(No Model.)

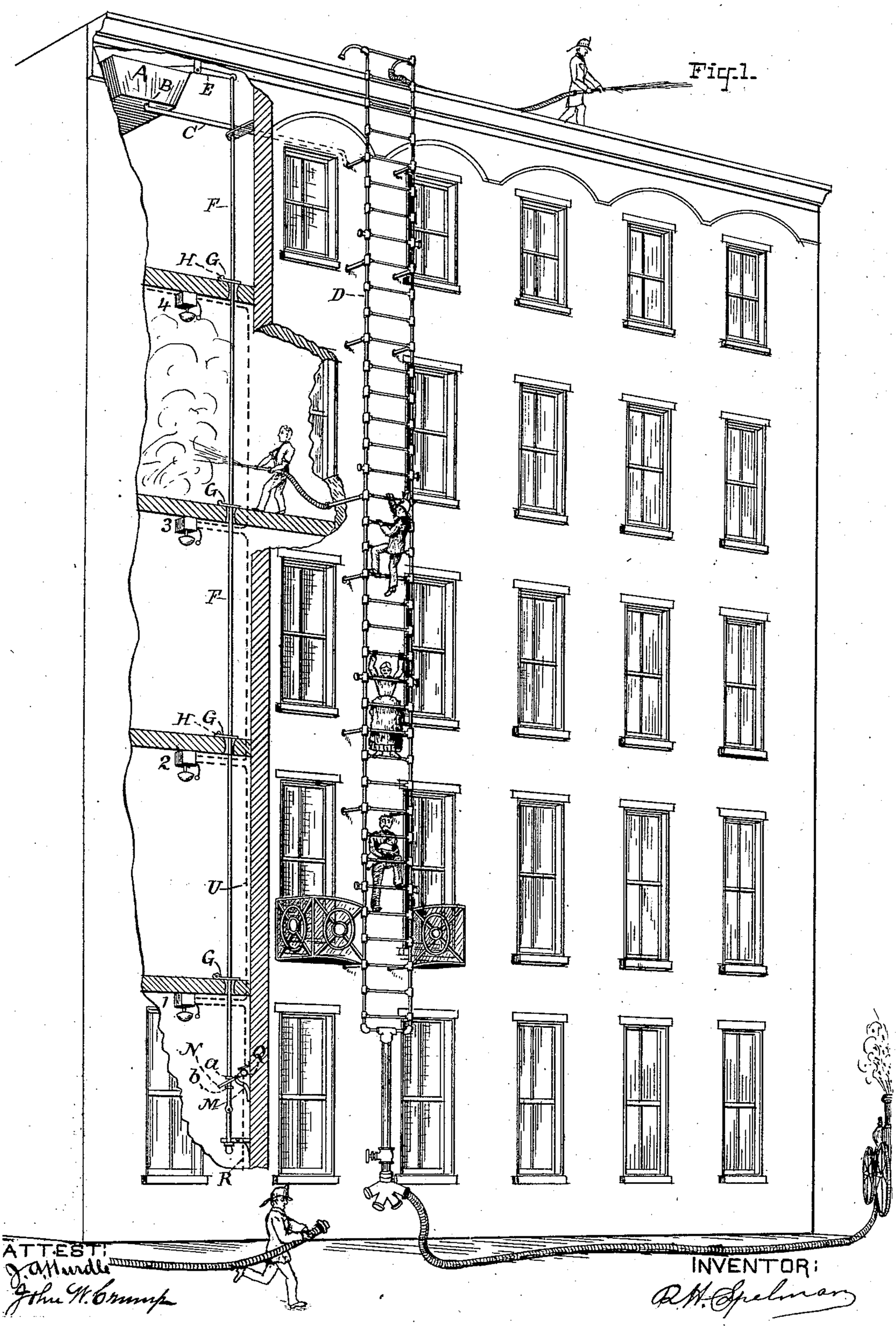
2 Sheets—Sheet 1.

P. H. SPELMAN.

FIRE EXTINGUISHING APPARATUS AND ESCAPE.

No. 289,869. Patented Dec. 11, 1883.

Fig. 1.



ATTEST:
J. A. Hurdle
John W. Crump

INVENTOR:
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(No Model.) 2 Sheets—Sheet 2.

P. H. SPELMAN.

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Fig. 2.

