

THIRD ANNUAL REPORT

OF

STATE FIRE MARSHAL

TO THE

GOVERNOR OF IOWA

OLE O. ROE
State Fire Marshal

DES MOINES
ROBERT HENDERSON, STATE PRINTER
1914

THIRD ANNUAL REPORT

STATE OF IOWA,
OFFICE OF STATE FIRE MARSHAL,
Des Moines, February 2, 1914.

HON. GEORGE W. CLARKE, Governor of Iowa.

SIR: In compliance with the provisions of Section 14, Chapter 128, Acts of the Thirty-fourth General Assembly, I have the honor to submit herewith my third annual report of my official acts and of the affairs of this office, covering the period beginning January 1, 1913, and ending December 31, 1913, both dates included.

During the year 1913, 3,609 fires were reported to this office, involving a loss of \$6,292,645. The property involved in these fires was valued at \$22,431,725.

Of the loss thus reported, property to the value of \$4,070,059 was covered by insurance, leaving an excess of loss over insurance of \$2,222,586, and involving 1,378 properties. Included in this excess are 528 properties involving a loss of \$279,037 upon which no insurance was carried.

The daily fire loss during the year amounted to \$17,212, and the average loss in each fire was \$1,743.

During the year seven fires occurred, in each of which the loss exceeded \$100,000, as follows:

	Loss
January 7th, Mason City.....	\$ 121,800
March 20th, Carroll.....	120,000
April 7th, Dubuque.....	349,840
August 20th, Creston	155,300
October 19th, Ottumwa.....	332,790
November 13th, Davenport.....	142,931
November 22d, Atlantic.....	114,000
Total	\$1,336,721

The loss sustained in these seven fires exceeds 21 per cent of the total fire loss of the state during the year 1913.

The number of dwellings burned was 1,524, and the loss on buildings was \$708,151, and on the contents \$293,790. The sound value of these dwellings was reported at \$2,927,257 and that of their contents at \$879,731.

The number of barns burned was 656, and the loss on buildings was \$528,018 and on the contents \$375,809. The sound value of the barns was reported at \$587,511 and that of their contents at \$437,439.

The number of stores burned was 306, and the loss on buildings was \$428,654, and on the contents \$961,558. The sound value of the stores was reported at \$2,371,530 and that of their contents at \$2,612,129.

The number of factories burned was 55, and the loss on buildings was \$159,199 and on the contents \$332,786. The sound value of the factories was reported at \$858,603 and that of their contents at \$1,253,827.

There were 63 deaths reported as the direct result of fire. Of this number 26 were women and 21 were children. In 21 cases fatal to life coal oil or gasoline was involved. Nine children were fatally burned as a result of playing with matches or fire, or being in close proximity to a bonfire.

Five hundred twenty-four inspections of buildings and premises were made in 83 different cities and towns in the state, upon the basis of which there have been issued 153 clean-up orders, 126 repair orders, 47 orders to change, 119 orders to remove buildings, and 57 clean-up and repair orders, or a total of 502 orders.

One hundred ninety-nine suspicious fires were investigated in 72 different counties of the state.

In addition to a number of indictments pending, 23 arrests and prosecutions were had during the year. Of the cases which came to trial, 5 resulted in convictions and sentences to the penitentiary, 1 was given a jail sentence, 1 was deported, 1 was paroled by the court after a plea of guilty, 3 were acquitted, and 1 case was dismissed by the county attorney.

One person was sent to the hospital for the insane. Eight indictments are pending and 3 are under arrest and bound over to await the action of the grand jury.

Twenty-one public addresses on fire prevention were made in various cities and towns of the state, twelve of which were before teachers' institutes.

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.

REPORTS OF FIRES.

There has been a marked improvement both in the promptness with which fires have been reported to this office by those required by law to make reports, and in the completeness of the reports made. This improvement may be accounted for in part by the fact that the Thirty-fifth General Assembly amended the law relative to compensation for making reports.

As the law was originally enacted, no compensation was provided for the reporting of fires to this office by chiefs of fire departments or mayors who received compensation from the city or town which they served. Chapter 224, Acts of the Thirty-fifth General Assembly, amended this by providing for a fee of fifty

cents for each report, without regard to whether the official reporting is paid a salary or not by the municipality he serves.

The same chapter provides a penalty for a failure upon the part of the chief of a fire department, a mayor or township clerk to make the investigation and report required of him. But perhaps the principal cause which has aided in securing more prompt and complete reports is the fact that the work of the department is more generally known and better understood and appreciated by the officials charged with the duty of making these reports, as well as by the public.

Inasmuch as full and correct statistical information concerning causes of the fires which occur in our state is of the highest value in determining the application of remedies or preventives, it is of the utmost importance that this phase of the work be given the most careful attention.

While, as already stated, there has been a marked improvement along this line, I fully realize that the system of making reports of fires is still far from perfect, and I am therefore continuing to use every legitimate means at my command to improve this part of the service.

EDUCATIONAL WORK.

Renewed efforts have been put forth during the past year to give potency and effect to that provision of the law requiring the teachers of our public schools to give instruction in the causes and dangers of fires, as well as to give regular fire drills. To this end, I have sent out additional supplies of Bulletin No. I, prepared for use in the public schools of the state, to all of the superintendents and principals of our graded schools, as well as to the various county superintendents, in sufficient number to place copies of same in the hands of all the teachers. During the months of June, July and August, I personally presented the subject of fire causes and fire dangers, as the same relates to the instruction which is required in the public schools, before teachers' normal institutes in the following counties:

Woodbury, Muscatine, Mahaska, Lucas, Kossuth, Van Buren, Story, Page, Adair, Butler, Plymouth and Cherokee.

While there are no doubt many schools where this subject is not given the attention which the law contemplates, I have reason to believe that the interest in this matter is growing. The draw-

backs to the efficiency of this, as well as of much other work that devolves upon the teacher, are the frequent changes which take place in superintendencies in our public schools, and especially the annual additions of teachers without any experience and without any grasp or comprehension of the educational demands of the times.

We are living in a practical age, an age which demands, and has a right to demand, a practical education. What instruction, may I ask, is more practical than that which teaches the child to be cautious, careful, honest, upright and mindful of the rights of his neighbor? The question, how far education should be practical and how far purely disciplinary, is one which, though new in form, is old in controversy, and we may well leave its academic discussion to the realm of pedagogics. While leaders in educational thought may differ as to the scope and ingredients of a practical education, they generally agree that the present-day demand for such an education must be met. What constitutes a practical education cannot be answered by the theorist. It will ultimately be answered by the practical men and women of this generation. I submit, however, that a knowledge of the principles underlying good, sound substantial building; of the dangers attending improperly installed heating and lighting systems; of the constant menace presented by the promiscuous use of the parlor match; of the danger to which property and life are subjected by the careless smoker; of the great value of cleanliness in and about all buildings and premises; of the nature and danger of gasoline and other highly inflammable substances, and the importance of handling the same with the greatest care; that patriotism need not be expressed in fire and noise; that crime is crime and should be punished; that the moral sensibilities should be trained so that the child will spurn a falsehood and tell the truth at all times; that the will be so strengthened that the future citizen and official may dare to do right and dare to be true in every relation of life; that the greatest civic virtue is obedience to law; these, all of these are essential elements in a practical education.

While some of the other lines of work prescribed by the law and followed by this department may produce immediate results that are more striking, I am firmly of the conviction that no work can or will compare in efficiency or permanency with the fire prevention work done intelligently and conscientiously by the public school teacher.

FIRE PREVENTION DAY.

Realizing that it is not only desirable to educate the children in the causes, dangers and prevention of fires, but that it is important that public opinion be aroused in relation thereto, the subject of fire prevention was given special attention in this state on October 9th, which day was designated by you as Fire Prevention Day in the following proclamation:

A PROCLAMATION.

In recent years there has been much discussion about the conservation of natural resources. Heretofore they have been wasted to the amount of millions of dollars. The people have been in a great hurry to gather in the natural wealth of the country. They swept across the continent, building hurriedly, negligently, recklessly. In neither city, town nor country was there thought of fireproof materials or permanency. We are just entering upon the day when there is thought of permanency and of building for far-distant years, as well as for the present. There is thought now of conserving and preserving the wealth placed in the buildings of the country. While conserving the natural resources it is the part of wisdom to provide against the annual millions of dollars of loss by fire. Danger lurks in the thousands of wooden structures in our cities and towns. Danger of loss in thousands of dollars is imminent daily—indeed occurs almost daily. The strictest vigilance is necessary to save from this loss.

I have thought it necessary, therefore, in accordance with a custom already established, to set apart a day called Fire Prevention Day and do hereby proclaim

THURSDAY, OCTOBER 9, 1913.

as such day and urge upon the people of the state, especially in the cities and towns, to observe it as a day to consider conditions existing as sources of danger from fire, both inside and outside of buildings and with special reference to buildings where large numbers of persons work, to the end that there may not be only a very great saving of property loss but also that we may be spared the appalling disasters in the loss of human life that sometimes occur.

It is of little use to bewail conditions after the great loss and shocking disaster. The thing to do is to prevent as far as possible such occurrences. There ought to be daily inspection and precaution. The appointment of a special day may have the result of leading to such end. It is hoped that public officials throughout the state will take such steps as may be necessary for the proper observance of the day. A meeting of citizens for the purpose of discussing conditions and fire prevention would create a much needed public sentiment and start the work of prevention. Much good may be done and much loss prevented by an earnest observance of the day. Indifference and neglect are the parents of disasters. I hope attention will be given this very important matter.

In testimony whereof, I have hereunto set my hand and caused to be affixed an impression of the Great Seal of the State of Iowa, this 4th day of September, A. D. 1913.

G. W. CLARKE,
Governor.

A copy of this proclamation, accompanied by an urgent letter requesting observance of the day in the public schools, was sent to every superintendent in the state, as well as to every mayor. From reports received from schools, as well as from requests from school children for fire prevention literature, saying that they wanted the same in order to prepare essays on the subject of fire causes and fire dangers, I am satisfied that the subject was given considerable attention, at least in the public schools.

Realizing that the Holiday Season is a time of the year when fires are apt to be numerous, owing largely to the carelessness incident to the rush and hurry prevailing then, I issued and caused to be published in the leading papers of the state during the first part of December, the following:

HOLIDAY FIRE WARNING.

TO MERCHANTS:

Inflammable decorations increase the fire hazard.
Look out for the wiring of your electric decorations.
Keep fire extinguishers in condition for instant use.
Watch the smoker and his cigar, and the ubiquitous match.
Protect your lights. A breeze may blow a flimsy fabric against an unprotected light and start a fire.
Guard against spontaneous combustion among your piles of holiday goods, by providing for reasonable ventilation.
Impress upon each one of your employees the importance of exercising the utmost care in guarding against fire.
Clean up your packing rooms and basements daily. Excelsior and wrapping paper are highly inflammable. Permit no amount of "busyness" to interfere with this precaution.
"Safety First."

TO PARENTS:

Inflammable Christmas decorations often cause destructive fires in home and church.
Don't hang tissue paper bells or other inflammable decorations in close proximity to a light or fire.
Don't use a quantity of highly inflammable cotton to represent snow.
Asbestos fiber makes fine snow and will not burn.
Santa Claus should not wear cotton whiskers. Many a life has been lost by fire starting in such adornment.
Decorations that will burn have no place on a Christmas tree. Use tinsel or other non-inflammable material.

Children should not experiment with matches and candles or other things that produce fire.

Don't hang celluloid presents on the Christmas tree nor place them anywhere near a fire or light. Celluloid is among the most inflammable of substances.

Watch the tree closely as long as the candles are lighted and have means at hand to put out instantly any fire that may start among the branches.

Set the tree securely so that it can't tip over. Don't let the children light the candles.

Inquire as to the safety of the places of amusement which your children may attend during the crowded holiday season.

Don't let the holiday spirit make you careless in the matter of guarding against fire.

INSPECTIONS OF BUILDINGS AND BUILDING CONDITIONS.

Inspections of dilapidated buildings and extra fire hazards were made in 83 different cities and towns, a detailed statement of which inspections is found in Table No. IV appended hereto.

Owing to the limited force at my command, I have not been able to institute a general inspection but have given attention only to requests of city officials, chiefs of fire departments or interested property holders.

The orders issued for repairs, clean-ups or removals of buildings have, as a rule, met with ready compliance. In only one instance did the owner of property go into court seeking to enjoin the fire marshal from enforcing his order to remove a building upon the ground that the same was a special fire hazard.

This case arose in the city of Dubuque where an old and dilapidated three-story frame building was ordered removed, on or before December 29th last. Shortly after the expiration of the time limit set in the order, the owner made application to the district court of Dubuque county for the issuance of a temporary injunction. At the time set for hearing I appeared in person and by Henry E. Sampson of the attorney general's office. Upon our appearance the plaintiff dismissed his case and filed a written stipulation in court agreeing to remove the objectionable structure on or before April 1, 1914.

