(No Model.)

C. J. HEXAMER.

FIRE EXTINGUISHING DEVICE.

No. 341,143. Patented May 4, 1886.

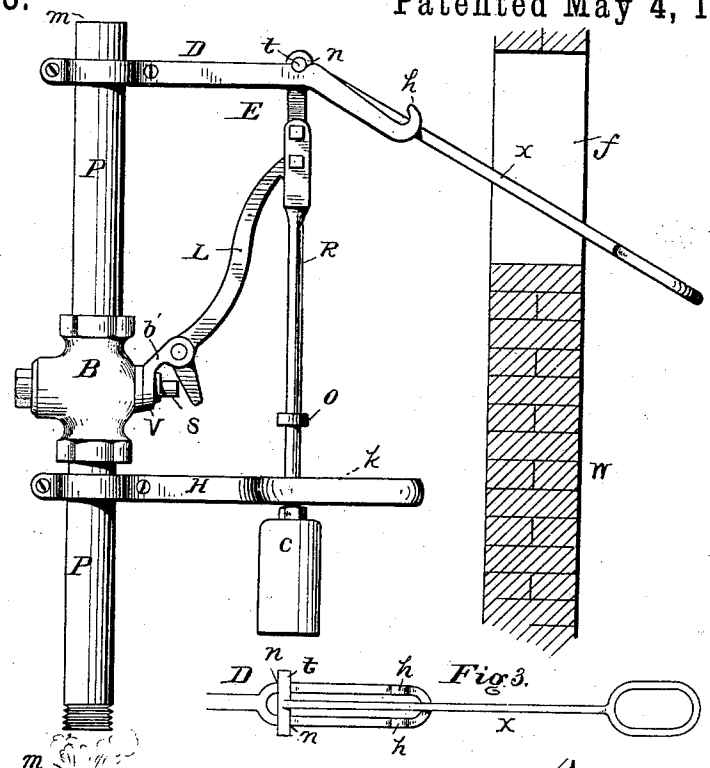


Fig. 1.

Fig. 3.

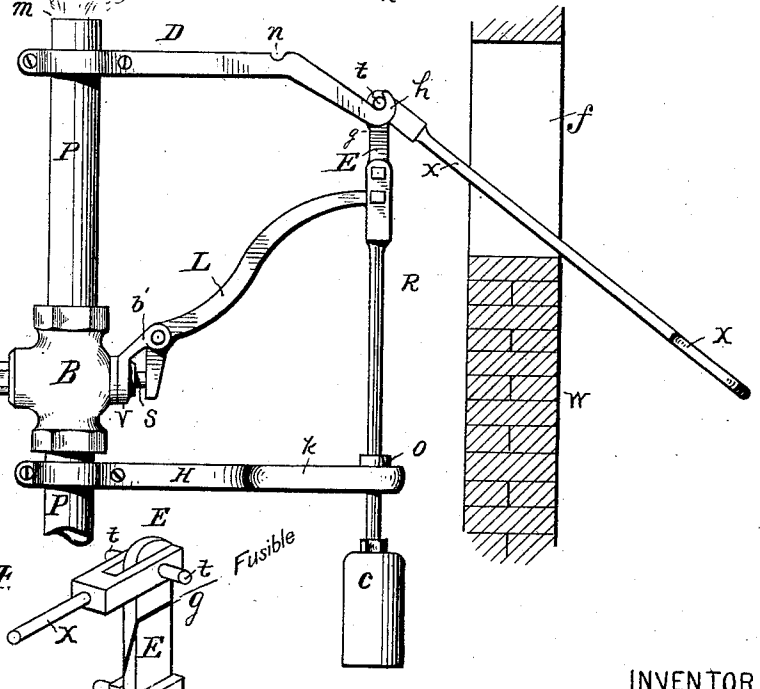


Fig. 2.

Fig. 4.

WITNESSES:

John Nolan

John W. Orr

INVENTOR

Charles John Hexamer,

per Joshua Pusey, Atty.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES JOHN HEXAMER, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-EXTINGUISHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 341,143, dated May 4, 1886.

Application filed August 5, 1885. Serial No. 173,590. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JOHN HEXAMER, a citizen of the United States, residing at the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Extinguishing Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The nature of this invention is a combination of devices with the cock or valve of a water or steam supply pipe for extinguishing fires, for opening said valve at a distance therefrom or from the outside of the room or building, and retaining the same thus open.

