge upon superintendents and teachers in our public schools the value and importance of the educational work along fire prevention lines required by law.

To this end I caused to be published during the year 25,000 copies of a revised and improved edition of Bulletin No. I, prepared by me for use in the public schools of the state, and have distributed the same to the teachers through the various county and city superintendents.

I have reason to believe that the law is fairly well complied with in most of our schools, although I have had occasional complaints from localities that both fire drills and the giving of instruction in fire causes and fire dangers were neglected. In all such cases a request by me for compliance with the law has been invariably met by assurance that the same would be had.

FIRE PROTECTION.

While great advance has been made in the last four years in the matter of securing effective fire protection, the fire departments in many places are still far from being as efficient as they ought to be.

In too many localities the city authorities are unreasonably parsimonious in their dealings with the question of fire protection, and

the chief is frequently unable to obtain either the apparatus or the men necessary to an efficient fire fighting force.

In all of our larger cities and in many of the smaller ones, the old and faithful fire team has been supplanted by the modern, swift-traveling automobile truck. This is a desirable improvement, for much valuable time is thus saved in reaching the place of the fire.

There is still need, especially in the smaller cities and towns where volunteer fire departments are maintained, of a better system of giving alarms, more frequent drills by the men who constitute the various fire departments, and the frequent testing of the hydrants. The greatest needs of the average fire department, are:

- (a) A water system with sufficient supply and pressure.
- (b) Good, modern apparatus and a system of signals and alarms that will operate promptly and effectively.
- (c) Efficiency and freedom from political favoritism in the make-up of the men who constitute the department.

The modern fire chief must not only fight the blaze but he ought to fight the conditions that produce it. The up-to-date fire chief must be an advocate of Fire Prevention as well as a leader in Fire Protection.

INSURANCE AND FIRE PREVENTION.

The amount of insurance carried by an individual oftentimes bears a very close relation to the care exercised by him in the matter of preventing fires.

The principal insurance hazards are carelessness and crime. These are moral, not physical hazards. They are greatly increased by over-insurance.

Over-insurance tempts the weak and encourages the careless. It places a badge of suspicion upon the honest man who meets with a legitimate loss, and causes his premium contributions to exceed the insurance value received.

The best way to make the careless man careful and the criminal less active is to absolutely prevent these and all others from securing insurance in excess of the value of the property insured.

To this end reform is necessary in our manner of writing insurance. Provision should be made for certain legal qualifications upon the part of the agent, and no risk should be assumed without previous personal inspection. If every property owner were com-

pelled by law to carry at least a small portion of the risk himself, and if every agent who permitted over-insurance were held to the same degree of liability as one who appropriates the money of his principal to his own use, a noticeable reduction in incendiary fires would take place.

As a further means of discouraging carelessness, I most heartily indorse the sentiment of a resolution unanimously adopted by the Tenth Annual Convention of the Fire Marshals' Association of North America in favor of state or municipal legislation designed to assess upon individuals, firms or corporations the cost of extinguishing or attempting to extinguish all fires occurring in the premises of the same, whenever such fires are the result of failure to comply with any law, ordinance, or lawful regulation or requirement of any state or municipal authority enacted or made for the prevention of fire.

ARRESTS AND PROSECUTIONS.

LEMARS, PLYMOUTH COUNTY.

On January 1, 1915, a fire took place at Le Mars destroying certain property owned by one Von Berg. One Wayne Huxtable confessed to Deputy Tracy that he set this fire. Huxtable was indicted by the grand jury of Plymouth County at its January session. When warrant was issued for him, he could not be found. The indictment is still pending.

CEDAR RAPIDS, LINN COUNTY.

Elmer Shea, a boy sixteen years old, to whom reference was made in my last report was committed to the Industrial School for Boys at Eldora on January 26, 1915.

In January, 1915, Orla Clark was indicted by the grand jury of Linn County charged with setting fire to his barber shop. His case came to trial on June 1, 1915, and resulted in a directed verdict in favor of the defendant.

CENTERVILLE, APPANOOSE COUNTY.

On December 9, 1914, a fire occurred in a confectionery store at Centerville. This fire was thoroughly investigated by Assistant Zimmerman with the result that the evidence gathered by him was placed before the grand jury of Appanoose County, which body at its January, 1915, session indicted Allie Joseph. George Seid,

and Charley Albert charging them with the crime of burning to injure the insurer. On February 5, 1915, the trial of Albert and Seid was commenced and on February 14, 1915, the jury returned a verdict of guilty, and each of the defendants was sentenced to serve ten years at the Fort Madison penitentiary. These cases are now pending on appeal in the supreme court.

On April 28, 1915, the case of Allie Joseph was brought to trial. At the conclusion of the evidence, the court directed a verdict for the defendant on the alleged ground that the indictment was defective.

KEOSAUQUA, VAN BUREN COUNTY.

In the month of January, 1915, the grand jury of Van Buren County returned an indictment against Jesse Parker of Keosauqua charging him with the crime of burning to injure the insurer. The case was brought to trial in the month of August, 1915, and resulted in the acquittal of the defendant.

ALBIA, MONROE COUNTY.

On February 24, 1915, Dr. C. G. Hoover was arrested charged with arson. Before a hearing was had on this charge, Dr. Hoover was taken before the commissioners of insanity and was by them adjudged insane, and on February 27, 1915, was committed to the hospital at Mt. Pleasant.

OELWEIN, FAYETTE COUNTY.

On or about March 1, 1915, J. H. Richards and wife were arrested and bound over to await the action of the grand jury, for setting fire to a building with intent to injure the insurer. Both parties were indicted by the grand jury of Fayette County. The trial of Mrs. Richards which was concluded on May 1, 1915, resulted in a verdict of not guilty. The case against Mr. Richards was subsequently dismissed by the county attorney.

DIKE, GRUNDY COUNTY.

On or about March 13, 1915, the grand jury of Grundy County indicted one M. E. Cowell charging him with the burning of a barn and contents occupied by S. E. Mulkins. After a trial lasting from September 6 to 11, 1915, a verdict of acquittal was returned by the jury.

AKRON, PLYMOUTH COUNTY.

On or about March 30, 1915, upon complaint of local officials one Fred Smith was arrested charged with burning an elevator at

Akron. Smith was bound over to the grand jury, but that body failed to return an indictment.

NODAWAY TOWNSHIP, PAGE COUNTY.

In April, 1915, the grand jury of Page County indicted one Clyde Hiser on the charge of arson. Hiser was a boy fourteen years of age who admitted in a confession made to Assistant Frowlek of this department, that he had set fire to a school house in the township for the purpose of "getting even with the teacher." When a bench warrant was issued and placed in the hands of the sheriff, it was discovered Hiser could not be found.

MARION TOWNSHIP, DAVIS COUNTY.

On April 7, 1915, a fire destroyed a dwelling in Marion Township, Davis County, owned by J. F. Hopkins. The evidence gathered pointed to one Walter Smith as the party probably guilty of setting this fire. Smith was subsequently indicted, convicted and sentenced to the penitentiary.

Special credit for securing this conviction is due to the county attorney and the local officials of Davis County.

UNIONVILLE, APPANOOSE COUNTY.

On June 9, 1915, fire destroyed a school house in Udell Township, Union County. Upon complaint of local officials Mrs. Alice Gerlock was arrested charged with the crime of burning the same, and was bound over to await the action of the grand jury. That body, however, failed to find an indictment against her.

ARMSTRONG, EMMET COUNTY.

On or about July 5, 1915, one Godfrey Knight was arrested by the local officials of Armstrong charged with setting fire to the jail at that place. He was, however, released by the authorities there upon the alleged condition that he leave the state.

MAPLETON, MONONA COUNTY.

On August 3, 1915, John B. Folck made a confession to Deputy Tracy of having set seven fires during a period of several years at or near the place where he lived—about nine miles south of Mapleton, Monona County. Young Folck was arrested and bound over to await the action of the grand jury. Upon investigation it was found that his case was one of pyromania and he was committed to the Hospital for the Insane at Cherokee by the commissioners of Monona County.

GREENFIELD, ADAIR COUNTY.