In my last annual report I called attention to the value as a fire preventive of periodical inspections of buildings and premises by the local authorities of the cities and towns, and submitted a form

of an ordinance providing for an inspector and prescribing his duties.

While some of the municipalities have taken action along the line suggested, I regret to say that this subject has not met with the popular support which its importance demands.

Our cities are, as a rule, alive to the necessity of providing for more improved fire fighting apparatus, and many of the smaller towns of the state have, during the past year, made provision for the establishment of water works in order that better fire protection might be afforded to their people. This is right and proper. I know of no place where too much money is being spent for this purpose, but the work that is going to count in the future in materially reducing the enormous fire waste which now annually takes place in this country, is the systematic and thorough inspection of buildings and fire hazardous conditions and the enactment and enforcement, without fear or favor, of such laws and ordinances as will compel greater care and cleanliness in and about all places of business.

One or two good, intelligent, fearless men acting for the city who would see to the cleaning up of dirty basements, and the repairing of unsafe fireplaces and chimneys, compel the safe handling and storage of gasoline and other inflammable oils, inspect poor electric wiring and other unsafe systems of lighting, would do more than any other agency to reduce the annual fire loss in our cities.

INVESTIGATIONS OF SUSPICIOUS FIRES.

A list of the places where suspicious fires were investigated during the period covered by this report, together with the dates when such investigations were begun, is found in Table No. V appended hereto. In brief, this table shows that investigations were made of 199 separate and distinct fires, located at 117 different places in the state.

The duty which the law places upon the state fire marshal in the matter of investigating suspicious fires is as difficult as it is important.

At the outset, we are met with a natural unwillingness upon the part of some people who know more or less about a fire, to tell the whole truth. The fear of the incendiary deters many good people from telling all they know. Then, too, jurors sometimes become unduly exercised for fear that possibly an innocent man may be convicted, and the result is either a failure to indict when an

indictment should be returned, or to convict when a conviction is fully warranted by the evidence.

While, as a rule, this department has had the hearty co-operation and support of county attorneys in the prosecution of persons accused of criminal burning, there have been two or three instances where these officials have shown an utter indifference to their duties along this line. I refer specifically to one case where it became necessary to invoke the assistance of the attorney general's office for the reason that the county attorney informed my assistant who presented the evidence to him that there was little or nothing in it and that it would be his duty to so advise the grand jury.

The fire in question was investigated by Capt. Amos W. Brandt, one of my assistants, and considerable evidence was gathered by him tending to show that it was the result of design. Two persons were placed under arrest charged with the crime. Believing that the county attorney was not favorable to a presentation of the matter to the grand jury, Assistant Attorney General John Fletcher, at our request, proceeded to the county seat and entered his appearance in court for the purpose of conducting the investigation before the grand jury. The appearance of the assistant attorney general was resisted by the county attorney, who contended that the attorney general's office had no right to appear in any case before the grand jury of any county, and the presiding judge, taking the same view of the law, issued an order prohibiting the attorney general or his deputy from appearing before the tribunal in question. Consequently no one representing the attorney general's office examined any of the witnesses which subsequently appeared before the grand jury.

Believing that the order of the court in excluding the attorney general was erroneous, Hon. George Cosson, attorney general, sued out a writ of certiorari in the supreme court of this state, and after hearing, the court held that the attorney general and his deputy had, under the statute, full power and authority to appear before any grand jury in the state in any case in which the state of Iowa was interested or to which it was a party.

See *Cosson vs. Bradshaw*, 141 Northwestern Reporter, 1062.

The question of the enforcement of law and the punishment of crime is one of the greatest that asks for solution at the hands of an intelligent people.

How may strength and courage be imparted to our law-enforcing officials so they will do their whole duty?

How may the twelve men who serve as jurors be inspired by a patriotic zeal to "let justice be done though the heavens fall"?

How may the men and women of our land, who, in the last analysis, must be held responsible for the administration of justice and the enforcement of law be endowed with a holy desire to tell "the truth, the whole truth and nothing but the truth" when called upon to testify in court?

These are questions that touch the very vitals of our government. They cannot be answered by passing resolutions. They must be solved in the home and in the school. We should bring to their right solution every agency and every influence at our command.

I have endeavored at all times to give every suspicious fire, reported as demanding an investigation, as prompt attention as possible, but, owing to the fact that the field is exceedingly large and the men at my disposal are necessarily few, it has been impossible in many instances to give every case either the time or the prompt attention which its importance demanded.

I again bespeak for this department an additional appropriation to the end that this work, as well as that of fire inspection, may be made more thorough and effective.

ARRESTS AND PROSECUTIONS.

PORTLAND TOWNSHIP, PLYMOUTH COUNTY.

On October 2, 1913, one Ed Sanford was sentenced at Le Mars to a term of five years in the penitentiary at Ft. Madison for setting fire to a haystack in the night time, the crime having been committed in 1910. Sanford was indicted shortly after the commission of the crime but successfully eluded the authorities until about a month before he was sentenced.

COUNCIL BLUFFS, POTTAWATTAMIE COUNTY.

The case against Mrs. M. A. Gallagher, to which reference was made in my last annual report, came to a second trial October 2, 1913, on a new indictment. To this indictment defendant filed a demurrer on the ground of former jeopardy in the previous trial. The court overruled the demurrer but intimated that certain evidence used at the former trial could not be used at the second trial. Thereupon the case was dismissed on motion of the county attorney.

UNIONVILLE, DAVIS COUNTY.

In the spring of 1912 a fire destroyed a house and barn owned and occupied by one Millie Houk and her husband George W. Houk. The property was heavily insured but the loss was adjusted and paid. In the fall of 1912 this office was requested to make an investigation of the case. During the course of this investigation much evidence was unearthed tending to implicate both Millie Houk and her husband in the crime of setting fire to the property for the purpose of injuring the insurer. An indictment was later returned against Millie Houk and her husband by the grand jury of Davis county charging them and others with conspiracy to burn both the barn and the house with intent to injure the insurer. This indictment is now pending in the Davis district court.

DES MOINES, POLK COUNTY.

On the evening of July 6, 1912, a fire took place in a grocery store in Des Moines, occupied by S. Vinetz. Following the receipt by this department of information to the effect that there were suspicious circumstances connected with the fire, an investigation was made as to the cause and origin thereof. The evidence gathered was submitted to the grand jury and that body returned an indictment against Vinetz charging him with setting a fire with intent to injure the insurer. On January 28, 1914, the case came to a trial which resulted in a verdict of not guilty.

CRESTON, UNION COUNTY.

A fire occurred August 20, 1912, in Creston, partially destroying the residence of one James Saling. An investigation was made by Deputy Tracy of this department shortly thereafter, during which a sufficient amount of evidence was obtained to warrant the grand jury's returning an indictment against James Saling and also against Earl Madden and Everett Emerson, charging them with conspiracy to burn the Saling property for the purpose of injuring the insurer. Further investigation brought to light evidence tending to show that Saling and Madden in the summer of 1911 had conspired together to burn certain property belonging to Madden at Cromwell in order to obtain insurance money. Later, evidence was discovered tending to connect Everett Emerson and Earl Madden with a fire which destroyed property belonging to the former, located at Corning. All of this evidence being presented to the grand jury, a new indictment was returned against these three persons charging them with conspiracy to burn all

three properties. An indictment was also returned against Madden alone for arson, he being charged with setting the fire to the Saling property at Creston in the night time. On the 5th day of February, 1913, the case of Earl Madden came on for trial in the Union County District Court, and after a hard fought legal battle lasting four days, the case was submitted to the jury which body found Earl Madden guilty of conspiracy to burn, and he was thereafter sentenced by the court to serve a term of three years in the penitentiary at Ft. Madison. This case is now pending on appeal in the supreme court.

On April 7, 1913, James Saling was tried in the same court and on the same charge. The jury failed to agree on a verdict in this case and a second trial of James Saling was had, beginning November 17, 1913. After a three days' trial the jury found James Saling guilty of conspiracy to burn and he was sentenced by the court to a term of three years in the penitentiary at Ft. Madison.

The case against Everett Emerson who was indicted on the same charge as Madden and Saling, is still pending.

Much credit for these convictions is due to Deputy J. A. Tracy for his energy and skill in securing evidence, and to County Attorney H. P. Armitage and his assistant, Mr. H. E. Valentine of Centerville, Iowa, for the able manner in which they handled the state's side of the case in court.

GILMAN, MARSHALL COUNTY.

On the night of February 21, 1913, a fire broke out in a blacksmith shop at Gilman, belonging to one Ben Ingraham. In the newly fallen snow those who came to the fire found tracks leading from the blacksmith shop to a building nearby. In this building they discovered Randy Long and Dell Peeper, two men residing at Gilman. An investigation of this fire was taken up very soon after its occurrence and the evidence secured was submitted to the grand jury of Marshall county with the result that an indictment was returned against Dell Peeper and Randy Long charging them with arson. The case against Randy Long came on for trial on or about April 10th and resulted in a verdict of not guilty. Shortly thereafter the court dismissed the case against Dell Peeper.

COUNCIL BLUFFS, POTTAWATTAMIE COUNTY.

In the early part of April, 1913, a series of fires took place at Council Bluffs damaging the Y. M. C. A. building at that place.

The nature of these fires was such as to leave no doubt as to their being of incendiary origin, and an investigation begun soon thereafter by this department brought to light evidence indicating that the guilty person was some one thoroughly familiar with the Y. M. C. A. building. Suspicion finally fastened on one W. E. Cottrell, who was then secretary of the Y. M. C. A. When questioned closely, Cottrell made a sort of rambling, written confession to the effect that he might have set these fires but that he had no clear recollection thereof, etc., etc. Later, upon information filed by his father, Cottrell was adjudged insane and sent to the asylum at Clarinda. After he had been confined there for some six weeks the superintendent of that institution decided that Cottrell was not insane and he was discharged. A charge of arson was then brought against him in the justice court at Council Bluffs and he was bound over to await the action of the grand jury. When that body convened at Council Bluffs in the fall of 1913, the evidence collected by this department was submitted to them but they found that inasmuch as Cottrell had once been adjudged insane he could perhaps not be legally convicted, and hence they returned no indictment.

SIoux CITY, WOODBURY COUNTY.

In April, 1913, a series of fires occurred in Sioux City, the last three of them taking place within a half hour on the morning of April 17th. A man found in close proximity to the last fire was arrested by the police. He gave his name as William F. Peebles. An investigation of these fires was later made by Deputy Tracy of this department, at which time Peebles made a confession, in which he admitted that he had set four fires. On or about June 3d he was arraigned and pleaded guilty to the charge of setting fire with intent to burn and was sentenced to a term of five years in the penitentiary.

CEDAR RAPIDS, LINN COUNTY.

A number of suspicious fires took place in April, 1913, in and about Cedar Rapids, affecting especially the property of the Rock Island railroad company. An investigation was made by this office as to the cause and origin of these fires, with the result that it was found that a conspiracy existed among several young fellows working in the Rock Island shops at Cedar Rapids, said conspiracy having for its object the burning of certain property belonging to the company. Two of the young men, William Smith and William Kelley, made written confessions to the effect

that on the evening of April 20th lots were cast among the fellows involved in the conspiracy to see who should set the fire and Smith and Kelley drew the fateful numbers. They thereupon proceeded to carry out the plot. These two parties were placed under arrest and later bound over to the grand jury to which body all the evidence in the case was submitted when they met in the fall of 1913. The grand jury, however, failed to indict.

COUNCIL BLUFFS, POTTAWATTAMIE COUNTY.

At 11 o'clock on the night of May 15th, 1913, a fire took place in Council Bluffs partially destroying a house occupied as a residence by one W. W. Porter. There were several circumstances connected with the fire indicating incendiarism and when these were brought to the attention of this department an investigation was made at once. A large amount of evidence was secured tending to show that Porter had set the fire for the purpose of obtaining insurance money. The man was arrested, charged with the burning, waived to the grand jury, and in default of bond, was held in jail. On or about November 12, 1913, he pleaded guilty to the charge of attempting to burn a building and was sentenced to a term of one year in the county jail.

SIoux CITY, WOODBURY COUNTY.

At midnight on June 13, 1913, a house at Sioux City occupied as a dwelling by one Geneva Gates was damaged by fire. Several circumstances connected with this fire indicated that it was of incendiary origin, and one J. C. Blackburn who was rooming at the house at the time of the fire was arrested, charged with arson, given a preliminary hearing and bound over to the grand jury. Later that body returned an indictment against Blackburn charging him with arson, which indictment is now pending in the Woodbury District Court.

BLOOMFIELD, DAVIS COUNTY.

On the night of June 18, 1913, a fire occurred at Bloomfield which destroyed a barn belonging to Hattie and Ella Miller, and also damaged their residence. There were several suspicious circumstances connected with this fire tending to show that it was the result of design, and a request was made to this department for an investigation. This investigation disclosed the fact that these women had at one time been inmates of the insane asylum at Mt. Pleasant, and that there was some reason for believing

that their minds were still unbalanced. Charges of insanity were filed against the women but when the case came up before the commissioners it was dismissed. They were then arrested on a charge of arson and a preliminary hearing was had, the result of which was that they were bound over to the grand jury by which body they were later indicted, charged with arson. This indictment is still pending.