The invention will be understood by the following description and claims, reference being had to the annexed drawings, of which—

Figure 1 is a side elevation with the parts in the position when the steam or water supply pipe valve is closed. Fig. 2 is a similar view when the valve is open. Fig. 3 is a plan view of part of the arm or support D and the operating-rod X, hereinafter referred to. Fig. 4 is a detail of fusible-plug connection.

P is a main pipe from a steam-boiler or water-reservoir, as may be desired. Its free end *m* opens out into the apartment of the building to be protected from fire, W being the partition or outside wall of said apartment.

V is a usual spring-controlled valve contained within pipe P, and whose stem *s* projects a short distance horizontally from the valve-box B. To a lug, *b'*, in the present instance attached to a projection of the valve-box, is pivoted an angular lever, L, whose short arm comes directly in front of the end of said valve-stem and close to the same, as shown in Fig. 1. A rod, R, is pivoted to the extremity of said lever. This rod is made heavy, or usually carries a weight, *c*.

D is a projecting arm or support, secured to pipe P or other convenient point, and forked at its outer end, as seen in the plan view, Fig. 3. This end turns down obtusely, and terminates in hooks *h*. It has also notches *n*, for the reception of trunnions *t*, projecting from the upper part of a bar, E, whose lower end is connected to the upper end of the weighted rod R, which, as has been stated, is pivoted to the long arm of lever L.

X is a rod connected to the bar, or rather to the trunnions, as shown, and extends outside the wall or partition W in convenient reach through a narrow slot, *f*, in the latter.

The connecting-rod E is preferably made in two parts with beveled edges joined together by means of a readily-fusible solder, *g*, Fig. 4. The purpose of this construction will appear further on.

Having now described the several parts and their connection, I will now explain their operation.

The normal position of the parts, as shown in Fig. 1, is the valve is closed, its stem projected to its full extent, and the short arm of lever L is retained out of contact with the latter indirectly by means of the arm D, in the notches of which rest the trunnions *t*. Supposing a fire should occur in the room into which the free end of the water or steam supply pipe gives: In order to open the valve, and thereby allow the escape of the steam or water, the watchman or other person on the outside of the room or building pulls upon the operating-rod X thereof, drawing the trunnions out of the notches *n*, and these, supporting the weighted rod R, slide down the incline until stopped by the hooks *h*, as illustrated by Fig. 2. This action, it will readily be seen, causes the short arm of lever L to bear with great force against the valve-stem, and, pushing the same in against the stress of the usual spring, opens the valve and permits the escape of the steam or water. When necessary, the valve may be again closed, without requiring the operator to enter the building or apartment, by pushing up the rod and returning the parts to their original position, Fig. 1. Should, however, there be from any cause failure to operate in the manner just described, the valve will nevertheless be opened by the fusion of the solder *g*, which is adapted to melt at a temperature of, say, 160° Fahrenheit, for it is obvious that if the connection E be broken the weighted rod must drop, and the valve consequently be opened.

In order to obviate too great a strain upon the parts, I usually attach in a suitable position a projecting bar, H, having a slot or loop, *k*, at its outer end, through which depends rod R, and said rod is provided with a projection or collar, *o*, of greater diameter than the middle of slot in arm H, and is so located that the

fall of the weighted rod is arrested at a point to take the strain from the other parts above the said collar.

I may here observe that the downward projection of arm D, including the hook *h*, may be dispensed with; but I prefer to retain the same, in order to prevent too sudden and great a strain upon the parts when the rod X is pulled from the outside. Another advantage in employing this downward incline is, that it affords a ready means whereby, by pushing against the rod X, the parts may be returned to their original position.

I do not wish to be understood as limiting myself to the precise construction shown, or to a spring-controlled valve-cock.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the steam or water supply pipe and its valve, of the lever L, pivoted with relation to said valve as shown and described, the weighted rod pivoted to the long arm of said lever, the arm supporting said rod, together with the operating-rod X, pivoted to said weighted rod, all constructed and adapted to operate substantially as and for the purpose set forth.

2. The combination, with the steam or water supply pipe and its valve, of the lever L, pivoted with relation to said valve as shown and described, the weighted rod pivoted to the lever, the rod-supporting arm D, provided with the inclined part and stop-hooks, and the operating-rod X, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature this 18th day of July, A. D. 1885.

CHARLES JOHN HEXAMER.

Witnesses:
JNO. TAYLOR,
LOUIS M. WAGNER.