On August 12, 1915, Virgil Havens, a boy sixteen years old, made a confession to Assistant Frowick that he had set three fires in the town of Greenfield. The confession and other evidence gathered was placed in the hands of the county attorney of Adair County who placed the matter before the judge of the district court, with the result that young Havens was paroled to his father during good behavior.

CRESTON, UNION COUNTY.

During the August term of the district court of Union County, Oscar Rosenow and C. L. Lindahl, two young men who had previously been arrested charged with complicity in several fires which had recently taken place in the C., B. & Q. R. R. yards of that city, pleaded guilty to the charge of attempting to set fires to buildings, and each was sentenced to serve three years at the reformatory at Anamosa. The sentences were, however, suspended by the court upon certain conditions.

BOONE COUNTY.

At two o'clock a. m., August 2, 1915, a fire took place in the dwelling house of T. J. Smalley in Des Moines Township, Boone County, doing some damage to the building and contents. This fire was set by one Arthur Lumley, a nephew of Mr. Smalley, who had murdered his uncle and set the building on fire to cover up the crime. Later Lumley confessed to the authorities at Boone and on August 23, 1915, was sentenced to the penitentiary for life.

COUNCIL BLUFFS, POTTAWATTAMIE COUNTY.

On September 3, 1915, John L. Price was indicted by the grand jury of Pottawattamie County charged with the crime of burning an inhabited dwelling in the night time. This indictment is still pending.

In the early part of September, 1915, a number of fires took place in the telephone exchange at Council Bluffs. Shortly thereafter Adolph Elgan, a boy fifteen years old, made confession that he set the fires in question. Elgan was arrested, pleaded guilty in juvenile court and was sentenced to the industrial school for boys at Eldora for six years, but was subsequently paroled to his father during good behavior.

Following an investigation made by Assistant Zimmerman of a fire which occurred at Council Bluffs, on or about November

20, 1915, G. W. Robinson and Mrs. G. W. Robinson were arrested charged with the crime of setting fire, and both were held to await the action of the grand jury, which body at its January, 1916, term returned an indictment against them. This indictment is still pending.

OTTUMWA, WAPELLO COUNTY.

In the latter part of October, 1915, William Pickens and B. H. Hammersley were indicted by the grand jury of Wapello County charging Hammersley with the crime of burning, and Pickens with that of causing to be burned property with intent to injure the insurer. The case of Pickens came to trial on or about November 15, 1915, and resulted in a verdict of acquittal. A little while later Mr. Hammersley was placed on trial and after the evidence upon the part of the state had been introduced a verdict of acquittal was directed by the court.

SIOUX CITY, WOODBURY COUNTY.

A number of fires took place in Sioux City during the summer and fall of 1914 and 1915, all of which appeared to originate in a similar manner and all having indications of incendiarism. An investigation of these fires was made in October, 1915, by Deputy J. A. Tracy with the result that he secured several confessions of complicity in the setting of at least six different fires. Arrests and prosecutions followed with the result that on December 30, 1915, Oscar D. Knudson, Bud Gath and Oscar Johnson were sent to the industrial school for boys at Eldora to there remain until they are twenty-one years of age; and on January 17, 1916, Eddie C. Thorngreen was committed to the same institution.

On the night of October 14, 1915, three barn fires took place in Sioux City. One William Tracy was suspected of setting these fires and was placed under arrest. He was afterwards taken before the commissioners of insanity by which body he was adjudged insane on October 18, 1915, and was committed to the hospital at Cherokee.

IRA, JASPER COUNTY.

On or about December 9, 1915, William Schelker was indicted by the grand jury of Jasper County for setting fire to a barber shop in Ira. This indictment is still pending.

Reference was made in my last report to indictments pending against W. T. Layton of Sigourney, Keokuk County, and Charles Namar, of Des Moines, Polk County.

Layton was tried on February 23 to 25, 1915, and found not guilty by the jury.

The case against Charles Namur came to trial in the Polk County district court on April 1, 1915, and resulted in an acquittal of the defendant by direction of the court on April 5, 1915.

RECORD OF ARRESTS AND PROSECUTIONS FOR ARSON SINCE THE STATE FIRE MARSHAL'S LAW WENT INTO EFFECT, JULY 4, 1911.

| | Last 6 Months of | 1911 | 1912 | 1913 | 1914 | 1915 | Total |
|--|------------------------|------|------|------|------|------|-------|
| Persons sentenced to Penitentiary..... | 3 | 3 | 5 | 6 | 4 | 21 | 42 |
| Committed to Industrial School..... | 1 | 1 | — | 2 | 6 | 10 | 20 |
| Hospital for Inebriates..... | 4 | — | — | — | — | 4 | 4 |
| Committed to Hospitals for Insane..... | 1 | — | 2 | 4 | 3 | 10 | 20 |
| Sentenced to Jail..... | 1 | 1 | 1 | 2 | — | 5 | 10 |
| Fined..... | 1 | — | — | — | — | 1 | 2 |
| Deported..... | — | — | 1 | — | — | 1 | 2 |
| Paroled by the court after sentence..... | — | — | 1 | 2 | 4 | 7 | 14 |
| Confessions on which grand jury failed to indict..... | — | — | 2 | — | — | 2 | 4 |
| Indicted, cases pending..... | — | 1 | — | 2 | 5 | 8 | 16 |
| Total..... | 6 | 10 | 12 | 18 | 22 | 68 | 136 |
| Tried and acquitted..... | 2 | — | 1 | 1 | 9 | 13 | 26 |
| Acquitted, defective indictments..... | — | — | 1 | 1 | 1 | 3 | 6 |
| Dismissed by county attorney..... | 1 | 3 | 3 | 6 | 2 | 15 | 30 |
| Died in jail before final action..... | — | — | — | 1 | — | 1 | 2 |
| Arrested, held to grand jury but no indictment returned..... | — | — | 3 | — | 3 | 6 | 12 |
| Total..... | 3 | 3 | 8 | 9 | 15 | 38 | 76 |
| Total prosecutions..... | 9 | 13 | 20 | 27 | 37 | 106 | 212 |

LAW REVISION AND ENFORCEMENT.

The laws of our state relating to the punishment of arson and other criminal burning should be carefully revised and the punishments provided for graded, so as to more adequately fit the crime or degree of crime than they do at the present time.

Juries not infrequently fail to convict of the crime of arson or of setting fire to injure the insurer, not because there is any real doubt in their minds as to the guilt of the defendant, but because if found guilty of the crime as charged, he might be sentenced to the penitentiary for a long term of years, and this some jurors undertake to prevent by letting the guilty escape altogether.

It should always be borne in mind in the enforcement of all criminal statutes that it is not the severity of the sentence or punishment, but the reasonable certainty of discovery and con-

viction that deters many an evil disposed fellow from committing crime.

We cannot, however, deny that in many localities in our country there exists a condition of helpless law enforcement. We do not punish; we do not correct—we only fume and fret and ask for more law.

Law is not self-enforcing. There must be a radical change in public sentiment touching all kinds of law enforcement. Until there is, America will continue to stand first among civilized nations in unpunished crime.

STATISTICAL INFORMATION.

As a part of this report, I have appended hereto five tables as follows:

TABLE I.

The footings of this table have been briefly set out in the introductory portions of this report. By months the fire losses and the number of fires reported to this office for the year 1915 were as follows:

| Month | No. of Fires | Loss |
|----------------|--------------|-------------|
| January..... | 416 | \$ 972,930 |
| February..... | 246 | 460,426 |
| March..... | 436 | 442,031 |
| April..... | 407 | 593,144 |
| May..... | 258 | 436,682 |
| June..... | 243 | 236,395 |
| July..... | 239 | 287,429 |
| August..... | 269 | 420,763 |
| September..... | 224 | 312,341 |
| October..... | 314 | 346,568 |
| November..... | 346 | 808,080 |
| December..... | 412 | 690,125 |
| Total..... | 3810 | \$6,006,914 |

TABLE II.

Table II 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.

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

| Kind of Structure | Number | Loss |
|------------------------------------|--------|-------------|
| Dwellings | 1,811 | \$1,023,402 |
| Barns | 495 | 579,790 |
| Stores | 358 | 1,988,754 |
| Office buildings and offices | 92 | 165,758 |
| Restaurants and cafes | 74 | 62,519 |
| Shops | 71 | 118,968 |
| Garages | 70 | 92,710 |
| Automobiles | 54 | 16,407 |
| Sheds | 48 | 4,090 |
| Storage houses | 47 | 110,768 |
| Total | 3,120 | \$4,163,266 |

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 1914, we note the following:

The number of dwellings destroyed or damaged is 69 less than in 1914, and the aggregate loss is \$85,358 less than in that year.

