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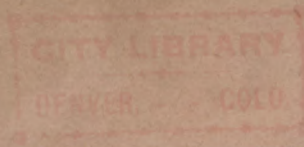
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*19th and 10th*

# Annual Reports

of the

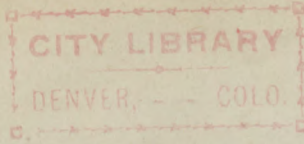
# State Inspector of Boilers

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For the Years 1897 and 1898



Denver, Colorado  
The Smith-Brooks Printing Company  
1898



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# Annual Reports

of the

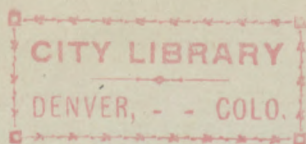
# State Inspector of Boilers

For the Years 1897 and 1898



Denver, Colorado  
The Smith-Brooks Printing Company  
1898





Ninth Annual Report  
of the  
State Inspector of Boilers

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Office of State Boiler Inspector,  
Denver, Colorado, November 30, 1897.

TO HIS EXCELLENCY,  
ALVA ADAMS,  
GOVERNOR OF COLORADO.

Sir—In compliance with the law "Establishing the Office of Inspector of Steam Boilers and Defining the Duties of the Inspector," I have the honor of submitting to you the ninth annual report of this office, embracing a period of one year, beginning December 1, 1896, and ending November 30, 1897.

During that time eight hundred boilers were inspected, fees collected and certificates issued for them. There have been a number inspected which have not been paid for yet; certificates will be issued for them as soon as fees are collected and they will be included in the report for 1898. During the year two hundred and forty-six boilers were found defective, of which ninety-six were dangerous.

There have been two boiler explosions during the year, one on February 15, at the Galena mine, Central City, and one on June 18, at a sawmill on Beaver creek,

in Fremont county. The explosion at Central City was caused by the engineer in charge of the plant. He put a valve between the boiler and safety valve and shut this valve at night; he also banked his fire heavily with coal and closed the damper; the damper was in a sheet iron stack; a wind storm came up in the night and blew off the stack, taking the damper with it, this started the fire, and there being no escape for the steam it went up until the boiler exploded. The engineer admitted he was to blame for putting a valve between boiler and safety valve and shutting it.

The explosion in Fremont county was a boiler which had been used by The United Oil Company, at an oil well in Florence. It was condemned by the Boiler Inspector and thrown out by the oil company and left laying on the prairie. Mr. A. J. Rishel took the boiler away without asking for it. He put it in service without notifying this office, and the boiler exploded, killing him and his father, George W. Rishel.

This report should have reached you before this, but owing to the fact that I was busy, and having no clerical assistance it was overlooked.

The total receipts and expenses of this office are given as follows:

Total receipts.....	\$4,000 00
Salary of inspector.....	\$2,500 00
Salary of deputy.....	950 00
Expense account.....	500 00
	<hr/>
	\$3,950 00    3,950 00
	<hr/>
Surplus .....	\$ 50 00

Respectfully submitted,

RICHARD KETT,

Steam Boiler Inspector.



Tenth Annual Report  
of the  
State Inspector of Boilers

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Office of State Inspector of Steam Boilers,  
Denver, Colorado, November 30, 1898.

TO HIS EXCELLENCY,  
ALVA ADAMS,  
GOVERNOR OF COLORADO.

Sir—In compliance with the law "Establishing the Office of Inspector of Steam Boilers and Defining the Duties of the Inspector," I have the honor of submitting to you the tenth annual report of this office, embracing a period of one year, beginning December 1, 1897, and ending November 30, 1898.

The total number of boilers inspected during the year was one thousand one hundred and seventy-seven. Of these one thousand one hundred and thirty have been paid for and fees turned over to the state treasurer, twelve are situated at state institutions, for which, by the advice of the honorable attorney general, no fees have been collected, and thirty-five have not been collected yet.

During the year I have found it necessary to condemn nine boilers from further use.

I am pleased to report that there has not been a single boiler explosion in the state during the year.

The number of boilers in use in the state is rapidly increasing, and in many cases they are in isolated places, removed a long distance from the railroads, taking a great deal of time and considerable expense to reach them. A great many of these are boilers that have been shut down for a few years and are now being put into use again. It is necessary that these boilers be inspected before they are used. This requires special trips being made to these places, aside from the regular annual inspection trips in that district.