SIOUX CITY, WOODBURY COUNTY.

On June 29, 1913, a fire damaged a house at Sioux City belonging to F. J. Sulzbach. It was found upon investigation that the house had been burglarized and one Joe Arentz was arrested charged with the burglary, and also with setting the fire. He pleaded guilty to the burglary and was sentenced to a term in the penitentiary for that crime, but he denied having set the fire. The supposition is that while he was prowling about the house looking for plunder he dropped a lighted match from which the fire originated.

McCALLSBURG, STORY COUNTY.

On July 31, 1913, a fire occurred at McCallsburg burning a barn belonging to one L. H. Bakka. One Axel Haugnes, a young fellow living in or near the town, was suspected of having set this fire. He was arrested, given a preliminary hearing and bound over to the grand jury. Deputy Tracy of this department made an investigation of the case during which evidence was obtained tending to show that Haugnes was of unsound mind. He admitted having set the fire but gave no reason for his act. Inasmuch as this young man had but recently come to this country from Norway and seemed to be desirous of returning whence he had come, the matter of his deportation was taken up by the county attorney with the Federal authorities, with the result that Haugnes was deported to Norway on or about October 4, 1913.

BURLINGTON, DES MOINES COUNTY.

On August 5, 1913, at or about 10 o'clock in the morning a straw stack belonging to a neighbor of Joseph Schmitt, near Burlington was consumed by fire. An investigation of this fire was made by this department, in the course of which it developed that the fire had been set by Mrs. Joseph Schmitt, she making a confession to that effect, giving as her reason for her act that she wanted to see a fire. From all the facts and circumstances obtained in connection with this case it was evident

that the woman was of unsound mind. The case is now pending, having been submitted to the county attorney of Des Moines county to be dealt with by him as in his judgment seems proper.

DUBUQUE, DUBUQUE COUNTY.

On Sunday afternoon, August 25, 1913, an attempt was made to burn the residence of Dr. W. P. Slattery of Dubuque. The alarm was given by one K. C. Bergener, a young man about seventeen years of age living in the neighborhood. His story was that he had gone to the Slattery home to pay a visit. He found no one at home but Mrs. Slattery's mother who was on the front porch. The front door being locked, Bergener, in order to unlock it, went around to the back door to get into the house. When he got in he claimed he found the house on fire in several places and he thereupon gave the alarm. After the fires had been put out it was discovered that the telephone wires were cut both upstairs and down, and on a desk in the doctor's private office was found a blotter on which were written several words with some pointed instrument. Bergener stated that just as he was going into the house he had noticed some person walking rapidly away from the place.

The case attracted considerable attention, inasmuch as the circumstances connected with the fire pointed unmistakably to incendiaryism. The newspapers contained detailed accounts of the fire and young Bergener came in for much praise for his activity in preventing the fire from causing more destruction than it did.

This department having been requested to make an investigation as to the cause and origin of this fire, Deputy Tracy accompanied by Assistant Frowiek, went to Dubuque on September 4th for the purpose of making such investigation. The evidence secured indicated very strongly that Bergener was guilty of setting these fires and he was accordingly called in and asked to give an account of himself. He finally admitted that he had set the fires, making a written confession to that effect. He also admitted that he had cut the telephone wires, had written the line on the blotter and had made up the story about seeing a man walking away from the Slattery place. Later Bergener was arraigned, charged with setting out fires with intent to burn, to which charge he pleaded guilty but was paroled by the court.

KEOKUK, LEE COUNTY.

On the night of September 27th, 1913, a house owned by Mrs. C. Keppel of Keokuk was damaged by fire. An investigation

subsequent thereto disclosed evidence tending to connect one James Grigsby (colored) with the setting of this fire, his motive being revenge. The evidence upon being submitted to the grand jury, that body on or about Oct. 2, 1913, returned an indictment against Grigsby charging him with arson. This indictment is now pending.

COUNCIL BLUFFS, POTTAWATTAMIE COUNTY.

About midnight on November 2, 1913, a fire occurred at Council Bluffs damaging a house occupied as a dwelling by one Rosario Lima. Upon the arrival of the fire department they found in the kitchen of this house a bucket half full of gasoline and they also found oil soaked paper and burlap lying on the floor. It was evident that the fire was of incendiary origin and this department was immediately notified and an investigation was begun. It developed that the contents of the house were greatly over-insured and in view of this circumstance and other evidence gathered during the investigation, an information was filed against Rosario Lima and one Sam Mongano charging them with the burning, and these parties are now being held to await the action of the grand jury.

OSKALOOSA, MAHASKA COUNTY.

In the early part of November a strike of street car men took place at Oskaloosa in connection with which, as is usual in such cases, there were sundry riotous outbreaks resulting in the destruction of property. On the evening of November 8th a street car was set on fire by a mob. Pursuant to a request by Governor Clarke, a representative of this department went to Oskaloosa to assist the department of justice in an attempt to secure evidence against those who might be guilty of setting fire to property. During this investigation a large amount of evidence was gathered and submitted to the authorities. The grand jury of Mahaska county later returned indictments against seven persons, among whom was one William Richmond, the latter being charged with the crime of wilfully setting fire to the street car referred to. This case is now pending in the district court of Mahaska county.

DAVIS CITY, DECATUR COUNTY.

At 3:30 a. m., November 19, 1913, a restaurant building located at Davis City was damaged by fire. It was found at the time of the fire that a large part of the inside of the building had been thoroughly saturated with coal oil so there could be no

doubt but that the fire was the work of an incendiary. Suspicion fastened on one Alva Cox, a young fellow whose home is at Leon, a nearby town, and this man was arrested, given a preliminary hearing and bound over to the grand jury. An investigation was made by this office and considerable evidence was secured which has been submitted to the county attorney as provided by law.

DEATH RECORD.

During the period covered by this report the following persons lost their lives by fire:

HOWARD A. HAMBSCH, the two-year-old son of Amos P. Hambsch, of Malvern, Mills county, died January 8th as the result of burns received when, alone in the house, he had evidently tried to pour coal oil into the stove from a cup as he had seen his elders do, and his clothing caught fire.

MRS. ANNA M. EVERIST, of Sioux City, Woodbury county, died January 15th, from burns received when her clothing caught fire from a gas heater in the bathroom.

CARL NICKLAUS, an old man of Parkersburg, Butler county, died January 19th, as the result of burns received when the house in which he was asleep took fire. The cause of the fire was the explosion of an oil stove.

DAN BROWN, of Keokuk, Lee county, died January 26th as a result of burns received while he was at work in a conduit tunnel. It is supposed that he used gasoline to thaw out a water pipe and that an explosion took place, setting fire to the man's clothing.

MARGARETA HUENENMUELLER, of Manning, Carroll county, died as the result of burns received in an accidental fire January 28th. She was eighty-four years of age and feeble and it is not known exactly how the burning occurred.

ELIZABETH REIS, of Odebolt, Sac county, died January 29th as a result of burns received when her clothing caught fire.

MRS. FANNIE J. HARRIS, her son, MAJOR D. HARRIS, the son's wife, DAISY E. HARRIS, and the son's two children, PERVIS, aged 9, and ARNET, aged 7, living near Richland, Richland Township, Keokuk county, were all burned to death about one o'clock A. M. January 31st when their home took fire, probably from an overheated stove, and burned to the ground.

KATHERINE E. CAMERON, of Winterset, Madison county, died February 1st, as a result of burns received when she pulled a large coal oil can down off the top of a warming closet, the oil being spilled on the hot stove and setting her clothing on fire.

- PETER PETERSON, of Audubon county, died February 3d as a result of burns received when his clothing caught fire from the explosion of a stove into which he had poured coal oil, thinking the fire was out.
- GEORGE BEAHR, of Traer, Tama county, died February 7th as a result of burns received when a gasoline can exploded by being ignited from a blow torch.
- HARRY D. HOGAN, of Sigourney, Keokuk county, died February 10th as a result of burns received in an explosion when he poured kerosene into the kitchen stove.
- IRWIN H. LANNSPACH, the three-year-old son of A. Lannspach, of Des Moines, Polk county, was burned to death February 11th when the house caught fire from a spark flying in through the open window.
- TANA JAGER, of Germania, Kossuth county, died March 7th as a result of burns received when the house where she was staying caught fire from the explosion of a gasoline torch.
- HARRIET N. OSBORNE, of Denison, Crawford county, died March 10th as a result of burns received when her clothing caught fire from a lamp explosion. She was going upstairs carrying a lighted lamp when she stepped on her skirts, stumbled and dropped the lamp.
- MRS. JOE C. CLARK, and her three small children, RUTH, FRANK and ERSLINE, of Belmond, Wright county, were burned to death March 18th when their house caught fire as the result of a coal stove explosion and was burned to the ground.
- MARTHA M. RUHD, Davenport, Scott county, died March 28th, as a result of burns received when her clothing caught fire from a stick of wood falling from the heating stove.
- ANTONIO BARTELL, the infant son of Antonio Bartell, of Albion, Monroe county, died March 31st as a result of burns received when his older brother struck a match and set the infant's clothing on fire, the two children being alone in the house at the time.
- HAZEL KIRBY, of Barnes City, Mahaska county, died April 8th as a result of burns received when her clothing caught fire from an explosion as she was pouring coal oil into a heating stove.
- BESSIE GUIDER, a nine-year-old girl at Van Horne, Benton county, died April 14th as a result of burns received when her clothing caught fire from an explosion as she was pouring kerosene into a stove.
- THOMAS C. WARE, the two-year-old son of C. V. Ware, of Des Moines, Polk county, died from burns April 19th, received when his clothing caught fire from a piece of burning paper which blew against him from a burning pile of rubbish.
- NICK ARVANDITIS, of Cedar Rapids, Linn county, died April 20th, as a result of burns received when his clothing caught fire from an explosion of gasoline with which he was trying to start a fire.
- MARY V. RUSSEL, the six-year-old daughter of Ray W. Russel, of Wichita, Guthrie county, died May 6th as a result of burns received when her clothing caught fire from a burning straw stack near which the child was playing.

- MELVIN LAMBERTSON, a four-year-old child of Clear Lake, Dickinson county, died May 13th as a result of burns received when he got up out of bed, struck a match and set fire to his night clothes.
- JOE GIBSON, a tramp, was burned to death May 13th in a box car on the Kansas City Short Line near McCallsburg, Story county. He was stealing a ride and had evidently thrown a lighted match down on the oily floor setting the car on fire.
- MRS. CORA G. WEBB, of Highview, Hamilton county, was burned to death May 24th when her clothing caught fire from an explosion of boiling linseed oil on the kitchen stove.
- HELEN L. CAMPBELL, the six-year-old daughter of Mrs. Edith M. Campbell, of Wallingford, Emmet county, died June 9th as a result of burns received from a toy stove with which she was playing in the yard.
- CYNTHIA M. STREETER, of Waabta, Cherokee county, died June 7th as a result of burns received from an explosion of turpentine and linseed oil boiling on the kitchen stove.
- MARTHA ARENTSEN, of Walnut, Pottawattamie county, died June 23d as a result of burns supposed to have been received from the explosion of a kerosene lamp.
- ROLAND G. ENGLE, a three-year-old child was burned to death at Paulina, O'Brien county, July 28th, when his clothing caught fire as a result of his playing with matches.
- CHARLES A. VAN VLECK, of Des Moines, Polk county, died August 5th as a result of being suffocated when his house caught fire.
- RUTH C. BEADE, a two-year-old child at Kellerton, Ringgold county, died August 9th when her clothing caught fire as a result of her playing with matches.
- ELIZABETH WELCH, of Center Junction, Jones county, died August 11th as a result of burns received when she attempted to start a fire with coal oil, the can from which she poured the oil containing gasoline instead, which exploded immediately upon the striking of the match.
- ALLEN ACHUFF, the three-year-old son of Arthur Achuff, of Waterloo, Black Hawk county, died August 15th as a result of burns received when his clothing caught fire from matches with which he was playing.
- MINNIE SCHAAPVELD, of Lone Tree, Johnson county, died August 17th as a result of burns received from an explosion of gasoline.
- MRS. T. H. LUNEMAN, eighty-one years of age, was burned to death August 30th at her home at La Porte City, Black Hawk county, when her clothing caught fire from a gasoline stove.
- THE STERNWEIS FAMILY, near Waupeton, Dubuque county. About midnight, August 21st, a fire destroyed the dwelling house, barn and corn crib on the farm of Henry Sternweis. In the ruins were found the charred remains of Mr. Sternweis, his wife, a boy of eight, a girl of five, and an infant eight months old. The cause of this fire is unknown.

UNKNOWN PERSON, probably a tramp, was burned to death in a fire which destroyed the barn of Thomas Felper, near Orchard, Floyd county, August 25th.