There was a most encouraging reduction in the barn fires as well as in the aggregate damage to this class of property. The reduction in the number of barns damaged or destroyed was 199, and the reduction in the loss \$322,392 as compared with the previous year.

This very marked improvement can be attributed to the unusually wet summer season, the absence of many severe electrical storms, and to the greater care exercised, especially by many of the farmers, in preventing barn fires.

The number of store buildings destroyed or damaged was 5 less than that of 1914, but the loss resulting therefrom in 1915 aggregates \$282,035 more than in the preceding year.

There was an increase of 9 in the number of automobile garages burned, and an increase of \$8,020 in the amount of damage to the same.

Fifty-four automobiles were reported as damaged or destroyed, entailing a loss of \$16,407. This does not include a much greater number which were burned while in the garages and whose loss is included in the contents of the latter.

TABLE III.

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

| Cause | Number | Loss |
|---------------------------------------|--------|-------------|
| Unknown | 788 | \$2,550,231 |
| Sparks from flue | 589 | 133,233 |
| Adjoining fires | 348 | 793,018 |
| Defective flues | 330 | 369,721 |
| Lightning | 201 | 257,130 |
| Spontaneous combustion | 139 | 296,028 |
| Match carelessness | 107 | 36,172 |
| Incendiary and probably incendiary .. | 99 | 120,897 |
| Children and matches | 78 | 22,498 |
| Defective electric wiring | 73 | 229,307 |
| Total | 2,752 | \$4,808,246 |

The fires reported as of incendiary or probably incendiary origin during the year 1915 numbered 99 or 2.6 per cent of the total number of fires reported, while the loss from said cause during the year aggregates \$120,897 or 2.01 per cent of the total fire loss of the state.

During the year 1914 the number of incendiary or probably incendiary fires amounted to 2.8 per cent of the total number of fires reported, while the loss from said cause aggregated 2.5 per cent of the total fire loss of the state.

Under the designation "incendiary or probably incendiary" fires are enumerated only those of which there is evidence of incendiarism.

Undoubtedly not a few of the fires whose origin is reported and classified as "unknown" are the result of design.

While the number of fires reported as of "unknown" origin is less by 181 than those that were so designated in last year's report the loss during the year 1915 exceeds that of 1914 by \$242,760.

There were 70 less "lightning" fires in 1915 than in 1914, and the loss incurred by reason of these fires was \$146,503 less than in 1914.

Compared with 1914, there is a decrease in the loss from fires caused by "sparks from flue," and a very slight decrease in the fire damage where "defective flues" is the cause. Both the number of these fires and the resulting damage is entirely too large and could be materially reduced by the exercise of greater care.

Defective electric wiring appears to be an ever increasing source of fire danger. The number of such fires reported in 1915 was larger than ever before, amounting to 73, and the resulting loss to \$229,307.

RECOMMENDATIONS.

Based upon experience during the past four and one-half years in dealing with fire causes, I would respectfully suggest the need of legislation along the following lines:

1. Provision for inspection both state and local of electric wiring. This is made necessary by reason of the constantly increasing number of fires resulting from defective electric wiring.

2. The almost universal use of gasoline and the increasing 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.

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

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

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

7. My deputy and assistants have rendered diligent and faithful service. Had I the means to employ more men, the work of inspection could be greatly enlarged and that of investigation be made more thorough and effective. To this end I would urge an additional appropriation for the support of the department by the next general assembly.

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 | 21 | 79,396 | 48,528 | 48,445 | 18 | 14,960 | 1 | 800 |
| Adams | 48 | 43,450 | 22,355 | 26,100 | 4 | 5,905 | 1 | 1,000 |
| Adairville | 29 | 69,600 | 17,171 | 15,251 | 7 | 1,694 | 1 | 200 |
| Appanoose | 75 | 185,000 | 119,907 | 122,255 | 41 | 28,141 | 3 | 2,300 |
| Ashtabula | 18 | 90,178 | 29,011 | 27,000 | 10 | 12,107 | 2 | 5,786 |
| Benton | 29 | 128,350 | 61,415 | 77,850 | 10 | 14,401 | 1 | 5 |
| Black Hawk | 96 | 704,775 | 186,712 | 549,500 | 14 | 24,383 | 4 | 430 |
| Wetmore | 17 | 24,400 | 18,001 | 22,749 | 5 | 4,851 | 1 | 1,200 |
| Bacon | 38 | 214,700 | 25,728 | 108,479 | 7 | 5,380 | 1 | 200 |
| Bacon Co. | 15 | 32,075 | 16,000 | 25,050 | 7 | 5,425 | 4 | 800 |
| Benson | 12 | 147,300 | 19,567 | 71,401 | 8 | 9,491 | 1 | 142 |
| Bethesda | 16 | 43,000 | 22,000 | 26,000 | 10 | 5,185 | 2 | 135 |
| Burns Valley | 15 | 122,200 | 30,675 | 79,800 | 7 | 12,010 | 7 | 1,621 |
| Butler | 19 | 15,841 | 11,076 | 9,339 | 11 | 5,307 | 5 | 510 |
| Calhoun | 21 | 27,545 | 24,050 | 25,749 | 9 | 8,156 | 4 | 1,074 |
| Carrall | 29 | 79,045 | 49,000 | 49,047 | 10 | 17,723 | 4 | 1,074 |
| Cass | 51 | 200,871 | 115,966 | 107,020 | 17 | 27,055 | 1 | 385 |
| Cedar | 12 | 46,075 | 8,231 | 10,000 | 6 | 2,602 | 3 | 47 |
| Cerro Gordo | 57 | 497,035 | 98,119 | 212,815 | 7 | 1,555 | 3 | 95 |
| Mountain City | 18 | 32,836 | 35,042 | 18,748 | 11 | 8,780 | 4 | 2,025 |
| Cherokee | 18 | 127,550 | 25,000 | 80,000 | 11 | 6,830 | 2 | 221 |
| Chickasaw | 12 | 22,115 | 19,714 | 23,175 | 5 | 2,905 | 1 | 200 |
| Clarke | 10 | 32,490 | 14,371 | 18,065 | 8 | 6,025 | 1 | 500 |
| Clay | 17 | 42,555 | 9,444 | 24,097 | 5 | 2,429 | 3 | 201 |
| Clayton | 22 | 51,825 | 29,785 | 20,100 | 15 | 12,311 | 1 | 225 |
| Clifton-Clifton | 39 | 695,325 | 273,579 | 446,350 | 5 | 42,110 | 3 | 3,285 |
| Clifton Co. | 11 | 32,880 | 18,068 | 18,915 | 8 | 8,495 | 1 | 30 |
| Crawford | 15 | 32,274 | 10,347 | 18,260 | 5 | 7,463 | 4 | 3,278 |
| Dallas | 24 | 514,445 | 132,425 | 115,500 | 18 | 69,100 | 2 | 2,872 |
| Davis | 22 | 47,510 | 24,540 | 38,374 | 12 | 9,900 | 2 | 450 |
| Deatur | 28 | 66,802 | 66,520 | 60,250 | 20 | 21,550 | 4 | 2,000 |
| Delaware | 19 | 55,540 | 30,755 | 26,825 | 16 | 12,425 | 1 | 200 |
| Des Moines | 58 | 455,644 | 129,501 | 358,300 | 13 | 4,779 | 8 | 875 |
| Burlington | 14 | 28,940 | 21,825 | 8,328 | 8 | 5,880 | 1 | 200 |
| Des Moines Co. | 12 | 31,000 | 30,555 | 22,700 | 5 | 17,000 | 1 | 200 |
| Dubuque | 50 | 2,179,790 | 220,500 | 1,507,500 | 11 | 19,550 | 3 | 11,000 |
| Dubuque Co. | 12 | 44,900 | 39,671 | 12,145 | 8 | 9,052 | 1 | 250 |
| Emmet | 21 | 48,000 | 12,441 | 25,250 | 9 | 6,805 | 4 | 2,010 |
| Fayette | 42 | 284,235 | 86,565 | 150,875 | 11 | 9,720 | 8 | 2,430 |
| Floyd | 15 | 54,000 | 25,000 | 37,000 | 9 | 7,540 | 1 | 1,410 |
| Franklin | 12 | 22,800 | 17,000 | 9,270 | 8 | 9,510 | 3 | 1,410 |
| Freemont | 30 | 69,718 | 56,819 | 37,515 | 20 | 29,363 | 1 | 5,274 |
| Genese | 36 | 142,000 | 104,700 | 90,145 | 9 | 36,010 | 3 | 7,000 |
| Grundy | 7 | 16,000 | 8,000 | 12,700 | 3 | 3,000 | 1 | 200 |
| Guthrie | 21 | 39,345 | 22,804 | 22,270 | 14 | 12,000 | 1 | 35 |
| Hamilton | 36 | 279,550 | 127,846 | 120,750 | 19 | 29,780 | 5 | 24,100 |
| Hancock | 10 | 41,140 | 17,356 | 22,875 | 6 | 6,725 | 1 | 600 |