The law also provides that a record be kept of all boilers that are inspected. During my term of office there has been no appropriation made for any clerical assistance, consequently, in order to attend to correspondence and keep a record of the work done, it requires a great part of the time of myself or assistant to be spent in the office.

During the fiscal year of 1898 I have kept an assistant fully employed, and am still behind with the work.

I would respectfully recommend that an appropriation be made for one more assistant, also for actual traveling expenses of assistants.

The receipts of the office during the past year will, I believe, justify me in saying that, if given the assistance asked for, the work can be done promptly and well, and the office be self-sustaining.

In regard to this I may say that the duties of this office, as outlined by the law, are so great, considering the increase in the number of boilers, that without the necessary appropriation it is impossible to perform them as the law requires.

The defects are classified as follows:

	Total Defects.	Dangerous.
Safety valves defective in construction.....	167	62
Boilers without safety valves.....	5	5
Defective pressure gauges.....	164	43



# BOILER INSPECTOR OF COLORADO.

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	Total Defects.	Dangerous.
Defective heads.....	28	11
Broken and loose braces.....	75	23
Defective settings.....	117	77
Boilers without pressure gauges.....	9	9
Defective water gauges.....	133	103
Boilers in which all water gauges were defective..	14	14
Defective bracing.....	68	15
Defective blow-offs.....	37	18
Boilers without blow-offs.....	1	1
Burned plates.....	156	43
Blistered plates.....	63	33
Bagged plates.....	37	11
Cases of internal grooving.....	47	15
Cases of internal incrustations and deposit.....	317	45
Cases of external corrosion and leakage.....	91	27
Mud drums condemned.....	6	6
Cases of pitting.....	147	29
Cracked flue sheets.....	3	3
Total .....	1,685	593

The total receipts and expenditures for the fiscal years of 1897 and 1898 are given below as follows:

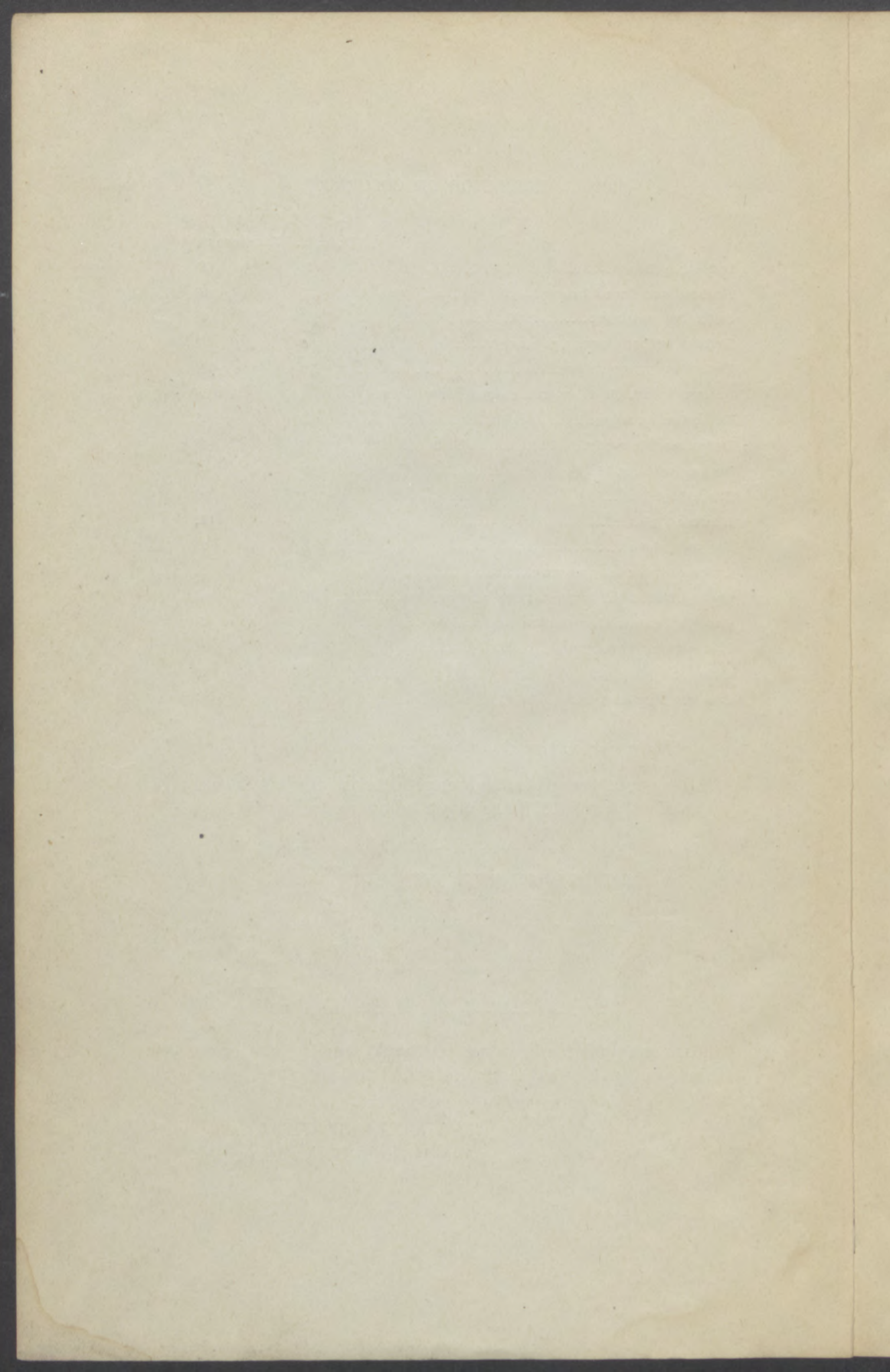
Receipts .....	\$9,650 00	
Salary .....	\$5,000 00	
Assistant .....	2,411 00	
Expense .....	1,000 00	
Total .....	\$8,411 00	8,411 00
Surplus .....		\$1,239 00