GEORGE E. STONEBREAKER, the four-year-old son of Joe Stonebreaker, of Iowa Falls, Hardin county, died August 27th as a result of burns received when his clothing caught fire while he was playing with older boys who had a torch, a can of kerosene and a bonfire. The can of oil was kicked over and the child's clothing saturated with the oil.

MARY E. BYRNE, of Hawkeye, Fayette county, died September 10th as a result of burns received from the explosion of a gasoline flat iron.

W. C. JOHNSON, a man 82 years of age, living at Kellerton, Ringgold county, was burned to death September 15th when the house in which he lived caught fire and burned to the ground, the old man being unable to get out.

MRS. MILLS B. ALDREDGE and MISS HUTSON, of Des Moines, Polk county, came to their deaths on the morning of October 17th when their house caught fire, burning so rapidly that the two women were unable to escape.

J. O. BISHOP and J. E. WILKINS, of Murray, Clarke county, were burned to death October 18th when a garage and blacksmith shop in which they were working took fire as a result of an explosion of gasoline.

MRS. MARY ERPELDING, of Bode, Humboldt county, burned to death November 1st, presumably as a result of her clothing catching fire from an explosion of stove polish.

MRS. ALEINDA FLESHER, of Liberty Center, Warren county, died November 13th as a result of burns received when her clothing caught fire from a spark from the stove.

MRS. BERT KAPPLE and two-year-old son, DONALD KAPPLE, were burned to death November 18th at their home in Clarinda, Page county, as a result of the woman's clothing catching fire when she dropped a lamp she was carrying upstairs.

WILLIAM E. EZZELL, of Centerville, Appanoose county, was burned to death November 28th when the house in which he lived caught fire and burned to the ground. It is supposed that this man was drunk and had probably set fire to the house.

MRS. ED. HOXEY, of Storm Lake, Buena Vista county, died December 17th as a result of burns received when her clothing caught fire from burning floor polish which was being heated on an open fire and boiled over.

TOBIAS SEVERSON, of Kelly, Story county, was burned to death December 22d when the house in which he lived caught fire. The man was eighty-three years of age and infirm, and the building burned so rapidly that he was unable to get out.

MRS. F. M. BALES, of Fairfield, Jefferson county, died December 22d as a result of burns received when her clothing caught fire from a gas stove.

Of the sixty-three persons mentioned above, who came to their deaths as a result of being burned, twenty-six were women and

twenty-one children. In twenty-one cases of fire fatal to life coal oil or gasoline was involved. In seven cases the person who was burned to death tried to start or quicken a fire by the use of oil. Nine children were burned as a result of playing with matches or fire or in close proximity to a bonfire.

A part of the information contained in the above record of deaths was secured from the records of the Department of Vital Statistics connected with the State Board of Health.

BUILDING CODES AND ORDINANCES.

Realizing that the construction of buildings in our cities and towns is closely related to the work of fire prevention, I have given much time and thought to the matter of better building regulations. My views upon this subject are quite fully set out in an address delivered by me before the League of Iowa Municipalities at Marshalltown on September 23d last, which is respectfully submitted herewith:

During the year 1912 the per capita fire loss in the United States exceeded \$2.31. During the same period the per capita loss in six of the leading nations of Europe was less than 40 cents. While there are a number of contributing causes to this excessive loss in our country, the chief cause undoubtedly relates to or grows out of the building conditions in our cities and towns.

This is as yet a comparatively new country and our state is a young state. Within the memory of many men now living, the greater portion of Iowa was an open prairie, not only devoid of cities and towns, but having very few farm houses. Our growth has been rapid and marvelous, but the speed with which our prairies have been settled and our cities and towns have been built, has been at the expense of durability.

It has only been during the last dozen years that any real fire-proof buildings have been erected anywhere in the state. It is a source of satisfaction, however, to be able to state that there has been, and now is a real awakening to the necessity of better buildings in our cities and towns, and that during no like period of time have so many substantial business buildings been erected—buildings that are very nearly or quite fire-proof—as during the past two or three years.

Unfortunately the civic pride which stimulates one property owner to build in the very best possible manner does not govern

the actions of his neighbor, and for that reason it has become necessary to provide by law for the adoption of fire limit ordinances, and to prohibit within such limits the erection of buildings or additions thereto, unless such buildings conform to certain general directions.

Prior to the enactment of Chapters 63 and 64 of the Acts of the 35th General Assembly, the only power which cities and incorporated towns possessed in the matter of regulating the construction of buildings, is set out in Sec. 711 of the Code, which reads as follows:

They (cities or towns) shall have power to make regulations against danger from accidents by fire or electrical apparatus, to establish fire limits, and to prohibit within such limits the erection of any building or addition thereto, unless the outer walls be made of brick, iron, stone, mortar or other non-combustible material, with fireproof roofs, and to provide for the removal of any structure erected contrary to such prohibition.

Our supreme court has held in the case of *Des Moines vs. Gilcrest*, 67 Iowa, 210, that no ordinance establishing fire limits and prohibiting the erection of wooden buildings within such limits could be legally passed, except in accordance with the provisions of this section.

A careful reading of the section quoted will convince anyone that it was wholly inadequate to the present day needs of building regulations, for, while it gave the municipality power to prohibit the erection of buildings unless the outer walls be made of certain non-combustible material therein specified, and with fireproof roofs, it did not give power to regulate or prescribe how the interior of a building must be constructed. Experience has shown that the term "fire-proof roof" is a very elastic one if left to the judgment, caprice or favoritism of the particular officer in charge of the enforcement of the ordinance.

In not a few cities and towns having limit ordinances drawn almost in the identical language of Section 711 of the Code, the authorities have permitted the erection of frame buildings within the "fire limit district," with only a thin covering of corrugated iron, and have solemnly held that this was a compliance with the requirements of the statute and the ordinance which provided that the outer walls must be of "non-combustible material."

Not until quite recently has our highest court had occasion to pass upon the question, what constitutes an "outer wall." In the case of *Lane-Moore Lumber Co. vs. Storm Lake*, 151 Iowa,

130, our supreme court held that the outer wall when constructed of brick, stone or cement must be of sufficient thickness to be self-supporting, and that a sheathing of corrugated iron does not comply with an ordinance enacted in conformity with Sec. 711 of the Code.

The court, however, held in this same case that a non-combustible preparation used as the outer covering of a roof, although supported underneath by boards and rafters of lumber, is a reasonable compliance with an ordinance requiring "fire-proof roof."

In view of the fact that the power of cities and towns to adopt adequate building regulations was greatly circumscribed by the provision of the Code, the enactment by the Thirty-fifth General Assembly of Chapters 63 and 64 was an exemplification of legislative wisdom and foresight, the value of which only the future can fully demonstrate. Said chapters read as follows:

Chapter 63. "Cities and towns, including cities under special charter and cities under the commission form of government, shall have the power to adopt by ordinance, a building code, providing for the districting of such cities into one or more districts, establishing reasonable rules and regulations for the erection, reconstruction and inspection of buildings of all kinds within their limits and for a fee for such inspection and providing penalties for violation thereof."

Chapter 64. "Cities, including cities acting under special charters and cities acting under commission form of government, and towns shall have power to make regulations for protection against fire and electrical apparatus, to establish fire limits, to prohibit within such limits the erection of all buildings, and structures of every kind, additions thereto, substantial alterations thereof involving partial rebuilding, not constructed of fire-proof materials, in whole or in part, as prescribed by ordinance, and to remove or take down any building or structure or part thereof erected contrary to such ordinances and to collect the cost thereof from the owner."

The difference between the provisions of Chapter 64 and Section 711 of the Code, for which it is a substitute is this:

That while the latter only authorized cities and towns to prohibit the outer walls and roof from being constructed of combustible material, but gave no power to prescribe or regulate the interior construction, which is quite as important, the new law gives the municipality full power to provide that fire-proof material must be used throughout both in the exterior and in the interior construction.

Chapter 63 gives to cities and towns the general power to adopt, by ordinance, a building code. If such a code be adopted it should set forth with reasonable detail the requirements for

the erection of the buildings within the particular district included within the territory designated as the fire limit district.

Having thus been given ample power to regulate both the inner and the outer construction of buildings within their territory, it is incumbent upon the various municipalities to take action so that the power conferred may be duly exercised.

Some of the states in the east, notably Ohio, have had under consideration for some time the adoption of a comprehensive building code which is to be made a part of the statutes of the state.

From the standpoint of enforceability I can see good reasons why such a code would be desirable, although there might arise questions as to whether or not it could be adapted to the peculiar needs of all the various cities and towns of our state. Then, too, I doubt if public opinion has as yet been sufficiently crystallized, or even formed, in relation to this matter, so that a reasonably satisfactory code could be adopted and enforced.

I am, however, firmly of the opinion that the state should by law provide certain minimum requirements as to the construction of buildings within the fire limits fixed by the people of any particular municipality. The statutory provisions should lay down certain general principles of construction, leaving it to the particular city or town to prepare a code or ordinance in detail, but providing that the same must be in harmony with the general requirements laid down in the statute.

While I do not wish at this time to attempt to formulate a general plan for such a law or ordinance, I desire, however, to suggest a few general principles which ought to be kept in mind both in the enactment of additional legislation and in the adoption of a municipal building code or ordinance.

1. *Foundation.* Due attention should be given to the construction of the foundation of every building. The thickness of the same should be based upon the height of the building and consequent width of the walls, and the depth at which the foundation should be placed in the ground should be governed by the same principles. If there be no basement, provision should be made for placing the foundation below the frost line.

2. *The Chimney.* Minimum requirements should be prescribed for the material, size and construction of all chimneys in business buildings as well as in dwellings.

3. *The Walls.* Provision should be made for the minimum

thickness of all walls and also of all partition walls and the kind of material of which such walls should be constructed should be set out.

4. *The Roof.* It is not sufficient that the roof be designated as fire-proof for experience has shown that this term admits of a wide range of construction. The ordinance or code should specify the general kinds or classes of material that should be used in the roof and how the same should be supported.

5. *Interior Construction.* Provision should be made for the interior construction, especially as to girders, rafters and beams.

6. *Stairways and Elevators.* All stairways should be of non-combustible material and all elevator shafts should be enclosed in the same material, and provision should be made for the automatic closing of all doors leading to elevator shafts, thus preventing them from becoming, what they too often are, in case of fires, chimneys or ventilating flues.

7. *Windows.* Provision should be made for window shutters or else for wire screened windows.

8. *Heating.* Specific regulation should be made for the installation of heating plants. If stoves be used, provision should be made for the protection of the floor and that no iron flue pass through wooden partitions. If furnace be used, provision should be made for its location and how far it should be from the floor or ceiling. If steam heating plant be installed, the same general provisions as to safety should be made.

9. *Lighting.* If electric lights be used, the installation and wiring should be passed upon by a competent electrician. If gas be used, provision should be made for cutting off the gas on the outside of the building in emergencies.

10. *Fire Escapes and Water Pipes.* Provision should be made for the equipment of all buildings of three or more stories with ample fire escapes, and water pipes should also be installed the entire height of the building.

The above outline should apply to business buildings in general, located within the fire limit district, but not to mills, elevators or factories of various kinds, the construction of which should be regulated by specific ordinance.

Special ordinances should also be provided for the construction and equipment of opera houses, moving picture shows and other places where large numbers of people gather, the point to be kept

in view in all such cases being the safety of life, as well as the protection of property.

As recommended in my last annual report to the governor, I am thoroughly convinced that in the future no hotel, opera house or other place of public entertainment should be erected in any city unless the same be fire-proof. I am furthermore of the opinion that cities should limit by ordinance the height of all business buildings to be erected therein, and that no building should exceed eight stories in height unless the same is absolutely fire-proof. By that I mean that no wood or combustible material should be used in any part of its construction. For sanitary reasons as well as for safety no school building should be more than two stories high.

I shall not enter upon a discussion of the question as to the advisability of adopting a comprehensive building code by act of the legislature. Possibly we are not as yet prepared for that. In my opinion the time will eventually come when city building will have to be regulated by statute to a greater extent than it is today. The great difficulty, both in relation to city ordinances and statutory provisions, is the enforcement of such provisions. It is of little use to enact laws or adopt ordinances that are not enforced. On the other hand, it will not do for legislators and city officials to sit back and wait until a demand is made by the people for more stringent building regulations.

In this matter, as in many others pertaining to the welfare of our cities and towns, the officials who have practical knowledge of their needs must take the initiative. We are still living in an age of cheapness, and so long as the poorly constructed fire trap rents as readily as the fire-proof building there is not much encouragement to the builder or property-owner to build as he ought. Eventually the compelling power must come from the law-makers of the state, with an eye solely to the safety of life and the protection of property.

My concluding thought, then, is that certain general principles containing minimum requirements relative to the construction of buildings in cities and towns might well be enacted into law, leaving it to the various municipalities to fill out or enlarge upon the skeleton so outlined. If, in the enforcement of law or ordinances the city and the state are united, there will be no difficulty in securing the object of the law. If they be not united, little will be accomplished.