TABLE NO. I—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 con- tents | No. of fires partially covered by insurance | Excess of loss over insurance | No. of fires without insurance | Loss |
|--|--------------|------------------------------------|-------------------------------------|---|--|----------------------------------|-----------------------------------|-------|
| Hardin | 28 | 105,705 | 51,435 | 50,005 | 16 | 12,705 | 1 | 13 |
| Harrison | 42 | 244,010 | 169,707 | 121,750 | 15 | 75,950 | 8 | 42 |
| Henry | 13 | 17,717 | 15,804 | 10,417 | 6 | 7,399 | 4 | 4,021 |
| Howard | 14 | 56,535 | 17,574 | 28,550 | 7 | 2,830 | 1 | 2,830 |
| Humboldt | 9 | 10,590 | 8,300 | 12,285 | 2 | 2,865 | 3 | 475 |
| Ia | 9 | 9,100 | 17,577 | 10,517 | 4 | 4,433 | 1 | 2,275 |
| Iowa | 10 | 25,533 | 8,301 | 17,750 | 1 | 5,875 | 1 | 1,300 |
| Jackson | 27 | 135,950 | 60,797 | 77,400 | 12 | 26,459 | 4 | 601 |
| Jasper | 48 | 250,085 | 78,009 | 91,284 | 19 | 35,190 | 4 | 74 |
| Jefferson | 15 | 35,475 | 12,134 | 39,555 | 6 | 2,650 | 1 | 34 |
| Iowa City | 19 | 85,000 | 15,215 | 49,300 | 5 | 1,100 | 1 | 50 |
| Bal. Johnson Co. | 16 | 45,945 | 29,807 | 29,633 | 12 | 9,807 | 1 | 10 |
| James | 16 | 27,270 | 13,920 | 13,650 | 9 | 5,070 | 1 | 20 |
| Keokuk | 24 | 48,615 | 19,100 | 22,557 | 9 | 10,035 | 1 | 2,340 |
| Kossuth | 24 | 81,470 | 28,280 | 41,255 | 17 | 10,755 | 1 | 201 |
| Lee—Pt. Madison | 25 | 105,500 | 36,291 | 117,066 | 5 | 745 | 3 | 308 |
| Keokuk | 60 | 859,500 | 63,195 | 278,400 | 7 | 6,201 | 1 | 1,960 |
| Bal. Lee Co. | 14 | 25,848 | 23,073 | 18,575 | 8 | 5,648 | 2 | 70 |
| Linn | 122 | 802,005 | 187,388 | 576,053 | 5 | 27,264 | 17 | 1,719 |
| Cedar Rapids | 13 | 51,545 | 5,925 | 28,120 | 4 | 5,620 | 1 | 80 |
| Bal. Linn Co. | 39 | 63,380 | 27,530 | 27,345 | 11 | 17,275 | 4 | 603 |
| Louis | 51 | 161,970 | 60,132 | 105,649 | 24 | 18,900 | 5 | 2,360 |
| Lyon | 14 | 23,637 | 8,792 | 13,400 | 5 | 4,832 | 5 | 2,62 |
| Madison | 19 | 43,555 | 13,915 | 27,700 | 9 | 3,480 | 1 | 50 |
| Bal. Mahaska Co. | 23 | 52,555 | 40,097 | 105,075 | 4 | 2,615 | 3 | 180 |
| Oskaloosa | 32 | 52,555 | 42,025 | 25,225 | 5 | 18,800 | 6 | 1,150 |
| Bal. Mahaska | 28 | 137,548 | 50,685 | 80,450 | 14 | 14,017 | 6 | 1,250 |
| Marion | 38 | 86,150 | 65,300 | 259,000 | 4 | 2,470 | 2 | 30 |
| Marshall | 8 | 25,550 | 11,565 | 13,250 | 5 | 4,330 | 1 | 20 |
| Marshalltown | 16 | 32,225 | 22,217 | 16,500 | 11 | 8,000 | 2 | 1,130 |
| Bal. Marshall Co. | 14 | 70,975 | 25,062 | 45,800 | 9 | 10,175 | 1 | 99 |
| Mills | 7 | 41,950 | 5,218 | 16,400 | 1 | 2,835 | 3 | 1,110 |
| Mitchell | 40 | 295,454 | 63,279 | 380,775 | 12 | 9,335 | 2 | 2,400 |
| Monona | 41 | 135,275 | 59,785 | 73,375 | 17 | 24,535 | 9 | 3,370 |
| Monroe | 43 | 136,275 | 29,161 | 73,000 | 13 | 9,764 | 6 | 871 |
| Montgomery | 13 | 26,240 | 17,765 | 17,220 | 9 | 6,545 | 1 | 1,880 |
| Muscatine | 8 | 20,950 | 6,009 | 12,800 | 4 | 1,880 | 1 | 742 |
| Co. | 3 | 15,842 | 1,807 | 5,500 | 1 | 5,000 | 1 | 500 |
| O'Brien | 40 | 110,048 | 56,005 | 60,500 | 14 | 10,244 | 3 | 880 |
| Oceola | 25 | 75,610 | 14,005 | 46,700 | 8 | 5,940 | 7 | 1,615 |
| Page | 31 | 108,138 | 48,923 | 75,250 | 12 | 22,361 | 5 | 490 |
| Palo Alto | 7 | 19,515 | 2,305 | 7,715 | 3 | 700 | 2 | 130 |
| Plymouth | 431 | 4,940,795 | 283,382 | 3,376,050 | 26 | 6,901 | 47 | 1,590 |
| Pocahontas | 43 | 122,808 | 51,138 | 70,423 | 18 | 11,175 | 1 | 200 |
| Polk—Des Moines | 82 | 579,700 | 48,629 | 402,500 | 16 | 4,130 | 10 | 230 |
| Bal. Polk Co. | 21 | 71,835 | 26,972 | 52,098 | 8 | 6,211 | 6 | 67 |
| Pottawattamie | 24 | 114,330 | 10,860 | 52,007 | 6 | 2,775 | 9 | 107 |
| Connell Bluffs | 23 | 34,310 | 23,048 | 19,808 | 14 | 9,908 | 1 | 100 |
| Bal. Pottawat- | 14 | 72,605 | 26,272 | 48,000 | 8 | 8,225 | 1 | 100 |
| tamie Co. | 174 | 1,224,425 | 428,275 | 608,105 | 7 | 1,414 | 22 | 740 |
| Poweshiek | 21 | 50,290 | 34,329 | 22,549 | 15 | 14,725 | 2 | 1,470 |
| Ringold | 29 | 39,350 | 17,104 | 16,724 | 7 | 4,795 | 1 | 100 |
| Sac | 15 | 47,340 | 16,065 | 25,315 | 9 | 6,300 | 2 | 220 |
| Scott—Davenport | 29 | 85,092 | 33,845 | 41,900 | 16 | 15,020 | 3 | 130 |
| Bal. Scott Co. | 20 | 115,560 | 28,255 | 69,000 | 7 | 12,125 | 6 | 1,150 |
| Shelby | 15 | 47,340 | 16,065 | 25,315 | 9 | 6,300 | 2 | 220 |
| Sioux | 29 | 85,092 | 33,845 | 41,900 | 16 | 15,020 | 3 | 130 |
| Story | 20 | 115,560 | 28,255 | 69,000 | 7 | 12,125 | 6 | 1,150 |
| Tama | 20 | 115,560 | 28,255 | 69,000 | 7 | 12,125 | 6 | 1,150 |

