

(No Model.)

D. TURNER & C. J. GARDNER.
AUTOMATIC SPRINKLER.

No. 542,122.

Patented July 2, 1895.

Fig. 1.

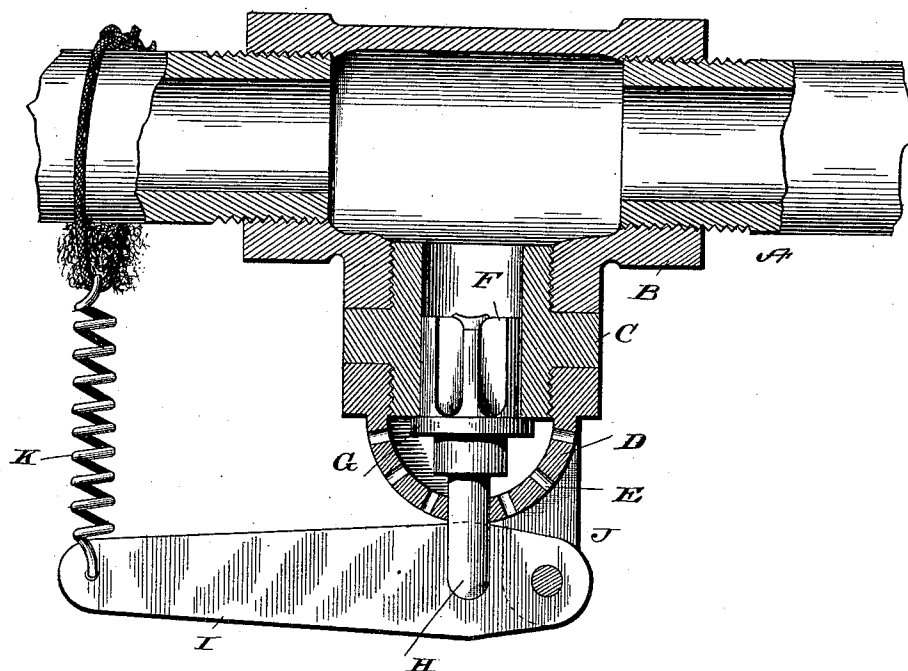
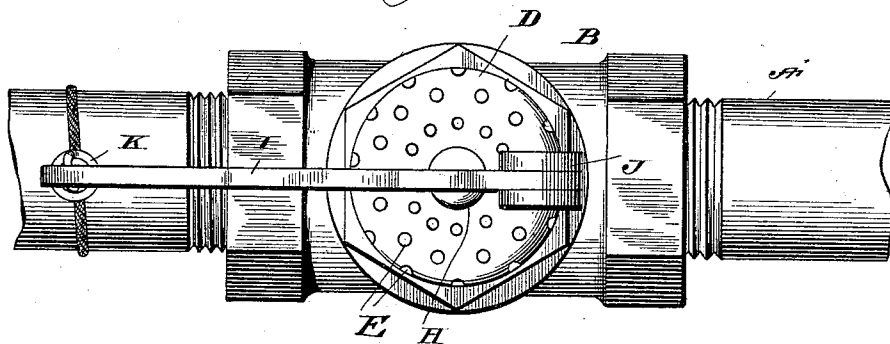


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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AUTOMATIC SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 542,122, dated July 2, 1895.

Application filed June 8, 1894. Serial No. 513,968. (No model.)

To all whom it may concern:

Be it known that we, DANIEL TURNER and CHARLES J. GARDNER, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Sprinklers, of which the following is a specification.

Our invention relates to improvements in that class of devices which are automatically operated to permit a flow of water for the purpose of extinguishing a fire, and its object is to improve the construction and increase the efficiency of such devices.

The invention consists in certain novel features hereinafter described and claimed.

In the annexed drawings, which fully illustrate our invention, Figure 1 is a longitudinal section of a sprinkler embodying our improvements, and Fig. 2 is a bottom plan view of the same.

Referring to the drawings more particularly, A designates a water-pipe, which is connected with any water-supply and may be arranged in any desired position within a room, preferably along the ceiling. At any convenient or desirable point of this pipe we secure an elbow or T joint coupling B, in the under side of which we secure the nipple C. The coupling is used for convenience in fitting the parts together, but is not absolutely necessary, as the nipple might be secured directly in the pipe. To the lower outer end of the nipple we secure a rose D, which is provided with diverging perforations E to scatter the escaping water in the operation of the device. Within the nipple we fit a valve G, which normally closes the lower end thereof and prevents the flow of water therefrom. This valve is constructed in the form of an annular rib or disk which bears against the lower surface of the nipple, and is thereby prevented from being pushed so far upward as to interfere with the prompt flow of water when operated, while it effectually cuts off the flow when raised. The valve is also provided with a guide F within the nipple, and a depending stem H, which passes through the rose, and thereby guides the valve in a true vertical line in its operation. The lower

end of the stem is forked, and rests loosely on and over a lever I, which is fulcrumed upon aboss J, formed on one side of the rose. The free end of this lever is normally held in its raised position by a spring K, which is secured to the water-pipe or some other fixed support by a cotton rope or some other inflammable material.

It will be readily understood that the inflammable fastening might be extended from the fixed support to the lever. Such an arrangement is objectionable, however, as the rope would be liable to be broken or stretched when struck by the brushes or other tools used in house-cleaning.

The operation of the device is thought to be obvious. The valve is normally held in a raised position, to prevent the flow of water. Should a fire break out in the room, the inflammable fastening will be consumed, and the lever, being thereby released, will at once drop and lower the valve so as to open the nipple and permit the water to escape. The water will be scattered by the rose, so as to play on the body of fire and extinguish the same.

The device is extremely simple in its construction and obviously efficient in its operation.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The combination of a water pipe, a nipple secured thereto, an annular valve bearing against the lower end of the nipple and provided with a guide within the nipple and with a depending stem, the lower end of said stem being forked, a depending rose secured to the lower end of the nipple and forming a guide for the valve stem, a lever fulcrumed on one side of the rose and passing through the fork of the valve stem to support the same, a spring secured to the free end of the lever, and an inflammable fastening securing the spring to a fixed support.

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Witnesses:

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