To my mind there is no more important subject before this body than that of building for the future. Iowa may never have a great

metropolis. It now has a multitude of enterprising, prosperous and progressive cities and towns. If these cities and towns would keep pace with the development of the nation and the age, they must build better buildings and thus render life and property within their borders not only more attractive but more secure.

INFLAMMABLE OILS.

Carelessness in the storage, handling and use of gasoline, kerosene and other highly inflammable and explosive oils presents an ever increasing danger not only to property but to human life.

During the year, 186 fires, involving a loss of \$125,841, were reported to this office, which were traceable directly to this cause.

While the carelessness and indifference of the individual user can only be reached by education, the carelessness of the dealer should be reached by proper ordinances or specific statute.

In no case should gasoline or other highly inflammable or volatile oils in any quantity be stored or permitted to remain in any place of business but should be stored in a detached building, or, better still, underground.

The manner of conducting the public automobile garage which is found in nearly every town, as well as in the city, should receive earnest attention upon the part of all municipal officers who are concerned in fire prevention. During the past year 50 garages were reported to this office as having been destroyed by fire, involving a loss amounting to \$115,684.

For the benefit of cities and towns which might desire to adopt an ordinance relating to this subject, I submit the following, which has been adopted by the National Fire Protection Association:

AN ORDINANCE TO REGULATE AUTOMOBILE GARAGES.

Be it Ordained by the of the of as follows:

SECTION 1. By the term "Public or Commercial Garage" is meant a building or that portion of a building wherein are kept more than three automobiles or motor cars charged with or containing a volatile inflammable liquid for fuel or power.

Where any portion of a building is used for a garage, the garage shall be deemed to embrace all of the building not separated from the garage proper by standard fire walls. All openings in such walls shall be protected on both sides by standard fire doors, constantly closed except when necessarily temporarily opened for passage.

A private garage housing not more than three automobiles if within fifteen (15) feet of any other building must be of incombustible material.

Sec. 2. By the term "Volatile Inflammable Liquid" is meant any liquid that will emit inflammable vapor at a temperature below eighty (80) degrees Fahrenheit.

Sec. 3. No frame building shall be used as a public or commercial garage, and no building exceeding one story in height shall be used as such garage within the fire limits unless it be of fireproof construction. No basement or cellar shall be allowed under such garage, nor shall any building be used as such garage unless the floor on which automobiles containing volatile inflammable liquids are stored shall be of concrete, or other suitable non-combustible material.

Sec. 4. No stove, forge, torch, boiler or other furnace, and no flame or fire shall be used or allowed in any garage. All electric dynamos and motors not actually part of the automobile, except "explosion-proof" or fully enclosed motors, shall be located not less than five feet above the floor. All incandescent lights so located as to be exposed to mechanical injury shall be protected by approved wire guards, and all arc lamps shall be so located as to be safe from mechanical injury, and shall be of the enclosed type; approved re-enforced cord must be used where lamps are used for portable purposes. Movable incandescent lights in a garage shall be protected by approved metal guards and shall be fitted with keyless sockets, and all electric switches and plugs shall be permanently located at least five feet above the floor, and enclosed in a fireproof cabinet. The entire electrical equipment shall conform to the rules contained in the latest edition of the National Electrical Code.

Sec. 5. No volatile inflammable liquid shall be kept or carried in open vessels in a garage, and no volatile inflammable liquid shall be drawn except into approved safety cans of a capacity not exceeding five gallons each, and then, with the exception of liquids with flashpoint above 30 degrees Fahrenheit, only for the purpose of immediately filling the tanks of automobiles contained in a garage. In lieu of the above safety cans, portable filling tanks, not to exceed sixty (60) gallons in capacity, may be used for transporting volatile inflammable liquid to and from the storage tanks for filling and charging the automobile. The said portable tanks shall be supported on rubber-tired wheels and liquids must be drawn by means of a tight-fitting pump. Hose attachment must not exceed ten feet in length, equipped at the end with a shut-off valve.

Sec. 6. No volatile inflammable liquid shall be allowed to run upon the floor or to fall or pass into the drainage system of a garage, nor shall any such liquid be put into or removed from the tanks of a vehicle while any light or fire on the same is burning.

Sec. 7. Where electric charging apparatus is installed or placed in a public or commercial garage, all such apparatus except the wires leading to the automobiles to be charged shall be placed within a room separated from the main garage by fireproof walls, which wall shall not be inferior in fire-resisting qualities to re-enforced concrete construction four inches in thickness; any openings from said room into the main garage shall be

protected by self-closing fire doors, and door sills shall be raised at least eight inches above the floor level.

Sec. 8. No person shall smoke in any garage. A notice in large letters "NO SMOKING" shall be kept displayed in a conspicuous place and manner on all floors and at the entrance of all garages.

Sec. 9. On the floor of every garage there shall be constantly kept and maintained convenient receptacles filled with sand to be used in absorbing waste oils on the floor; in addition thereto sand shall be kept on every floor in boxes or buckets provided with hand scoops to be used for fire extinguishing purposes only. There shall be one such box or bucket for each two thousand square feet of floor area or fraction thereof, or in lieu of such boxes or buckets there may be maintained a cart on wheels filled with sand, such cart to hold not less than four cubic feet of sand.

Sec. 10. There shall be maintained at least one chemical fire extinguisher for each two thousand square feet of floor space or fraction thereof.

Sec. 11. Self-closing metal cans set firmly on four-inch legs shall be kept on all floors of every garage, into which all inflammable waste materials shall be deposited at all times when not in use, and there shall be one such can for each twenty-five hundred square feet of floor area or fraction thereof. The contents of all waste cans shall be removed from the building daily.

Sec. 12. Calcium carbide shall be kept in air-tight containers of non-combustible material, preferably galvanized iron of not less than 18 U. S. metal gauge, with bottom at least six inches above the floor, and having securely fastened automatic closing covers.

Sec. 13. Two printed copies of this ordinance shall be kept conspicuously posted on each floor of every public or commercial garage.

Sec. 14. Any person, firm, or corporation who shall violate any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than five dollars (\$5.00) nor more than twenty-five dollars (\$25.00).

Sec. 15. All ordinances or parts of ordinances in conflict with the foregoing are hereby repealed.

Sec. 16. This ordinance shall take effect and be in force from and after its passage.

LIGHTING.

The kerosene lamp is fast going the way of the tallow candle as a means of lighting, not only in our cities and towns but even in many farm homes. Lighting by electricity is becoming more and more common and when properly installed it is not only cleanly but reasonably safe.

Our observation, however, has convinced us that much of the electric wiring done in the past is unsafe either by reason of improper installation of the wires or because the motors or generators are overloaded.

During the year 45 fires were reported as being due to defective electric wiring, involving a loss of \$62,032. I have no doubt but that this loss is not overstated, but am rather inclined to the opinion that a number of the fires whose cause is designated as unknown may be traced to this same source.

Provision should be made by ordinance in every city or town where an electric lighting plant is operated, for the thorough inspection by a competent electrician of all wiring installed.

In addition to the gas for light and fuel manufactured in most of our cities there are a number of special devices or preparations for generating gases for lighting purposes, which have been placed upon the market during the last few years. The variety of these methods or systems is such that a word of caution may not be out of order, as every little while some new plan or scheme is proposed along this line. As a rule the person who places these devices upon the market is interested in making a sale and for that reason presents their good points but never refers to their possible dangers.

To all those who contemplate the installation of special lighting plants, I would suggest that they thoroughly investigate, first, the safety, and secondly, the serviceability of the proposed system.

Generally speaking, the material of which the gas is made should be placed and kept outside the building which is to be lighted.

MOVING PICTURE SHOWS.

During the past year, the department has had numerous requests to inspect moving picture shows, especially the booths in which the machines are operated, as well as the exits. As nearly every town and city in the state has one or more of these places of amusement and as they are frequently crowded, a good share of the time by women and children, we have deemed it of the utmost importance that these places be arranged and conducted so as to insure the highest degree of safety to the people who may visit them.

For the guidance of city and town officials who may not have an ordinance governing this subject, I would respectfully suggest the following, which has the approval of the National Fire Protection Association and also of the National Board of Fire Underwriters:

AN ORDINANCE TO REGULATE THE EQUIPMENT AND OPERATION OF PICTURE MACHINES AND PREMISES WHEREIN THE SAME ARE OPERATED.

Be it Ordained by the of the of as follows:

SECTION 1. By the term "Picture Machine," as used in the following sections, is meant any machine or device operated by or with the aid of electricity, calcium light or other illuminant, and adapted or used to project upon a screen or other surface pictorial representations in which inflammable films are used.

SEC. 2. From and after the passage of this ordinance no picture machine shall be installed, maintained, operated or licensed, except when in conformity with the provisions of this ordinance.

SEC. 3. Every picture machine installed or operated shall be enclosed within a booth, to be not less than 6x8 feet in size and 7 feet high, the frame of which shall be composed of angle iron not less than 1½ inch by 1½ by ¼ inch, properly braced to secure rigidity, and securely riveted or bolted at the joints. Every such booth shall be sheathed and roofed with sheet iron of not less than No. 20 U. S. metal gauge, or with ½-inch hard asbestos board securely riveted or bolted to the angle iron frame; or 2 inches of solid metal lath and Portland cement plaster may be used.

(a) The booth shall be floored with the same material as the sides and roof, riveted to the iron frame and covered with some non-conducting material.

(b) The entrance door into the booth shall be no larger than 2 feet by 5 feet, of the same construction as the booth, and so arranged as to close automatically by metal rope and weight attachment, or by a spring of sufficient strength and tension to keep the door securely closed.

(c) The orifice or opening for the operator's view, or through which the picture is thrown, shall not be larger than 6 inches by 12 inches, and shall be provided with a gravity door of the same construction as the booth, which door shall be held open by fusible links placed in series with fine cords, so arranged that one of the links is suspended directly over the film when in the slide of the apparatus, or the door shall be so arranged as to be normally closed and held open by pressure of the operator's foot.

(d) All shelves, furniture and fixtures within the booth shall be constructed of incombustible material, and no combustible material of any sort whatever shall be permitted or allowed to be within such booth, except the films used in the operation of the machine.

(e) Each booth must have an opening not less than twelve inches in diameter, for ventilation, which must be flanged to carry standard conductor pipe for exhausting the hot air generated in operating the machine. Connection for ventilation should vent to chimney or outside of building, in order to carry off hot air or explosive gases.

SEC. 4. All picture machines shall be equipped with incombustible magazines for receiving and delivering the films during the operation of the machine. A shutter must be provided and placed in front of the

condenser of the machine, so arranged that same can be instantly closed by the operator. Films not in the machine shall be kept within the booth enclosing the machine in metal boxes, with tight-fitting covers. Hot carbons taken from the lamps shall be deposited in a metal receptacle.

SEC. 5. Portable cords shall not be allowed within the booth unless the same is pertinent to a proper connection to the lantern itself, and in all other respects the electrical wiring must be in accordance with the rules and requirements for electric wiring embodied in the National Electrical Code. Each lamp connected with a picture machine must be provided with a separate switch located within the booth. There shall also be two switches controlling the lights in the exhibition room, one of which shall be operated from the booth and the other so placed that it is within the reach of the ticket taker or other person stationed at the entrance door. There shall be provided a separate system of lighting, controlled by switches located within the reach of the ticket taker operating red signal lamps, and there shall be one such lamp placed at each exit, with a sign marked "EXIT" in letters not less than five inches high. The location of these signs and lights shall be determined by the Chief of the Fire Department.

SEC. 6. No picture machine shall be installed, maintained or operated in any building that does not abut directly upon a street, and in no case shall the main floor of such exhibition room be more than four feet above or below the adjoining street level. To overcome any difference of level on the ground floor gradients shall be employed of not over one foot in ten feet; no steps shall be permitted. Exit doors must be at the level of the sidewalk. In exhibition rooms directly abutting upon one street, the booth enclosing the picture machine shall be placed at that end of the room which is opposite and farthest from the street, or on a balcony. No room to be used as an exhibition room unless it has at least one separate and distinct exit in addition to the front exit. In exhibition rooms located at the corner and directly abutting upon two streets, or on a street and an alley, the booth enclosing the machine may be located at the end of the room opposite to and farthest from either street or alley. Every such room shall be provided with two exits, one upon each street or alley. All exits and entrances shall open directly from the exhibition room upon the street or alley or into a vestibule or lobby opening immediately into the street or alley. No exit in exhibition halls for picture machines shall be less than five feet wide and all exit doors shall be arranged to swing outward. The aggregate width in feet of such exits shall not be less than one foot to each twenty persons to be accommodated thereby. All aisles shall lead directly to exits and all exits shall be directly accessible to aisles. No aisle shall be less than three feet in width.

All seats in any exhibition hall for picture machines shall be securely fastened to the floor and shall be so arranged that there will not be more than six seats between an aisle and a wall and not more than twelve seats between two aisles.

No stage, platform or scenery shall be placed, maintained or allowed to remain in any exhibition room for picture machines unless of fire-proofed material.