TABLE NO. I—CONTINUED.

| County and City of 10,000 and Over | No. of fires | Value of buildings and contents | Damage to buildings and contents | Total insurance on buildings and con- tents | No. of fires partially covered by insurance | Excess of loss over insurance | No. of fires without insurance | Loss |
|--|--------------|------------------------------------|-------------------------------------|---|--|----------------------------------|-----------------------------------|------------|
| Taylor | 18 | 72,666 | 40,584 | 42,790 | 12 | 7,870 | 1 | 148 |
| Union | 43 | 137,222 | 49,553 | 110,302 | 16 | 15,930 | 1 | 818 |
| Van Buren | 15 | 40,739 | 29,136 | 20,790 | 9 | 19,714 | 1 | 79 |
| Wapello—Ottumwa | 37 | 408,813 | 30,816 | 285,375 | 5 | 540 | 1 | 79 |
| Bal. Wapello Co. | 21 | 26,965 | 24,126 | 21,790 | 13 | 6,460 | 4 | 790 |
| Warren | 22 | 43,409 | 23,060 | 34,675 | 11 | 19,254 | 1 | 120 |
| Washington | 58 | 83,790 | 23,743 | 44,245 | 8 | 5,425 | 7 | 2,292 |
| Wayne | 37 | 96,181 | 62,686 | 50,583 | 22 | 24,543 | 3 | 2,375 |
| Webster | 42 | 504,515 | 241,904 | 375,710 | 8 | 52,780 | 5 | 247 |
| Pt. Dodge | 20 | 55,075 | 26,510 | 20,420 | 13 | 10,705 | 2 | 50 |
| Bal. Webster Co. | 19 | 130,740 | 67,100 | 82,000 | 6 | 21,166 | 4 | 1,085 |
| Winnebago | 14 | 62,800 | 36,223 | 32,000 | 9 | 3,435 | 1 | 1,085 |
| Woodbury | 229 | 2,951,852 | 300,008 | 2,365,007 | 14 | 5,984 | 26 | 3,756 |
| Sioux City | 20 | 84,500 | 46,649 | 54,225 | 13 | 15,050 | 1 | 2,900 |
| Bal. Woodbury | 8 | 37,350 | 15,770 | 15,800 | 4 | 5,000 | 1 | 650 |
| Worth | 18 | 70,950 | 17,732 | 38,860 | 10 | 7,240 | 3 | 1,590 |
| Wright | | | | | | | | |
| Totals | 3,810 | \$25,811,380 | \$6,000,914 | \$16,834,543 | 1,189 | \$ 1,265,748 | 444 | \$ 170,472 |

TABLE NO. II—Continued.

[illegible][illegible][illegible]

TABLE NO. II—Continued.

| | No. of fires | Buildings | | Contents | | Character of buildings affected | | | |
|--------------------------------|--------------|-----------|------------|-----------|------------|---------------------------------|-------------------|---------|------------------|
| | | Value | Percentage | Value | Percentage | Wood | Loss on Buildings | | Loss on Contents |
| | | | | | | | Total | Partial | |
| Auto supply stores | 1 | 32,250 | 2.277 | 39,800 | 282 | | | | |
| Candy stores | 2 | 12,000 | 950 | 13,450 | 4,005 | | | | |
| Cigar stores | 3 | 32,300 | 9,401 | 9,300 | 2,900 | | | | |
| Clothing stores | 4 | 136,000 | 10,000 | 10,410 | 1 | | | | |
| Drug stores | 5 | 136,000 | 10,000 | 10,410 | 1 | | | | |
| Dry goods stores | 6 | 136,000 | 10,000 | 10,410 | 1 | | | | |
| Decorators' supplies—wholesale | 7 | 279,000 | 1,815 | 185,654 | 84,791 | | | | |
| Decorators' stores | 8 | 25,000 | 639 | 14,000 | 542,500 | | | | |
| Fruit stores | 9 | 39,500 | 11,825 | 34,000 | 9,700 | | | | |
| Furniture stores | 10 | 7,700 | 115 | 11,200 | 6,400 | | | | |
| General stores | 11 | 381,200 | 50,068 | 148,280 | 79,025 | | | | |
| General stores—wholesale | 12 | 181,200 | 23,500 | 148,280 | 79,025 | | | | |
| General stores—retail | 13 | 525,500 | 68,568 | 306,720 | 156 | | | | |
| General stores—retail | 14 | 9,000 | 502 | 16,000 | 2,000 | | | | |
| Grocery stores | 15 | 242,500 | 16,553 | 182,650 | 24,008 | | | | |
| Hair stores | 16 | 31,000 | 1,000 | 31,000 | 10 | | | | |
| Hair stores—wholesale | 17 | 214,200 | 27,597 | 1,294,146 | 207,475 | | | | |
| Hair stores—retail | 18 | 37,000 | 2,000 | 21,000 | 11,808 | | | | |
| Implement stores | 19 | 27,150 | 39,162 | 29,800 | 29,800 | | | | |
| Leather goods stores | 20 | 232,000 | 2,800 | 28,000 | 2,800 | | | | |
| Leather goods stores—wholesale | 21 | 2,000 | 2,000 | 17,000 | 4,813 | | | | |
| Leather goods stores—retail | 22 | 2,500 | 5 | 5,000 | 4 | | | | |
| Marble and monument stores | 23 | 4,000 | 396 | 2,000 | 4,100 | | | | |
| Meat—wholesale | 24 | 8,000 | 2,800 | 2,800 | 2,800 | | | | |
| Military stores | 25 | 29,700 | 2,002 | 27,000 | 5,866 | | | | |
| Shoe stores | 26 | 40,000 | 4,614 | 11,500 | 17,905 | | | | |
| Shoe stores—wholesale | 27 | 4,500 | 582 | 4,500 | 642 | | | | |
| Shoe stores—retail | 28 | 4,500 | 582 | 4,500 | 642 | | | | |
| Toy stores | 29 | 32,500 | 684 | 28,000 | 7,000 | | | | |
| Toy stores—wholesale | 30 | 29,150 | 9,143 | 81,000 | 22,790 | | | | |
| Toy stores—retail | 31 | 30,000 | 1,078 | 81,000 | 2,601 | | | | |

[illegible]

TABLE NO. III.

CONTAINING A SUMMARY OF THE ORIGIN AND CAUSES OF THE VARIOUS FIRES REPORTED, THE NUMBER OF EACH, AND THE DAMAGE TO THE BUILDINGS AND CONTENTS SPECIFIED BY CAUSES.

