E. BOCKER.

Automatic Fire Extinguisher.

No. 230,732. Patented Aug. 3, 1880.

*Fig. 1.*

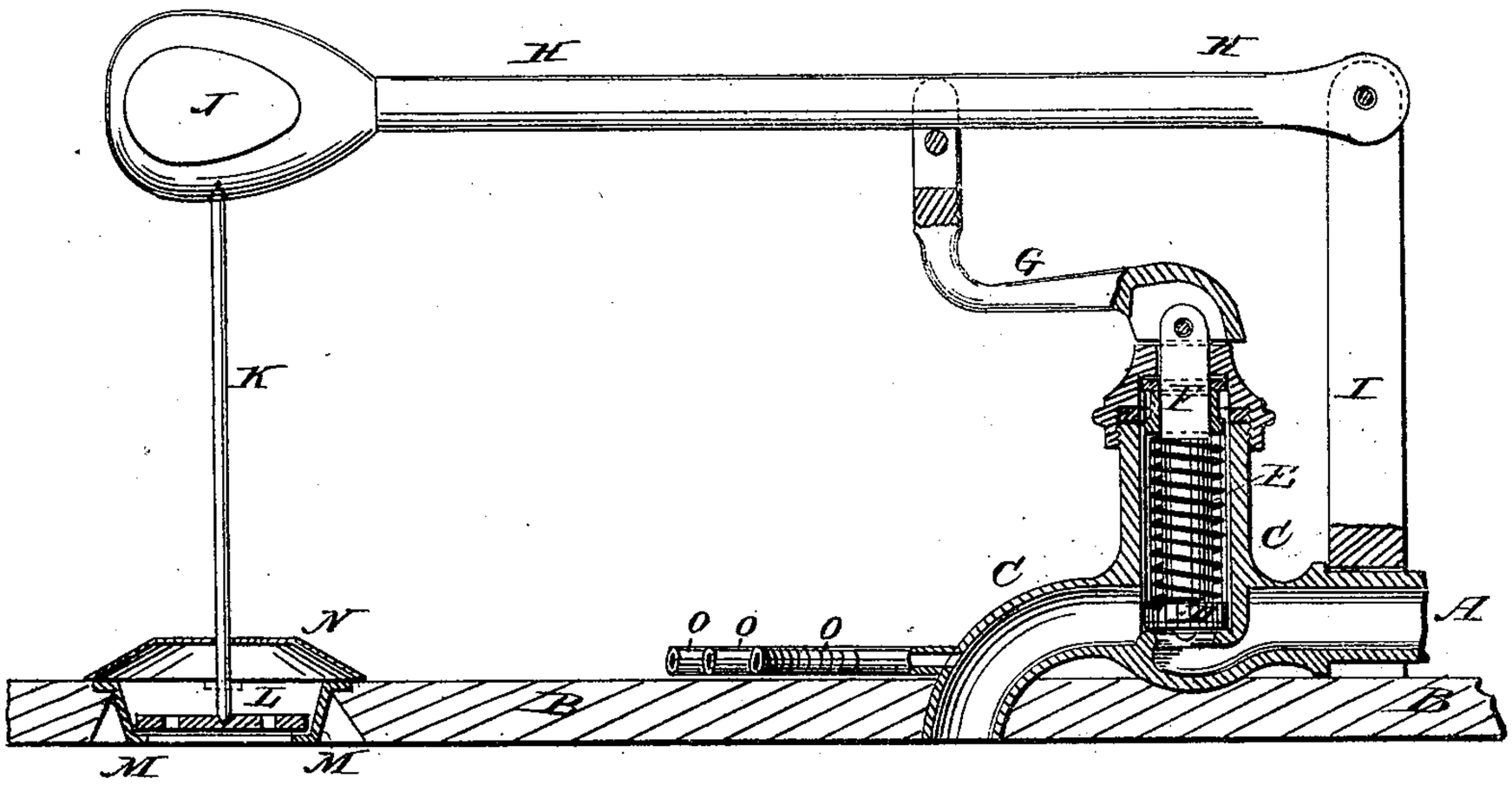
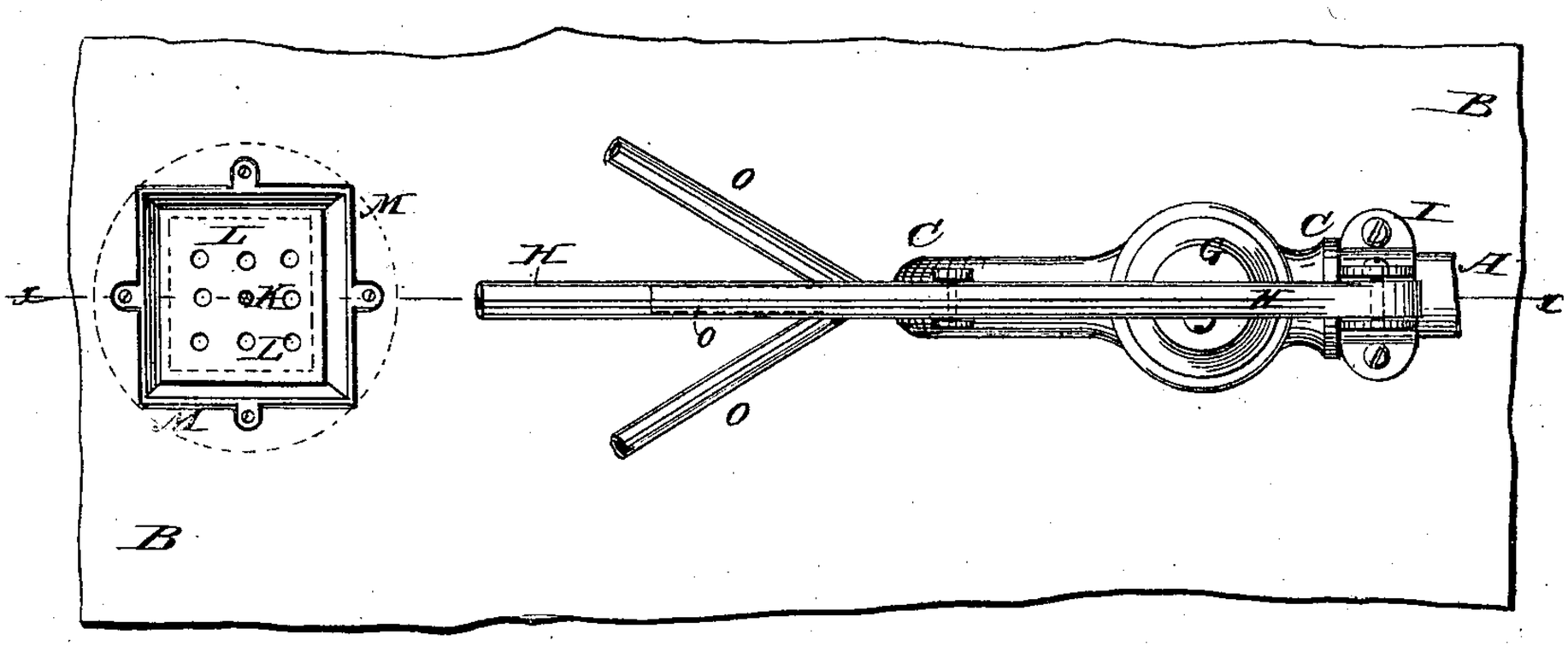