SEC. 7. Incandescent electric lamps shall be used throughout for border lights, footlights and stage purposes.

SEC. 8. No individual, partnership or corporation shall be permitted to conduct the business of moving picture exhibitions, as herein described, until the applicant therefor has procured from the Chief of the Fire Department his certificate that the premises where the exhibitions are to be given and the apparatus used in connection with the said exhibitions are in compliance with this ordinance.

SEC. 9. The Chief of the Fire Department shall have authority and it shall be his duty to revoke the license issued to any person, firm or corporation for conducting or maintaining picture machine exhibitions, when he shall be satisfied that such licensee has violated any of the provisions of this ordinance. Provided, however, before revoking such license opportunity shall be given such licensee to appear before said Chief of the Fire Department and show, if possible, cause why the same should not be revoked.

SEC. 10. The requirements herein named so far as installation of moving picture device and the construction and location of booth are concerned shall apply to theatres, churches, schools and public halls.

SEC. 11. Any person or persons found guilty of violation of any of the provisions of this ordinance or failing to comply with the terms thereof, shall be fined not less than five dollars (\$5.00) nor more than twenty-five dollars (\$25.00) for each offense, and every day of maintenance of prohibited conditions shall constitute a separate offense.

SEC. 12. All ordinances or parts of ordinances in conflict with the foregoing are hereby repealed.

SEC. 13. This ordinance shall take effect and be in force from and after its passage.

STATISTICAL INFORMATION.

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

TABLE NO. 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 1913 were as follows:

Month.	No. of Fires.	Loss.
January	309	\$ 511,247
February	400	538,385
March	232	474,292
April	275	849,633
May	197	251,893
June	216	329,076
July	359	412,543
August	437	762,537
September	336	435,592
October	293	744,570
November	282	614,878
December	293	377,089
Total	3,609	\$6,292,645

The abnormally large fire loss during the month of April is accounted for by the fires which destroyed the Julian Hotel and the Cooper Wagon Factory, both at Dubuque, on the 7th and 8th, respectively, of that month. The loss resulting from these two fires aggregated \$421,108.

The otherwise large loss in the month of August was further augmented by the Creston fire which occurred on August 30th destroying the cold storage plant of Swift & Co., and some adjoining buildings, entailing a loss of \$155,300.

The exceedingly large October loss was occasioned by the fire at Ottumwa which occurred on the 19th of that month, destroying the Ottumwa Hardware Company's building and other adjoining property, resulting in a total loss of \$332,790.

There were two large fires in the month of November, increasing the aggregate loss of that month; to-wit, the fire at Davenport on November 13th, destroying the Schmitt property valued at \$142,991, and the fire which destroyed the plant of the Atlantic Canning Company at Atlantic on November 22d, resulting in a loss of \$114,000.

TABLE NO. II.

Table No. 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:

Dwellings	1,524
Barns	656
Stores	306
Sheds	76
Restaurants and cafes	65
Factories	55
Garages	59
Hotels	45
Hay, grain and straw stacks	38
Storage houses	38

BARN FIRES.

In my last report, I called attention to the large number of barn fires which annually occur. As most of these affected farm barns which were without any fire protection, the loss to buildings and contents was almost total.

* During the year 1913, 656 barns were destroyed or damaged, representing a value in buildings amounting to \$587,511 and a total damage to buildings in the amount of \$528,018; value of contents, \$437,439, and damage to contents, \$375,809.

As was the case a year ago, so now the decidedly greater number of barn fires occurred in the last half of the year or from July first, 1913, to January first, 1914. Of the 656 barn fires in 1913, 210 occurred during the first six months and 446 during the last six months. This large discrepancy between the losses on barns in the winter and spring and those in the summer and fall, must be accounted for, in part at least, as suggested in my former report, upon the theory that many of the fires were the result of spontaneous combustion caused by the storing and close packing of hay before the same was properly cured. The correctness of this theory is further fortified by the fact that of the 446 barn fires occurring during the last six months of the year, 222 occurred during the two months of August and September.

Undoubtedly the careless smoker and the man who scatters matches and match heads wherever he goes are also responsible for a great many of these fires.

The average farm barn as found in Iowa today, containing as it does high grade live stock and other valuable products of the farm, represents an investment, the loss of which is often severely felt, and for that reason alone it is important that the greatest care be exercised for the safety of these buildings. This is the only remedy I can suggest.

TABLE NO. 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.	Amount.
Unknown	964	\$2,880,982
Sparks from flue	381	136,088
Adjoining fires	296	912,770
Defective flues	273	286,491
Lightning	227	492,870
Spontaneous combustion	153	463,596
Incendiary and probably incendiary	116	147,118
Children and matches	98	52,280
Sparks from locomotive	91	101,575
Smokers' carelessness	69	85,069
Total	2,668	\$5,473,642

The fires reported as of incendiary or probably incendiary origin during the year 1913 number 116 or 3 $\frac{1}{2}$ per cent of the total number of fires reported, while the loss from said cause during the year aggregates \$147,118, or 2 $\frac{1}{2}$ per cent of the total loss.

During the year 1912 the incendiary or probably incendiary fires amounted to 3 $\frac{1}{2}$ per cent of the total number of fires reported, while the loss from said cause during that year amounted to 2 $\frac{1}{2}$ per cent of the total fire loss of the state.

During the last six months of the year 1911, that being the first six months of the existence of the state fire marshal's office, the incendiary or probably incendiary fires reported amounted to more than 4 per cent of the total number of fires and the loss from said cause during the same period was more than 10 per cent of the total loss then reported.

The number of fires of "unknown origin" still continues to head the list, both as to number and amount of damage. What a surprise it would be if the true origin of all of these fires could be definitely ascertained! No doubt the midnight incendiary and the cowardly sneak who sells out to some insurance company play a

not unimportant part in these fires of unknown origin. But the greater number of them are due to carelessness and want of cleanliness. The dirty basement and attic, the unsafe and sooty chimney, the improperly installed heating or lighting system, the inflammable oils carelessly stored and handled, the matches and match heads promiscuously scattered about, the smoker and his ubiquitous pipe or cigar, each and all contribute to the great unknown cause of fires.

The past year, like the two preceding ones, experienced quite a number of destructive lightning fires. I am firmly of the opinion that a well constructed lightning rod, thoroughly grounded, serves as a preventive of lightning fires. I am strengthened in this conviction by the fact that of the 540 lightning fires reported to this office since the first of July, 1911, only three affected property protected by lightning rods, and in at least one of these three cases the rods were old and defective.

The year 1913 was a severe one, so far as fire losses in Iowa were concerned; the total loss exceeding that reported for 1912 by \$1,350,625.

While some of this increase should be credited to the improved system of securing reports of fires and is therefore more apparent than real, the fact remains that the year just past, whatever of good it may have brought, left a bad fire record. It is to be hoped that the year 1914 will show a material reduction in this useless waste of our resources, and to the attainment of that end I invite the earnest and patriotic co-operation of all good citizens.

Respectfully submitted,

Oh O. Rae

State Fire Marshal.

TABLE NO. I.

SHOWING NUMBER OF FIRES REPORTED BY COUNTIES, 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	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	25	\$4,175	\$4,373	\$30,008	14	\$6,540	4	\$4,890
Adams	11	11,144	5,677	5,406	2	2,436	2	230
Albany	13	30,520	39,725	14,327	8	15,312	3	1,116
Albany	64	135,881	87,231	88,490	48	6,021	14	4,880
Audubon	7	33,100	22,250	30,000	6	7,300		
Benton	30	66,006	22,191	38,311	12	9,190	6	1,356
Black Hawk	99	966,498	113,228	329,056	35	31,000	10	5,830
Boone	100	160,132	44,144	88,780	14	8,872	8	683
Bremer	12	99,540	80,270	37,400	3	10,090	2	175
Buehanna	13	49,007	34,247	29,638	8	13,485		
Buena Vista	11	111,250	42,100	80,000	6	6,878	8	7,683
Butler	24	29,270	22,590	15,811	9	14,322	8	7,683
Calhoun	16	43,375	10,850	18,006	5	4,905	3	2,476
Carroll	23	154,405	138,229	65,232	22	80,018	6	2,620
Cass	100	387,200	156,517	328,335	19	86,706	15	6,646
Cedar	11	54,841	56,735	28,391	5	5,983	2	910
Cerro Gordo	83	678,665	191,573	411,010	30	59,412	11	6,395
Cherokee	22	92,714	63,870	49,775	14	14,607	6	2,175
Chickasaw	12	37,550	14,923	17,601	5	6,059	5	175
Clarke	21	65,856	26,182	41,100	7	10,030	5	3,400
Clay	8	49,102	29,602	28,574	6	11,329		
Clayton	35	171,549	68,572	22,525	25	43,847	2	5,200
Clinton	53	275,893	94,250	172,789	17	22,572	6	1,060
Crawford	23	27,046	22,606	10,927	11	13,819	9	4,930
Dallas	27	69,980	29,920	22,341	12	17,381	7	3,550
Davis	17	41,440	28,256	21,350	12	13,047	2	175
Deaatur	19	22,000	16,869	12,700	9	5,968	2	701
Delaware	18	69,625	38,241	31,075	12	16,500	3	285
Des Moines	48	490,575	220,202	40,028	8	10,028	4	1,100
Dickinson	7	39,780	37,745	27,463	4	10,980		
Dubuque	75	1,417,606	614,412	702,136	24	157,968	12	9,292
Emmet	17	74,710	18,249	22,585	6	7,935	2	1,865
Fayette	26	41,470	31,000	19,505	14	1,550	12	35
Floyd	25	84,579	46,587	41,914	13	19,190	3	2,230
Franklin	14	38,415	41,504	33,662	7	17,735	3	1,880
Fremont	37	87,842	62,842	22,202	13	8,860		
Greene	15	38,820	16,387	22,929	5	9,017	1	15
Grundy	14	62,300	45,125	31,410	6	20,300	1	250
Guthrie	24	69,585	28,607	36,225	13	11,735	2	35
Hamilton	70	28,450	11,400	12,400	4	6,850	6	4,520
Hancock	11	19,903	7,775	10,550	3	3,405	1	1,300
Hardin	38	138,972	94,710	67,012	21	68,862	4	697
Harrison	29	26,828	20,740	11,208	12	7,732	1	1,700
Henry	19	22,910	20,740	11,208	12	7,732	1	1,700
Howard	20	22,584	21,114	16,440	12	10,054	4	1,430
Humboldt	7	15,150	11,600	7,685	4	4,935	2	1,550
Ida	8	21,065	12,605	12,805	8	4,915	8	35
Iowa	18	81,865	29,160	9,610	10	21,410	7	12,880
Jackson	15	47,438	29,136	21,789	9	8,200	1	1,000
Jasper	49	299,738	81,718	113,272	6	960		
Jefferson	30	301,098	69,714	60,045	19	22,574	6	738
Johnson	44	149,002	74,611	88,025	16	30,080	9	4,860
Jones	11	28,945	7,329	14,714	4	4,601	3	3,890

TABLE NO. I—CONTINUED.

COUNTIES	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
Keokuk	17	77,276	29,611	32,538	16	13,218	4	2,000
Kossuth	17	50,886	17,820	33,470	10	4,286	1	3,000
Lee	197	1,086,745	105,567	149,228	23	15,258	21	4,391
Linn	100	670,351	99,327	149,730	13	20,369	13	4,444
Louis	18	48,236	38,000	27,320	11	15,070	4	1,040
Lucas	33	69,541	50,847	34,779	20	26,219	7	1,661
Lyon	5	35,000	16,425	12,000	5	6,175		75
Madison	19	29,988	21,968	14,821	13	9,547	5	2,230
Mahaska	26	116,020	80,117	66,006	10	20,115	3	235
Marion	28	100,156	122,400	47,232	17	20,300	8	380
Marshall	64	866,058	50,224	744,128	16	12,727	13	2,229
Mills	10	19,150	16,726	11,992	9	8,008		
Mitchell	10	14,046	5,786	8,210	7	2,601	1	6
Monona	14	21,700	16,240	14,712	10	6,628	2	520
Monroe	43	134,841	80,772	95,380	21	24,910	8	3,865
Montgomery	24	51,420	27,120	27,675	14	15,265		470
Muscatine	62	186,821	61,600	116,308	19	21,816	2	745
O'Brien	30	141,155	22,335	72,860	9	10,640	2	750
Oceola	3	11,100	2,065	4,300	1	250	1	120
Page	45	165,542	35,825	90,600	12	8,455	15	2,730
Palo Alto	12	56,965	15,365	30,380	10	5,475		
Pawnee	21	57,290	40,804	30,940	12	19,650	3	3,345
Pocahontas	21	100,221	66,525	61,432	14	32,004	1	1,000
Polk	287	3,187,270	393,225	2,139,044	62	44,287	50	12,545
Portwattamie	190	406,402	139,025	595,081	49	62,174	8	253
Poweshiek	28	198,265	16,438	78,150	9	4,396	2	96
Ringgold	26	41,716	31,278	29,000	14	11,418		
Sac	23	91,028	79,575	41,468	17	41,123	4	1,185
Scott	162	1,778,650	392,711	906,465	23	83,255	21	7,619
Shelby	22	48,190	34,023	28,400	13	13,015	5	2,220
Sioux	25	115,600	69,743	11,000	17	17,475	4	8,700
Story	43	289,406	95,743	79,570	18	66,360	8	40,740
Tama	14	43,700	8,889	27,595	5	2,775	3	600
Taylor	22	79,334	43,026	63,675	13	12,884	2	600
Union	45	252,210	287,094	30,800	30	122,481	6	2,900
Van Buren	18	37,425	23,981	19,575	15	10,100		
Wapello	97	861,334	494,867	639,700	35	77,110	9	1,080
Warren	33	93,164	68,239	35,165	21	22,349	6	4,450
Washington	14	14,750	13,220	10,643				
Wayne	37	115,605	72,948	70,000	28	29,675	3	1,020
Webster	60	425,227	139,417	138,177	25	44,257	7	1,990
Winnebago	12	10,175	13,160	6				
Winneke	14	48,850	32,066	30,150	5	10,175	3	325
Woodbury	230	2,468,390	229,738	1,000,685	24	65,425	27	28,635
Worth	7	17,600	19,777	7,440	5	6,710	2	1,000
Wright	20	118,625	84,770	51,790	11	53,000	3	5,835
Totals	5,600	\$22,481,725	\$6,192,645	\$13,612,985	1,978	\$2,222,696	628	\$279,067

TABLE NO. II.