| Origin | Number of fires | Damage to buildings and contents |
|--|-----------------|----------------------------------|
| Acetylene explosion | 1 | 20 |
| Adjoining fire | 348 | 108,091 |
| Alcohol lamp | 1 | 1 |
| Ashes against wood | 10 | 5,712 |
| Ashes in basement | 2 | 25 |
| Ashes in wooden receptacle | 2 | 2,300 |
| Automobile or motorcycle backfire | 29 | 14,480 |
| Baby carriage against stove | 1 | 39 |
| Blacksmith forge | 1 | 12 |
| Blow torch | 10 | 4,375 |
| Boiler too near wood | 1 | 200 |
| Bonfires | 29 | 13,680 |
| Burning brush and leaves | 5 | 1,500 |
| Burning insects in hen house | 1 | 25 |
| Burning meadows or grass | 1 | 2 |
| Burning rubbish | 10 | 7,027 |
| Candle carelessness | 10 | 1,425 |
| Candy boiling over | 1 | 2,500 |
| Chemical explosion | 1 | 35 |
| Child putting electric light in bed | 1 | 35 |
| Children and matches | 78 | 22,426 |
| Children playing with fire | 5 | 1,420 |
| Christmas trees and decorations | 1 | 500 |
| Clothing on hot air register | 2 | 1,175 |
| Clothing near gas or gasoline stove | 20 | 5,225 |
| Clothing or rugs near stove or stovepipe | 2 | 100 |
| Coffee urn in restaurant | 1 | 66 |
| Cotton ignited by sun's rays through window | 1 | 9,642 |
| Curtains blowing into flame | 10 | 10 |
| Defective electric wiring | 72 | 229,307 |
| Defective fireplace | 15 | 2,750 |
| Defective flues | 220 | 200,721 |
| Defective furnace | 15 | 60,452 |
| Defective gas heater | 2 | 250 |
| Defective gas meter | 1 | 1 |
| Defective gasoline engine | 2 | 120 |
| Defective gasoline lighting system | 12 | 32,720 |
| Defective hot air pipes | 2 | 200 |
| Defective oil or gasoline stove | 56 | 3,607 |
| Defective oven in bakery | 5 | 2,571 |
| Defective stove | 14 | 5,220 |
| Defective stovepipe | 18 | 11,407 |
| Electric iron carelessness | 6 | 2,300 |
| Explosion of alcohol | 2 | 25 |
| Explosion of electrical automatic photograph machine | 1 | 13,000 |
| Explosion of kerosene can | 2 | 2,275 |
| Explosion of mill dust | 1 | 50 |
| Explosion of roofing paint | 1 | 200 |
| Explosion of soldering pot | 1 | 125 |
| Explosion of traction engine | 1 | 1,300 |
| Filling lighted alcohol stove | 1 | 21 |
| Fireworks | 18 | 2,600 |
| Friction of machinery | 2 | 25 |
| Fumigation | 1 | 600 |
| Furnace explosion | 1 | 1,200 |
| Furnace or pipes too near wood | 10 | 4,104 |
| Fuse plug blow out in picture booth | 1 | 42 |
| Gas explosion | 2 | 1,225 |
| Gas or electric heater near woodwork | 2 | 1,104 |

TABLE NO. III—CONTINUED.

| Origin | Number of fires | Damage to buildings and contents |
|--|-----------------|----------------------------------|
| Gas or gasoline jet flame | 9 | 5,000 |
| Gas iron carelessness | 1 | 420 |
| Gas leak | 1 | 407 |
| Gas stove too near wood | 1 | 14,800 |
| Gas tank explosion | 1 | 250 |
| Gasoline carelessness | 21 | 23,349 |
| Gasoline—cleaning with | 1 | 1,102 |
| Gasoline drain pipe in boiler room | 1 | 20,000 |
| Gasoline explosion | 30 | 27,006 |
| Gasoline iron explosion | 2 | 1,100 |
| Gasoline lamp explosion | 2 | 50 |
| Gasoline leak | 1 | 4 |
| Gasoline or oil stove carelessness | 19 | 12,872 |
| Gasoline or oil stove explosion | 67 | 23,787 |
| Gasoline torch | 3 | 203 |
| Grass on stove | 7 | 491 |
| Heating paint on stove | 1 | 90 |
| Heating kerosene oil on stove | 1 | 1,900 |
| Hot iron against wood | 1 | 45 |
| Incendiary and probably incendiary | 99 | 120,807 |
| Incubator | 19 | 5,208 |
| Jack-o'-lantern | 1 | 25 |
| Kerosene near stove | 1 | 15 |
| Kindling or wood near stove or furnace | 4 | 19,720 |
| Lamp or lantern carelessness | 9 | 11,415 |
| Lamp or lantern explosion | 29 | 22,388 |
| Lamp or lantern upset | 10 | 2,015 |
| Lamp filled with gasoline | 1 | 216 |
| Leaky joint in automobile | 4 | 1,450 |
| Leak in paint mixer in paint factory | 1 | 23,000 |
| Lightning | 201 | 227,120 |
| Live coal carelessness | 7 | 5,514 |
| Live coal dropping from grate or stove | 6 | 405 |
| Looking for gasoline leak with light | 1 | 15 |
| Match carelessness | 107 | 36,173 |
| Metal in grain | 1 | 6 |
| Motion picture films | 2 | 5,300 |
| Oil heating stove carelessness | 2 | 502 |
| Oil mop in closet | 1 | 200 |
| Oil rag carelessness | 9 | 9,430 |
| Oil stove near wall or woodwork | 5 | 1,070 |
| Overflowing primer on auto | 1 | 275 |
| Overheated auto | 1 | 1,420 |
| Overheated bake oven in factory | 1 | 251,000 |
| Overheated boiler | 1 | 80 |
| Overheated candy furnace | 1 | 1,025 |
| Overheated conveyor | 1 | 700 |
| Overheated espola | 2 | 40 |
| Overheated engine exhaust | 2 | 207 |
| Overheated feed cooker | 2 | 227 |
| Overheated foot warmer | 1 | 15 |
| Overheated fine | 7 | 11,809 |
| Overheated furnace | 23 | 29,919 |
| Overheated glue pot on fire | 1 | 200 |
| Overheated hot air pipes | 13 | 3,900 |
| Overheated kiln | 1 | 20,000 |
| Overheated lamp on rear of auto | 1 | 100 |
| Overheated steam pipe | 2 | 201 |
| Overheated stove | 64 | 47,222 |
| Overheated stove pipe | 17 | 6,335 |
| Overheated water heater | 1 | 45 |

TABLE NO. III—CONTINUED.

| Origin | Number of fires | Damage to buildings from loss of contents |
|---|-----------------|---|
| Paper or rags in fire hole | 1 | 00 |
| Papers on stove | 1 | 10 |
| Rubbish in basement | 7 | 14,500 |
| Rubbish near building | 1 | 20 |
| Salamander | 1 | 40 |
| Smoke house fire | 15 | 7,500 |
| Smoker's carelessness | 67 | 240,150 |
| Smoking out bees | 4 | 600 |
| Sparks from cupola | 1 | 35 |
| Sparks from electric motor | 3 | 500 |
| Sparks from fireplace | 1 | 15 |
| Sparks from flue | 560 | 150,000 |
| Sparks from fire hole in chimney | 1 | 25 |
| Sparks from gasoline engine | 1 | 400 |
| Sparks from kiln | 1 | 10 |
| Sparks from locomotive | 28 | 30,000 |
| Sparks from paint scraper | 1 | 60 |
| Sparks from stove | 3 | 377 |
| Sparks from traction engine | 5 | 1,800 |
| Sparks from type metal melter | 1 | 75 |
| Sparrow's nest near chimney | 2 | 1,500 |
| Spontaneous combustion | 130 | 29,000 |
| Starting fire with coal oil | 19 | 5,400 |
| Starting fire with gasoline instead of coal oil | 5 | 6,300 |
| Stove blow out | 5 | 2,100 |
| Stove polish | 1 | 50 |
| Stove too near unprotected wood | 22 | 12,000 |
| Stove upset | 4 | 400 |
| Stovepipe through wall or roof | 30 | 6,500 |
| Supposed mice and matches | 8 | 10,000 |
| Tailor's iron carelessness | 1 | 60 |
| Tar kettle | 1 | 60 |
| Thawing frozen water pipes | 10 | 6,000 |
| Tornado overturning house | 1 | 1,000 |
| Tramps | 16 | 25,750 |
| Unknown | 788 | 2,500,000 |
| Varnish on or near stove | 2 | 140 |
| Vulcanizing machine | 5 | 4,200 |
| Total | 3,810 | \$ 6,000,000 |

TABLE NO. IV.