In conclusion allow me to thank you for the courtesies you have at all times extended to this office.

Respectfully submitted,

RICHARD KETT,  
State Boiler Inspector.





# APPENDIX.





# APPENDIX.

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## INSPECTOR OF STEAM BOILERS.

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(H. B. 66.)

### AN ACT

ESTABLISHING THE OFFICE OF INSPECTOR OF STEAM  
BOILERS, AND DEFINING THE DUTIES OF THE IN-  
SPECTOR.

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*Be it enacted by the General Assembly of the State of Colorado:*

Section 1. The Governor of the State of Colorado shall, by and with the advice and consent of the Senate, on or before April 1, 1889, appoint an inspector of steam boilers. The person so appointed shall be well qualified, from practical experience in the use and construction of boilers, generators, super-heaters, and their appurtenances, used for the generating of steam for power, steaming or heating purposes, and shall be neither directly nor indirectly interested in the manufacturing, ownership or agency of same. The duty of said inspector shall be to inspect steam boilers throughout the State, as hereinafter specified and directed. The inspector shall hold office for the term of two years from the date of his appointment, and until his successor shall be appointed and qualified, and before entering on the duties of his office he shall give a good and sufficient bond in the sum of five thousand (5,000) dollars for the faithful performance of his duties, to be approved by the Attorney Gen-



eral and deposited with the Secretary of State. Said inspector shall receive an annual salary of two thousand five hundred (2,500) dollars, and mileage at ten cents per mile, payable as other State officers; *Provided*, He shall not receive mileage to exceed five hundred dollars in any one year. Said inspector may appoint deputy inspectors in each judicial district in the State, and who shall have the same powers as the inspector, who shall receive as compensation four dollars per day while actually employed, and shall be paid in the same manner as other State officers, and mileage at ten cents per mile. He may also employ a clerk at an annual salary not exceeding one thousand (1,000) dollars, to be paid monthly, as other State officers.

Sec. 2. The inspector shall devote his time and attention to the duties of the office. He shall carefully inspect and test every stationary boiler and steam generating apparatus under pressure used for stationary power, as provided by this act, including all attachments and connections, located within the State of Colorado, once annually, and shall give the owner or user of any steam boiler five days' notice of the time when he shall make such inspection; *Provided*, That any owner or user of any steam boiler in this State who may desire to insure such boiler in any reputable insurance company, and who shall desire to have an inspection made for the purpose of said insurance, may give to said State steam boiler inspector ten days' notice in writing of the time of such contemplated insurance inspection, and it shall thereupon be the duty of said State steam boiler inspector to cause the annual State inspection [by] this act provided, to be made at the same time that said examination for insurance is made; he shall examine into and report to the Governor the cause of any boiler explosion that may occur within the State. He shall keep in his office a complete and accurate record of the names of owners or users of steam boilers inspected, giving a full description of the same, the amount of pressure allowed, the date when last tested, and shall make an annual report to the Governor.