SHOWING THE NATURE AND CHARACTER OF THE BUILDINGS DESTROYED OR DAMAGED, THE VALUE OF EACH, THE DAMAGE THEREON, THE VALUE OF THE CONTENTS OF EACH AND THE DAMAGE THEREON, 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	Concrete or stone	Loss on Buildings		Loss on Contents		
									Total	Partial	Total	Partial	
Automobiles	23	41,500	2,920			23					1	21	6
Bakeries	12	22,000	8,538	30,800	10,000	8	4		7	5	1	6	6
Band stands	1	300	30										
Banks	7	120,500	4,018	10,000	1,918	1	6						
Barns	660	527,511	328,015	437,439	275,899	663	3		336	117	442	118	118
Barrels—pile of	1			9,000	171	1	2						
Bicycle and motorcycle shops	3												
Boats	2	9,750	1,450			2				2			
Boat houses	1	20	20	200	100	1							
Boiler rooms	1	22,800	328	3,000	60	1	4	1	1	5	1	5	1
Boiler works	2	10,282	4,380	22,700	19,000	2				2			
Bottling works	2	25,500	82	6,000		2	1	1		2			
Breweries	1	30,000	10	50,000	5	1				1			
Bridges	6	351,700	1,471			6			3				
Cars—Baggage cars	2	8,000	60			2							
Box cars	13	7,000	3,245	5,544	3,045	13			4	8	1	4	4
Blank cars	1	500	50	20	25	1							
Coal cars	1	900	50	75	10	1							
Flat cars	1	500	25			1							
Refrish cars	1	700	35			1							
Stock cars	4	4,265	4,000	2,100	1,800	4			1				
Street cars	1	19,200	2,245			1							
Way cars	1	2,000	30			1							
Carload of flour	1			1,000	800	1							
Churches	25	261,220	30,644	23,600	10,913	17	7	1	9	16	4	9	9
City halls	2	10,500	2,523	5,875	1,100	4	1		3				
Cleaning and dyeing establishments	4	7,800	1,610	11,636	3,715	5	3			7			
Coal bins and storage	4	5,270	460	5,000	800	4				2	1		
Coal chutes	2	3,400	45	100	55	2							
Coal mines	2	16,200	3,300			2			1	1			
Colliums	1	21,000	10,445	6,000	3,601	1				1			
Colleges and college dormitories	2	29,300	15,600	30,045	25,080	1	2		1	3	6	3	3
Creameries	15	128,700	127,278	82,600	82,247	11		2		8			
Culverts	1	10	10			1			1		1		
Dairy houses	1	2,000	2,000	500	500	1				1			
Dance halls	2	5,000	1,000	15,000	15,000	2				1			
Dental supply houses	1	5,000	500	5,000	1,000	1							
Depots	1	72,712	5,473	2,700	2,007	9	3		4	8	2	1	1
Dynamos	1	35	5	300	6	1							
Elevators	22	114,800	91,722	55,445	45,120	21	1		16	5	13	4	4
Engines	7	5,200	2,015	15,000	12,500	6	1		10	3	1	3	3
Factories	605	808,002	126,130	1,326,822	332,780	30	24	1	10	41	6	43	43
Farm implements and wagons	8			4,540	1,240	4							
Fence and sidewalks	4	225	110			4			2				
Foundries	14	232,100	30,000	125,000	20,422	4	9	1	1	11	1	5	5
Freight houses	6	16,300	1,545	9,400	5,400	6		1	2	4	3		
Freight platforms	2	600	102			2							
Garages	80	136,125	50,874	316,050	79,810	82	13		15	28	12	28	28
Gas works	6	100,000	12,700	28,000	7,300	2	6	1	1	7			
Granaries and corn cribs	21	11,150	10,728	12,744	11,118	21			20	1	16	5	5
Grand stands	1	6,000	6,000	700	700	1							
Greenhouses	1			2,000	5	1							
Hay, straw and straw stacks	38			9,311	5,980	4					30	3	3
Hen houses	18	3,800	5,080	1,000	1,000	18			11	7	6	3	3
Hog houses	4	1,000	1,430	550	800	4							
Homes and boarding schools	2	85,000	1,340			1	1						
Hospitals	6	128,600	4,007	66,000	3,300	2	4		2	4	1	3	3
Hotels	63	1,128,605	273,012	492,620	84,037	55	29		10	30	6	24	24
Houses—Apartment houses	11	26,400	2,000	8,400	1,212	10	1		1	10			
Boarding houses	1	2,000	2,000	300	300	1					1		
Dwellings	1,854	2,227,227	708,181	879,721	252,790	1,462	18	3	389	1,063	178	794	794
Flats	25	161,800	6,300	50,900	1,200	13	12		1	22		21	21
Rooming houses	21	40,925	44,920	19,900	12,402	21			16	6	2	13	13
Ice houses	1	200	200			1							
Jails	1	925	925			1							
Laundries	15	10,000	10,000	99,001	24,000	6	10		1	12	1	13	13
Light plants	2	6,800	2,915	18,000	6,750	1	2			1	2		
Livery stables and feed barns	22	99,200	15,601	56,870	29,644	27	4	1	19	12	13	14	14
Lodge halls and club rooms	10	177,000	10,827	25,300	5,600	4				1	1		
Lumber yards	6	2,000	7,170	38,000	37,500	6			3	1	3	1	1
Machine shops	2	28,000	1,520	102,300	2,800	1	2		1	2			
Meadows and pastures	10			1,125	1,125								
Mills	14	250,700	100,800	504,075	22,520	10	2	1	8	6	9	4	4
Moving picture shows	8	60,000	5,141	15,970	2,845	1	7		1	6	2		
Office buildings and offices	24	661,400	60,757	118,500	22,454	11	23	1	3	25	3	18	18
Oil storage	6	2,400	706	36,402	607	4			3	2			
Orchards	1			300	300						1		

TABLE NO. III.

CONTAINING 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.

Origin	Number	Damages to buildings and contents
Automobile backfire	14	4,363
Adjoining fire	296	912,773
Asies in basement	2	1,800
Asies against wood	20	12,210
Backsmith forge	1	500
Bonfire	28	12,066
Burning rubbish	19	13,568
Burning old straw stack	1	500
Burning cockroaches	1	500
Burning flies off porch	1	50
Burning meadows and grass	1	1,420
Burning insects in hen house	1	50
Burning sulphur for bleaching brooms	1	500
Burning sulphur to kill insects	1	2,712
Boiling carbolic acid on gas stove	1	100
Blow torch	8	1,016
Candle carelessness	9	4,542
Chemical explosion	2	40,300
Children and matches	18	27,280
Children playing with fire	3	2,760
Christmas trees and decorations	3	880
Clothing near chimney and steam pipes	6	4,171
Collapse of building	1	5,500
Curtain blowing over electric light	1	215
Curtain blowing into flame	1	1,880
Curtains blowing against stove	4	1,045
Defective acetylene plant	2	8,250
Defective boiler	2	25
Defective electric motor	1	450
Defective fire places	10	7,877
Defective flues	273	290,491
Defective furnaces	15	51,070
Defective gas heater and jet	2	1,320
Defective gasoline engine	2	2,000
Defective gasoline lighting system	2	10,560
Defective heating plant	1	2,100
Defective hot air pipes	4	808
Defective oil stoves	27	5,068
Defective oven in bakery	1	99
Defective smoke stack	1	2,500
Defective stove	10	9,471
Defective stovepipe	27	7,487
Defective electric wiring	45	62,302
Electric fuse burned out	1	200
Electric heater in candy factory	1	227
Electric iron carelessness	1	6,208
Explosion in furniture store	1	2,000
Explosion of dust in feed mill	1	2,500
Explosion in paper mill	1	1,000
Explosion of picture developer	1	3,500
Explosion of roofing cement on stove	1	700
Fireworks	14	1,785
Flat iron in bed	1	161
Forge near workshop	1	25
Friction of machinery	4	18,300
Friction of pulleys	2	1,800
Fumigation	1	25
Furnace explosion	1	500

TABLE NO. III—CONTINUED.

Origin	Number	Damages to buildings and contents
Furnace near ceiling or woodwork	2	200
Furnace pipe unprotected	1	150
Gas explosion	8	2,490
Gas jet near wall	3	148
Gas leak	5	872
Gas stove explosion	4	1,706
Gasoline carelessness	22	7,523
Gasoline—cleaning with	9	1,060
Gasoline coffee urn explosion	3	5,415
Gasoline engine backfire	4	2,640
Gasoline engine exhaust	2	6,150
Gasoline explosion	44	27,083
Gasoline heater	1	275
Gasoline pipe leak	4	12,780
Gasoline stove near curtains and woodwork	2	22
Gasoline tank leak	2	520
Grease in oven or near stove	9	1,387
Harness oil near fire	1	1,440
Heating paint on stove	2	250
Hot box on engine	1	366
Incendary and probably incendiary	116	147,118
Incubator	4	1,698
Jack-o'-lantern	1	50
Joists against chimney	1	800
Kindling near stove or furnace	4	1,510
Lamp or lantern carelessness	11	13,820
Lamp or lantern explosion	17	19,800
Lamp or lantern upset	14	9,518
Lard rendering	1	1,200
Lightning	227	402,070
Live coal carelessness	2	1,828
Match carelessness	60	20,868
Motor burning out	2	220
Moving picture films	2	400
Oil can explosion	2	636
Oil rag carelessness	7	2,225
Oil or gasoline stove explosion	60	28,491
Oil stove too near wall	3	121
Overheated bearings	1	10,000
Overheated boiler	1	25
Overheated coffee roaster	1	2,072
Overheated converter	1	25
Overheated cupola	1	17,000
Overheated electric coil	1	45
Overheated fireplace	2	872
Overheated flue	6	865
Overheated furnace	20	6,928
Overheated gas heater	8	25
Overheated gas pipe	1	912
Overheated hot air pipe	1	4,204
Overheated kiln	1	5,000
Overheated motor	2	95
Overheated oven in bakery	1	250
Overheated paste cooker in laundry	1	1,800
Overheated steam pipe or radiator	2	725
Overheated stove	8	29,012
Overheated stovepipe	23	7,170
Rags or paper in flue hole	4	615

TABLE NO. III—CONTINUED.

Origin	Number	Damage to buildings and contents
Rubbish in or near building.....	24	9,189
Rubbish near gasoline engine.....	1	1
Rubbish near stove or furnace.....	4	636
Bag against oil stove.....	1	75
Shavings in planing mill.....	1	5,000
Smoker's carelessness.....	60	85,000
Smoke house fire.....	9	1,196
Smoking out box.....	1	330
Soldering gasoline tank.....	1	1,600
Sparks from ash pile.....	1	50
Sparks from boiler.....	1	7,400
Sparks from cupola.....	4	19,000
Sparks from cement dryer.....	1	65,000
Sparks from dynamo.....	1	15
Sparks from flue.....	361	138,000
Sparks from gasoline engine.....	3	1,900
Sparks from locomotive.....	91	101,570
Sparks from retort.....	1	300
Sparks from smoketank.....	7	1,714
Sparks from stove.....	6	2,380
Sparks from traction engine.....	4	8,986
Sparrow's nest near chimney.....	1	21
Spontaneous combustion.....	133	495,590
Starting fire with coal oil.....	3	5,335
Stove blow out.....	3	9,368
Stove too near wood.....	14	7,122
Stovepipe through floor or ceiling.....	5	1,200
Stove pipe too near ceiling or woodwork.....	14	7,330
Stove polish explosion.....	22	22,435
Supposed fire and matches.....	2	25,435
Taylor's iron carelessness.....	1	3,145
Tank heater in granary.....	1	750
Tar pot boiling over.....	2	101
Thawing frozen water pipes.....	6	445
Towel about electric light globe.....	1	10
Tramps.....	12	10,000
Unknown.....	904	7,300,602
Varnish vat upset.....	1	5,007
Varnish explosion.....	1	300
Vulcanizing machine.....	3	375
Whip hot stove with mop.....	1	75
Wood near hot iron in foundry.....	1	1,000
Total.....	2,000	\$ 6,302,645

TABLE NO. IV.