GIVING THE CITIES AND TOWNS IN WHICH INSPECTIONS OF DILAPIDATED BUILDINGS AND INFLAMMABLE CONDITIONS HAVE BEEN MADE DURING THE YEAR 1905, THE NUMBER OF PLACES INSPECTED AT EACH POINT AND THE NUMBER AND KIND OF ORDERS ISSUED IN CONNECTION THEREWITH.

| City | Date | No. inspections | Remove | Repair | Change | Clean up and repair | Clean up |
|-------------------|-----------|-----------------|--------|--------|--------|---------------------|----------|
| Atton | Oct. 8 | 1 | | | | | |
| Arkoe | June 24 | 1 | | | 2 | | |
| Albia | Sept. 17 | 3 | | | 3 | | |
| Alden | Dec. 11 | 1 | | | | | |
| Algona | March 18 | 5 | | 4 | 1 | | |
| Atlantic | Feb. 15 | 4 | | | | | 1 |
| Atlantic | June 30 | 1 | 1 | | | | 4 |
| Atlantic | Aug. 4 | 1 | | | | | |
| Auburn | April 9 | 1 | | | | | |
| Altoona | Jan. 30 | 1 | 1 | | 1 | | |
| Baxter | April 20 | | | | | | |
| Bedford | April 29 | | | | | | 1 |
| Bedford | Dec. 7 | 1 | | | | | |
| Bakersburg | March 10 | 3 | | | | | |
| Bonaparte | October 7 | 2 | | | | | |
| Boone | April 15 | 1 | 1 | | 1 | | 3 |
| Boone | June 29 | 1 | | | | | |
| Biggswater | Nov. 9 | 13 | | 8 | 3 | | 7 |
| Britt | Oct. 7 | 2 | | | | | |
| Brooklyn | March 8 | 1 | | | 1 | | |
| Burlington | April 15 | 1 | | | | | |
| Cantril | May 29 | 1 | 1 | | | | |
| Cantril | Nov. 12 | 1 | | 1 | | | |
| Cedar Falls | June 24 | 1 | | 1 | | | |
| Cedar Falls | Dec. 2 | 3 | 1 | | | | |
| Centerville | Jan. 7 | 3 | 3 | | | | |
| Centerville | April 28 | 2 | | | | | |
| Central City | Feb. 26 | 8 | 1 | | 2 | | 1 |
| Chariton | April 27 | 15 | | | | | 13 |
| Charles City | June 25 | 3 | | | | | |
| Clarkeville | Feb. 12 | 1 | | | | | |
| Columbus Junction | Aug. 17 | 6 | | 4 | 2 | | |
| Corydon | July 9 | 1 | | | | | |
| Council Bluffs | April 7 | 23 | | | | | 1 |
| Council Bluffs | June 25 | 2 | | 1 | 8 | | |
| Council Bluffs | Aug. 5 | 2 | 1 | 1 | | | |
| Dallas | Feb. 9 | 1 | | | | | |
| Delmar | Dec. 24 | 1 | | | | | 1 |
| Delmar Junction | May 29 | 2 | 2 | | | | 1 |
| Deloson | Oct. 14 | 8 | 2 | | | | 5 |
| Des Moines | Jan. 21 | 1 | | | | 1 | |
| Des Moines | Jan. 29 | 1 | | | | | |
| Des Moines | March 5 | 1 | | | 1 | | |
| Des Moines | March 8 | 1 | | | | 1 | |
| Des Moines | April 6 | 3 | 2 | | | | 1 |
| Des Moines | March 19 | 10 | | 2 | | | |
| Des Moines | March 23 | 3 | 1 | 2 | | | |
| Des Moines | March 29 | 1 | | | 1 | | |
| Des Moines | May 5 | 2 | | | 2 | | |
| Des Moines | May 22 | 1 | 1 | | | | |
| Des Moines | June 4 | 1 | | | 1 | | |
| Des Moines | July 23 | 1 | | | | | |
| Des Moines | Aug. 2 | 1 | | | | | 1 |
| Des Moines | Aug. 11 | 0 | | | 6 | | |
| Des Moines | Aug. 12 | 1 | | 1 | | | |
| Des Moines | Nov. 24 | 1 | | | | | |
| Des Moines | Dec. 18 | 1 | | | | | |
| Dunlap | May 18 | 4 | 2 | 2 | | | 1 |

TABLE NO. IV—CONTINUED.

| City | Date | No. Inspections | Remove | Repair | Change | Cleanup and repair | Cleanup |
|----------------|----------|-----------------|--------|--------|--------|--------------------|---------|
| Eldora | July 16 | 1 | | | | | |
| Emmetsburg | May 12 | 6 | | | 2 | | |
| Verly | May 19 | 2 | | | 1 | | 1 |
| Forest City | June 22 | 4 | | | | | |
| Fort Dodge | March 17 | 12 | 1 | | 1 | | 1 |
| Fort Dodge | July 15 | 5 | | 1 | 1 | | |
| Fort Dodge | July 20 | | | | 1 | | |
| Guthrie Center | April 22 | | | | 1 | | 1 |
| Guthrie Center | April 27 | | | | | | 1 |
| Hawkeye | May 20 | 4 | | | 2 | | |
| Hedrick | Sept. 2 | 9 | 2 | | 1 | | 2 |
| Hudson | March 3 | 1 | | | 1 | | |
| Humboldt | Nov. 24 | 6 | | 1 | 2 | | 1 |
| Iowa Falls | Aug. 26 | 2 | | | | | |
| Iowa Falls | Nov. 1 | 1 | | | 1 | | |
| Jefferson | July 14 | 1 | | | | | |
| Knoxville | Jan. 8 | 2 | 3 | | | | |
| Knoxville | June 8 | 5 | 2 | | | 2 | |
| LaPorte City | Aug. 18 | 4 | 2 | | | | |
| Liddelldale | April 27 | | | | 1 | | |
| Lone Tree | July 6 | 2 | | | | | 3 |
| Linden | Feb. 10 | 2 | 1 | | | | 1 |
| McCallsburg | Dec. 13 | 1 | | | | | |
| Madrid | Sept. 24 | 10 | | 1 | 1 | | |
| Mapleton | Feb. 5 | 1 | | | | | |
| Mapleton | Aug. 3 | 1 | | | | | |
| Marion | July 3 | 1 | 1 | | | | |
| Marshalltown | May 23 | | | | | | 1 |
| Marshalltown | Nov. 4 | 1 | 1 | | | | |
| Marysville | Dec. 16 | 1 | | | | | 1 |
| Mechanicsville | March 21 | 1 | | | | | |
| Melcher | Feb. 9 | 1 | | | 1 | | |
| Menlo | Oct. 23 | 4 | 1 | 1 | 1 | | |
| Meriden | May 20 | 4 | 1 | | | 1 | |
| Moscow | Oct. 7 | 1 | 1 | | | | |
| Modale | April 17 | 1 | | | | | |
| Moravia | March 11 | 1 | | | 1 | | |
| New Sharon | Oct. 19 | 4 | 4 | | | | |
| Newton | May 15 | 11 | 1 | 1 | 4 | | 1 |
| Newton | June 3 | 8 | | 1 | | 2 | |
| Odebolt | April 9 | 1 | | | | | |
| Osceola | April 20 | 19 | 1 | | 9 | | 9 |
| Osceola | June 3 | 11 | 2 | | 3 | 1 | 2 |
| Osceola | Oct. 9 | 9 | 1 | 1 | 1 | | 1 |
| Osceola | May 19 | 1 | | | 1 | | |
| Ossian | July 2 | 2 | 2 | | | 1 | |
| Oskaloosa | June 24 | 2 | 2 | | | | |
| Oto | Jan. 23 | 1 | 1 | | | | |
| Ottumwa | Oct. 6 | 1 | | | 1 | | |
| Paton | June 25 | 2 | | 1 | | | 1 |
| Persia | Nov. 23 | 2 | | | 1 | | 1 |
| Pleasant Plain | Nov. 6 | 2 | | | | 1 | 1 |
| Postville | Sept. 23 | 7 | 1 | | | | 1 |
| Prairie City | Aug. 17 | 2 | | | 1 | | |
| Red Oak | May 16 | 16 | 1 | 2 | 5 | 1 | 1 |
| Royal | Aug. 2 | 1 | | | 1 | | |
| Ryan | Aug. 18 | 1 | | | | | |

TABLE NO. IV—CONTINUED.