*Fig. 2.*




WITNESSES:

Francis McArdle.

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# UNITED STATES PATENT OFFICE.

EDWARD BOCKER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JOHN A. STEURER, OF SAME PLACE.

## AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 230,732, dated August 3, 1880.

Application filed February 25, 1880.

*To all whom it may concern:*

Be it known that I, EDWARD BOCKER, of the city, county, and State of New York, have invented a new and useful Improvement in Automatic Fire-Extinguishers, of which the following is a specification.

Figure 1 is a sectional elevation of the improvement, taken through the line *x x*, Fig. 2. Fig. 2 is a plan view, partly in section.

The object of this invention is to furnish mechanism to be connected with the faucets of water-pipes, and so constructed that upon the rise of temperature in case of fire the faucets will be opened automatically and discharge water.

The invention consists in the combination, with a lever-handle and a spring-closed faucet, of a weighted lever, a supporting-rod, a celluloid plate, and its supporting-frame; and in the combination, with a supporting-frame provided with a cover, a supporting-rod, and a weighted lever, of a perforated celluloid plate, as hereinafter fully described.

A represents a water-pipe, which may be placed between the ceiling B of a room and the floor above the ceiling, or in any other desired place.

To the pipe A is attached a faucet, C, the valve D of which is held closed by a spring, E, coiled around the valve-stem F.

To the projecting end of the valve-stem F is pivoted a lever-handle, G, which is fulcrumed upon the cap of the faucet C. The outer end of the lever-handle G is bent upward, and is slotted or forked to receive the lever H. The inner end of the lever H is fulcrumed to a support, I, which may be the bracket that secures or supports the pipe A or any other suitable support.

To the free end of the lever H is attached, or upon it is formed, a weight, J, of such a size that when left unsupported it will press the lever H downward with sufficient force to operate the lever-handle G and open the faucet C.

The weight J, or the end part of the lever H, is perforated upon the lower side to receive the upper end of the rod K. The lower end of the rod K rests upon a celluloid plate, L, which is fitted into a frame, M.

The frame M is fitted into a hole cut in the ceiling B, and has an outwardly-projecting flange around its upper edge to rest upon the upper side of the ceiling B, and an inwardly-projecting flange around its lower edge to receive the celluloid plate L.

The celluloid plate L is perforated or made with projecting points, or is corrugated or otherwise roughened, to make it more sensitive to heat.

With this construction, when the temperature rises above a certain fixed point the celluloid plate L takes fire and allows the rod K to drop, so that the weighted lever H J may operate the lever-handle G to open the faucet C and allow the water to escape.

The celluloid plate L is covered with an arched or disk-shaped plate, N, to prevent the flames from the burning celluloid plate L from setting fire to the adjacent parts of the building.

The discharge-nozzle of the faucet C may open into the room below, or may have a number of pipes, O, connected with it and leading in various directions, as circumstances may require.

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

1. In an automatic fire-extinguisher, the combination, with the lever-handle G and the spring-closed faucet C, of the weighted lever H J, the rod K, the celluloid plate L, and its frame M, substantially as herein shown and described, whereby the faucet will be opened by an increase of temperature, as set forth.

2. In an automatic fire-extinguisher, the perforated celluloid plate L, in combination with the receptacle or frame M, provided with the cover N, the rod K, and the weighted lever H J, substantially as and for the purpose set forth.

EDWARD BOCKER.

Witnesses:

AUGUSTUS CHILD,

THOS. C. CAMPBELL.