GIVING THE CITIES AND TOWNS IN WHICH INSPECTIONS OF DELAPIDATED BUILDINGS AND INFLAMMABLE CONDITIONS HAVE BEEN MADE DURING THE YEAR 1915. THE NUMBER OF PLACES INSPECTED AT EACH POINT AND THE NUMBER AND KIND OF ORDERS ISSUED IN CONNECTION THEREWITH.

CITY	Date	Number of inspections	Clean-up	Repair	Change	Removal	Clean and repair
Aurelia.....	July 11.....	4		2		2	
Atlantic.....	Aug. 8.....	2			1		1
Alicon.....	Aug. 20.....	2				2	1
Avoca.....	Sept. 25.....	8	7				
Anita.....	May 14.....	2		2			
Algona.....	July 22.....	10					10
Bloomfield.....	Oct. 7.....	8		5			
Burlington.....	Aug. 2.....	2				2	
Boone.....	Oct. 23.....	1					
Bayard.....	June 5.....	1		1			
Bloomfield.....	June 1.....	1		1			
Burlington.....	Aug. 16.....	1				1	
Buffalo Center.....	Oct. 15.....	10		10			
Creston.....	April 12.....	12			1	6	6
Council Bluffs.....	July 21.....	1				1	
Colfax.....	March 21.....	4				2	2
Creston.....	May 15.....	2					
Colfax.....	May 2.....	12	3	1	6	4	
Chariton.....	July 2.....	2		1	1	1	
Chariton.....	Jan. 27.....	8					8
Carroll.....	April 2.....	1				1	
Coln.....	April 26.....	4		4			
Charles.....	Jan. 17.....	2		2			
Carroll.....	Sept. 17.....	1			1		
Council Bluffs.....	Sept. 19.....	1				1	
Cambridge.....	Oct. 13.....	2		4			
Charles City.....	Oct. 14.....	2		2			
Creston.....	Dec. 30.....	2			1	1	
Dubuque.....	Sept. 3.....	1				1	
Des Moines.....	April 14.....	4		2		2	
Decorah.....	May 23.....	4	1		2	1	
Delmonco.....	Sept. 15.....	1					
Davenport.....	Dec. 18.....	1			1	1	
Des Moines.....	April 2.....	1				1	
Decorah.....	Jan. 2.....	20	28				
Decorah.....	Jan. 30.....	4	4				
Dyersville.....	March 28.....	2				2	
Eatherville.....	Dec. 10.....	12	1	2	1	4	5
Eatherville.....	Priv.	2				1	
Elkhart.....	Aug. 26.....	1			1		
Fl. Dodge.....	March 12.....	2				2	
Fonda.....	March 28.....	1	4				1
Fl. Dodge.....	Aug. 27.....	1				1	
Fl. Dodge.....	April 2.....	1				1	
Ferris.....	April 2.....	1		1			
Glenwood.....	March 27.....	23	12	2	4		
Harlan.....	Sept. 25.....	2					2
Harper.....	July 11.....	6				2	
Harper.....	Oct. 14.....	6		7			
Harper.....	May 27.....	2					
Ionia.....	April 26.....	2		1	1	1	
Imogene.....	July 29.....	3	1	1			
Indianola.....	Oct. 7.....	12		9		2	
Imogene.....	June 17.....	5					
Iowa City.....	Sept. 1.....	4				4	

TABLE NO. IV—CONTINUED.

CITY	Date	Number of Inspections	Clean-up	Repair	Change	Removal	Clean and Repair
Jefferson	Aug. 29	2		1	1		
Knoxville	Jan. 28	4				2	2
Kookuk	Aug. 8	1			1		
Knoxville	Nov. 13	2		2			
Linden	Jan. 11	2				1	
Lake Tree	Feb. 19	4				2	
Lake Park	Dec. 9	2			1	2	
Mason City	April 25	6	1		2		
Marshalltown	Sept. 23	2	1			1	
Marengo	Nov. 11	2		1		1	
Muscatine	Dec. 19	1			1		
Marshalltown	April 12	1				1	
Manilla	April 24	3		2			
Nevada	Feb. 6	1	1				
New Sharon	May 20	2	1				1
Osage	July 9	2				1	1
Ocheyedan	April 4	1					1
Ottumwa	Nov. 29	1			1		
Osawa	Sept. 18	1					
Poeshontas	Mar. 21	16	8		3	2	
Pleasant Plain	Oct. 6	1				1	
Perry	Sept. 8	15	8		1	6	
Postville	March 28	1					1
Parnell	July 11	2		2			
Pacific Junction	Sept. 19	5		3			
Red Oak	April 24	3	1			2	
Red Oak	Aug. 1	10	10				
Red Oak	Oct. 8	14	11			3	
Sioux City	April 22	22		2		15	
Suberland	May 17	13	2		4	3	
Sheldon	July 18	14	7		3	2	1
Sae City	May 26	17	11	1	4	1	1
Sioux City	Dec. 20	1					
Sidney	Sept. 26	3				2	1
Sioux Rapids	Jan. 21	25	17	1	1	1	6
Sidney	Feb. 13	1				1	
Shenandoah	Oct. 9	2		2			
Storm Lake	Oct. 22	2		7		1	
Toledo	Aug. 5	4				4	
Tingley	Sept. 22	1					
Unionville	May 2	1	1				
Victor	March 21	5				1	4
Villisca	Feb. 10	1				1	
Waverly	Aug. 15	2			2		
Winterset	Sept. 13	2	1			1	
Williamsburg	Dec. 31	1					
Whitemore	Dec. 11	3			1		2
Westfield	April 5	1				1	
Wapello	May 19	2		2			
Williamsburg	July 11	12	12				
Webster City	Oct. 21	2		1		1	
Washington	Sept. 23	1					
Totals		624	155	126	47	119	57

TABLE NO. V.

GIVING PLACES AT WHICH INVESTIGATIONS OF FIRES OF SUSPICIOUS ORIGIN HAVE BEEN MADE DURING THE YEAR 1913, AND THE DATE WHEN SUCH INVESTIGATION BEGAN.

County	Place	Date Commencing Investigation
Adair	Stuart	June 4
	Pontanelle	June 12
	Near Orient	November 17
Allamakee	Postville	March 27
Appanoose	Centerville	March 20
	Brazil	March 21
	Near Mystic	October 14
	Mystic	October 15
	Mystic	October 16
Benton	Shellsburg	October 8
Black Hawk	Waterloo	April 12
	Waterloo	April 27
	Waterloo	August 12
Boone	Berkley	September 3
	Boone	December 17
	Berkley	December 18
Buchanan	Jeup	November 4
Buena Vista	Sioux Rapids	January 14
	Marathon	April 29
Butler	Shell Rock	April 30
	Clarkville	April 30
	Near Clarksville	May 8
Calhoun	Lake City	August 21
Cass	Atlanta	January 7
	Anita	May 12
	Anita	May 13
	Atlanta	August 6
	Atlanta	August 7
	Atlanta	August 8
	Near Lyman	December 3
	Atlanta	December 4
Cerro Gordo	Mason City	October 4
	Mason City	November 18
Cherokee	Aurelia	July 9
	Near Aurelia	July 14
Clarke	Hopeville	March 12
	Murray	March 14
Clay	Near Spencer	January 13
Clayton	Garber	January 10
Crawford	Manilla	May 6
Dallas	Redfield	September 8
	Near Wauke	September 20
	Dawson	October 13
Davis	Bloomfield	June 13
	Bloomfield	June 24
	Bloomfield	December 12
Decatur	LeRoy	September 23
	Davis City	December 13
Delaware	Masonville	June 27

TABLE NO. V—CONTINUED.

County	Place	Date Commencing Investigation
Des Moines	Near Oakville	June 19
	Near West Burlington	August 5
	Latty	August 9
	Near West Burlington	August 13
Dickinson	Superior	January 30
Dubuque	Dubuque	February 20
	Dubuque	September 8
	Dubuque	September 8
Emmet	Etherville	February 6
Franklin	Hampton	April 29
	Sheffield	May 8
Fremont	Hamburg	February 12
	Hamburg	February 13
	Hamburg	February 13
	Tabor	February 27
Greene	Grand Junction	August 18
Guthrie	Bayard	June 6
Hawley	Iowa Falls	September 25
	Alden	September 26
Harrison	Missouri Valley	January 10
Iowa	Williamsburg	December 20
Jackson	Sabula	September 23
Jasper	Colfax	October 10
	Colfax	October 10
	Ira	November 14
Jefferson	Near Fairfield	November 30
	Near Fairfield	November 30
	Near Fairfield	November 31
	Liby	December 10
Johnson	Ooralville	February 21
	Iowa City	September 1
Keokuk	Near Oile	May 23
	Oile	June 15
	Hedrick	October 22
	Kinross	October 25
Kosuth	Algona	July 21
Lee	Pt. Madison	April 7
	Pt. Madison	May 20
	Keokuk	June 23
	Keokuk	August 29
	Keokuk	October 2
	Keokuk	October 2
	Pt. Madison	October 3
Linn	Cedar Rapids	March 10
	Cedar Rapids	May 8
	Alburnett	May 15
	Cedar Rapids	August 20
	Cedar Rapids	October 21
	Cedar Rapids	November 28
	Cedar Rapids	November 29
	Cedar Rapids	December 29
Louisa	Oakville	May 14
Lucas	Russell	May 27
	Russell	September 24

TABLE NO. V—CONTINUED.

County	Place	Date Commencing Investigation
Lyon	George	May 9
Madison	Winterset	August 5
	Union Township	August 5
	Near Winterset	August 8
Mahaska	Lakota	January 28
	Oskaloosa	April 29
	Oskaloosa	August 17
	Oskaloosa	August 17
	Oskaloosa	November 10
Marion	Dallas	May 16
	Everett	June 28
	Knoxville Township	November 10
	Knoxville	November 12
Marshall	Gilman	March 4
	Quarry	August 29
	Marshalltown	September 13
	Marshalltown	September 29
	Marshalltown	December 14
Monona	Rimcoe	February 18
	Rimcoe	February 19
Monroe	Buxton	May 1
	Hynes	May 2
	Albia	November 26
Montgomery	Villisca	February 17
	Red Oak	August 1
	Cohurg	October 24
O'Brien	Sheldon	August 25
Oscola	Ocheyedan	April 4
Plymouth	Hancock Township	May 7
	Merrill	December 19
Pocahontas	Pocahontas	March 22
Polk	Des Moines	February 2
	Des Moines	March 4
	Des Moines	March 19
	Des Moines	March 21
	Des Moines	April 14
	Des Moines	June 9
	Des Moines	June 24
	Des Moines	July 1
	Des Moines	August 1
	Des Moines	August 27
	Elkhart	September 15
	Des Moines	October 19
	Des Moines	October 26
	Des Moines	October 27
	Des Moines	December 1
	Altoona	December 1
	Des Moines	December 28
	Des Moines	December 29
Pottawattamie	Council Bluffs	February 17
	Council Bluffs	February 17
	Council Bluffs	April 2
	Council Bluffs	April 21
	Council Bluffs	June 6
	Council Bluffs	July 30
	Council Bluffs	September 25
	Council Bluffs	October 22
	Council Bluffs	November 3
Ringgold	Kellerton	November 21

TABLE NO. V—CONTINUED.

County	Place	Date Commencing Investigation
Sac	Auburn	August 8
	Auburn	August 8
Scott	LeClaire	January 15
Shelby	Defiance	December 5
Seely	McCallaburg	August 4
Taylor	Clearfield	May 27
Union	Creston	September 10
	Afton	November 19
	Creston	December 20
Van Buren	Hillsboro	December 9
Wapello	Bishopburg	October 14
	Near Ottumwa	November 20
	Ottumwa	November 25
	Near Ottumwa	November 25
Warren	Ottumwa	November 25
	Ottumwa	November 25
Warren	Carlisle	December 30
Washington	Alnsworth	September 24
	Alnsworth	October 1
Wayne	Humeston	May 2
Webster	Otho	April 7
Winnebago	Decorah	January 4
Woodbury	Sioux City	January 6
	Sioux City	April 23
	Sioux City	April 22
	Sioux City	April 22
	Sioux City	April 22
	Sioux City	April 24
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
	Sioux City	April 25
Wright	Eagle Grove	May 2

FOURTH ANNUAL REPORT

OF

STATE FIRE MARSHAL

TO THE

GOVERNOR OF IOWA

OLE O. ROE
State Fire Marshal