| City | Date | No. Inspections | Remove | Repair | Change | Cleanup and repair | Cleanup |
|------------------|----------|-----------------|--------|--------|--------|--------------------|---------|
| Sac City | Sept. 28 | 1 | | | | | |
| Sergeant Bluff | June 22 | 1 | 1 | | 1 | | 1 |
| Sheldahl | May 20 | 1 | | | | | 2 |
| Shell Rock | Feb. 19 | 1 | | | 2 | | |
| Sigourney | Feb. 26 | 1 | 1 | | | | |
| Sigourney | July 5 | 1 | | 1 | | | |
| Sioux City | June 23 | 1 | 1 | | | | |
| Sioux City | Aug. 4 | 1 | | 1 | | | |
| Slater | May 20 | 1 | | | 1 | | |
| Spencer | May 19 | 1 | | | | | |
| Storm Lake | Jan. 18 | 1 | | | | 1 | |
| Strawberry Point | May 20 | 1 | | | | | |
| Struble | Jan. 14 | 1 | | 1 | 1 | | |
| Sutherland | Oct. 12 | 1 | 2 | | | | 1 |
| Tama | Dec. 22 | 4 | 1 | 1 | 2 | | |
| Thayer | Nov. 3 | 1 | | | | | |
| Tipton | Oct. 14 | 1 | 1 | | | | |
| Valley Junction | March 1 | 6 | | | 2 | | |
| Valley Junction | Oct. 19 | 1 | | | 1 | | 4 |
| Wall Lake | Sept. 9 | 1 | | | | | |
| Washington | Nov. 8 | 4 | 3 | | | | 1 |
| Waterloo | May 19 | 2 | | | | | |
| Waterloo | June 23 | 3 | 12 | | | | 1 |
| Waterloo | Nov. 1 | 1 | | | | | 1 |
| Waverly | Feb. 29 | 1 | | | | | |
| Waverly | March 18 | 1 | | 1 | | | |
| Webster City | Nov. 22 | 1 | | | | | 1 |
| Winchester | Sept. 23 | 2 | 1 | | 2 | | |
| Totals | | 420 | 82 | 37 | 104 | 14 | 136 |

TABLE NO. V.

GIVING PLACES AT WHICH INVESTIGATIONS OF FIRES OF SUSPICIOUS ORIGIN HAVE BEEN MADE DURING THE YEAR 1915, AND THE DATE WHEN SUCH INVESTIGATION BEGAN.

| County | Place | Date Commencing Investigation |
|-------------|---------------------|-------------------------------|
| Adair | Greenfield | August 11 |
| | Bridgewater | November 9 |
| Appanoose | Centerville | January 7 |
| | Near Unionville | June 10 |
| | Cincinnati | July 8 |
| | Plato | July 29 |
| | Darbyville | August 23 |
| | Centerville | September 16 |
| | Numa | December 17 |
| Audubon | Esira | September 30 |
| Benton | Blairtown | April 14 |
| | Blairtown | October 14 |
| Black Hawk | Waterloo | February 12 |
| | Cedar Falls | February 24 |
| | Waterloo | April 20 |
| | Waterloo | September 23 |
| Boone | Boone | April 23 |
| Buena Vista | Storm Lake | January 12 |
| | Storm Lake | January 17 |
| | Alta | March 17 |
| Cass | Washington Township | February 13 |
| | Atlantic | May 6 |
| | Atlantic | June 20 |
| Cerro Gordo | Mason City | January 6 |
| | Mason City | May 7 |
| | Mason City | August 26 |
| | Lime Creek Township | November 2 & 4 |
| | Cartersville | November 11 |
| Chickasaw | Alta Vista | October 5 |
| Clarke | Murray | March 9 |
| | Oseola | November 10 & 20 |
| Crawford | Manilla | February 4 |
| | Deloit | September 8 |
| Dallas | Granger | January 27 |
| | Bouton | December 16 |
| Davis | Bloomfield | July 13 |
| | Floris | December 6 & 7 |
| Decatur | Van Wert | February 27 |
| | Leon | April 12 |
| | Grand River | June 3 |
| | Leon | December 6, 7, & 8 |
| Delaware | Onelda | September 9 |
| Des Moines | Burlington | April 21 |
| | West Burlington | August 26 |
| Dickinson | Millford | August 4 |
| Dubuque | Dubuque | February 25 |
| | Dubuque | April 26 |
| | Luxemburg | November 2 |
| Fayette | Oelwein | February 18 |
| Franklin | Hansell | April 5 |

TABLE NO. V—CONTINUED.

| County | Place | Date Commencing Investigation |
|------------|----------------------|-------------------------------|
| Fremont | Sidney | March 2 |
| | Farquhar | April 14 |
| Grundy | Near Stout | March 8 |
| Guthrie | Bayard—2 fires | May 13 |
| Hamilton | Webster City | March 25 |
| Hardin | Alben | December 11 |
| Harrison | Missouri Valley | April 6 |
| Henty | Wayland | February 11 |
| | Hillsboro | October 27 |
| | Winfield | November 9 |
| Humboldt | Pioneer | December 19 |
| Iowa | Matango | December 2 |
| Jasper | Ira | December 22 |
| Johnson | Iowa City | November 13 |
| Kosciusko | What Cheer—2 fires | June 8 |
| Kossuth | Lotts Creek Township | May 5 |
| | Swea City | September 1 |
| Lee | Montrose | February 9 |
| | Fort Madison | May 24 |
| Linn | Springville | January 13 |
| | Walker | March 20 |
| | Cedar Rapids | April 22 |
| | Cedar Rapids—4 fires | May 1 |
| | Cedar Rapids | May 31 |
| | Cedar Rapids | October 4 |
| | Cedar Rapids | October 20 |
| Louis | Columbus Junction | August 16 |
| Lucas | Chariton | January 22 |
| Madison | Macksburg | September 22 |
| Mahaska | Oskaloosa | March 10 |
| | Oskaloosa | August 16 |
| | Rose Hill | October 26 |
| Marion | Dallas | February 9 |
| | Hamilton | March 4 |
| | Knoxville | July 15 |
| | Hamilton | July 14 |
| Marshall | Marshalltown | February 12 |
| Monona | Near Mapleton | August 2 |
| Monte | Albia | January 6 |
| | Buxton | May 15 |
| | Albia | July 21 |
| | Buxton | September 17 |
| | Melrose | October 8 |
| Montgomery | Grant—10 fires | November 2 & 3 |
| Moscow | Moscow | May 1 |
| Page | Norwich | March 4 |
| Palo Alto | Emmettsburg | June 10 |
| Plymouth | Le Mars | January 14 |
| | Akron | March 2 |
| | Akron | June 21 |

TABLE NO. V—CONTINUED.

| County | Place | Date Commencing Investigation |
|---------------|--------------------|-------------------------------|
| Polk | Walnut Township | January 22 |
| | Des Moines | February 7 |
| | Des Moines | February 17 |
| | Des Moines | April 10 |
| | Des Moines | May 5 |
| | Des Moines | May 11 |
| | Des Moines | May 12 |
| | Des Moines | May 16 |
| | Des Moines | May 26 |
| | Des Moines | May 31 |
| | Des Moines | July 20 |
| | Des Moines | July 22 |
| | Des Moines | September 25 |
| | Des Moines | November 1 |
| | Des Moines | December 10 |
| | Des Moines | December 17 |
| Pottawattamie | Council Bluffs | April 7 |
| | Council Bluffs | August 15 |
| | Council Bluffs | September 7 |
| | Boomer Township | November 25 |
| | Council Bluffs | November 24 |
| Sac | Schaller | September 15 |
| | Sac City | September 25 |
| Scott | Davenport—2 fires | April 12 |
| | Davenport | April 13 |
| | Davenport | July 7 |
| | Bettendorf | September 1 |
| Shelby | Greeley Township | April 1 |
| | Portsmouth | November 12 & 17 |
| Tama | Tama | December 20 |
| Taylor | Mockton | November 1 |
| | Gravity—2 fires | December 8 |
| | Sharpsburg | December 8 |
| | Maloy | December 10 |
| Union | Creston | March 30 |
| Van Buren | Bentonsport | June 9 |
| Wapello | Ottumwa | January 11 |
| | Ottumwa | October 4 |
| | Near Ottumwa | October 6 |
| | Kirkville | December 8 |
| Washington | Near Washington | April 14 |
| | Riverside | November 8 |
| Wayne | Humeston | September 14 |
| Winnebago | Forest City | December 27 |
| Woodbury | Sioux City | January 15 |
| | Sioux City—2 fires | August 5 |
| | Sioux City—3 fires | October 21 |
| | Sioux City | October 29 |

STATE OF IOWA

1916

REPORT OF THE

STATE FIRE MARSHAL

FOR THE YEAR 1916

OLE O. ROE
State Fire Marshal

PUBLISHED BY
THE STATE OF IOWA
DES MOINES