Sec. 3. It shall be the duty of every owner or user of steam boiler, or boilers in use, or to be used, in any part of this State, within thirty days after the passage of this act, and once a year thereafter, at such convenient times, and in such manner and form as may be determined by rules and regulations to be made therefor by the inspector, to report to said inspector the location of such steam boiler, or boilers, and all apparatus and appliances connected therewith; and the strength and security of such boilers shall be tested by hydrostatic pressure, each boiler being tested one-third greater than the ordinary working steam pressure used, and to a pressure demanded by the owner; and the certificate of inspection herein provided shall state the maximum pressure at which such boiler may be worked. If at any time the inspector shall find a boiler which, in his judgment, is unsafe, after inspecting the same, he shall condemn its future use. All boilers to be tested by hydrostatic pressure shall be filled with water by the owners, or users, and they shall furnish the necessary labor required to work and handle the pumps in applying the test, which pumps shall be furnished by the inspector, if necessary. All certificates shall be for one year, unless sooner revoked for cause.

Sec. 4. The owners or users of steam boilers, or engineers in charge of same, shall not allow a greater pressure in any boiler than is stated in the certificate of inspection granted by the inspector. No person or persons shall use or cause to be used for generating steam any boiler that has been condemned as unsafe by the inspector. Before the owner, owners or users of any steam boiler or boilers shall have said boilers placed in position, he or they shall notify the inspector, who shall, within ten days from the date of receiving such notification, examine the same and satisfy himself that the construction, material, bracing and all other parts of such boiler or boilers are such as to assure the safety of the same. Any person or persons violating any of the provisions of this section shall be deemed guilty of a



misdemeanor, and, upon conviction thereof, shall be punished by a fine in any sum not exceeding one thousand (1,000) dollars, or by imprisonment for a period not exceeding two years, or by both such fine and imprisonment.

Sec. 5. There shall be paid for the inspection of each boiler, according to the provisions of this act, the sum of five (5) dollars to be paid by the owner, user or agent of the same occupying the building in which it may be situated, and the inspector shall receipt for the same. In case the owner, user or agent of any such boiler or boilers shall fail to report the location of such boiler or boilers to the inspector, as aforesaid, he shall be liable to pay a penalty of fifty (50) dollars, and in case the owner, user or agent of any such boiler or boilers shall fail to have the same ready for inspection, as aforesaid, he shall be liable to pay the fees and expenses of the inspector incurred in the inspection of any such boiler, and a penalty of ten (10) dollars in addition thereto; fees, expenses and penalty in all such cases may be sued for and recovered in any court of record by and in the name of The People of the State of Colorado, and in any county of the State, and it shall be the duty of the district attorney of the district wherein such county may be situated to prosecute all such suits.

Sec. 6. All moneys received by the inspector under the provisions of this act shall be paid into the State treasury. He shall take a receipt for the same in duplicate form, one of which he shall deposit with the State Auditor, the other to be retained by him in the office of the inspector.

Sec. 7. The Secretary of State shall provide a suitable office for said inspector, properly furnished, and supplied with such tools, apparatus and stationery as may be required.

Sec. 8. The inspector of steam boilers, provided for in this act, shall, for every failure to perform his duties as herein directed, be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a

fine in a sum not less than one hundred (100) dollars nor more than one thousand (1,000) dollars, or be imprisoned for a period of not less than two months nor greater than one year, or by both such fine and imprisonment.

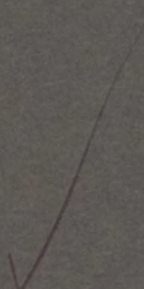
Sec. 9. The provisions of this act shall not apply to cities where city boiler inspectors are appointed under the provisions of the ordinances of said city.

Sec. 10. For the purpose of carrying out the provisions of this act there is appropriated from any funds in the State treasury, not otherwise appropriated, the sum of ten thousand (10,000) dollars, of which sum five thousand (5,000) dollars shall be available for the year 1889, and the sum of five thousand (5,000) dollars for the year 1890, or so much thereof as may be necessary.



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