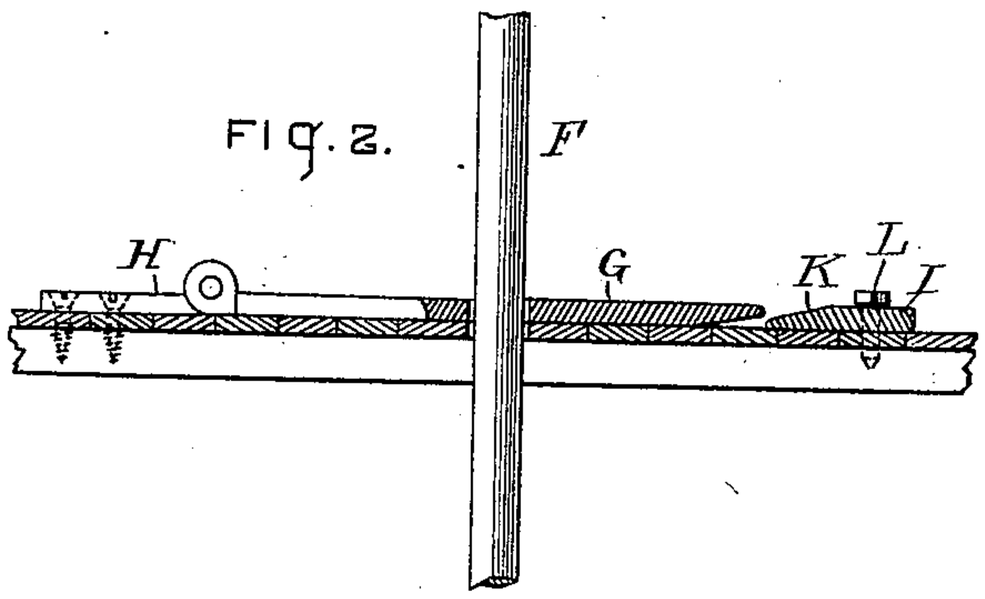


Fig. 3.

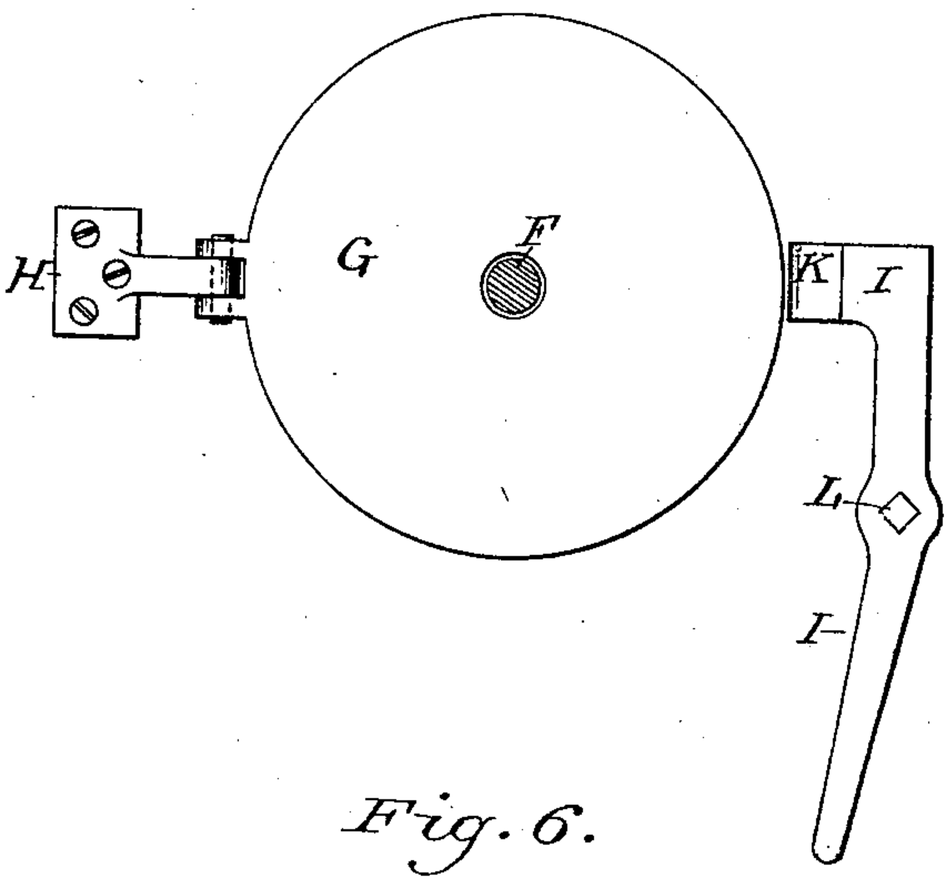


Fig. 6.

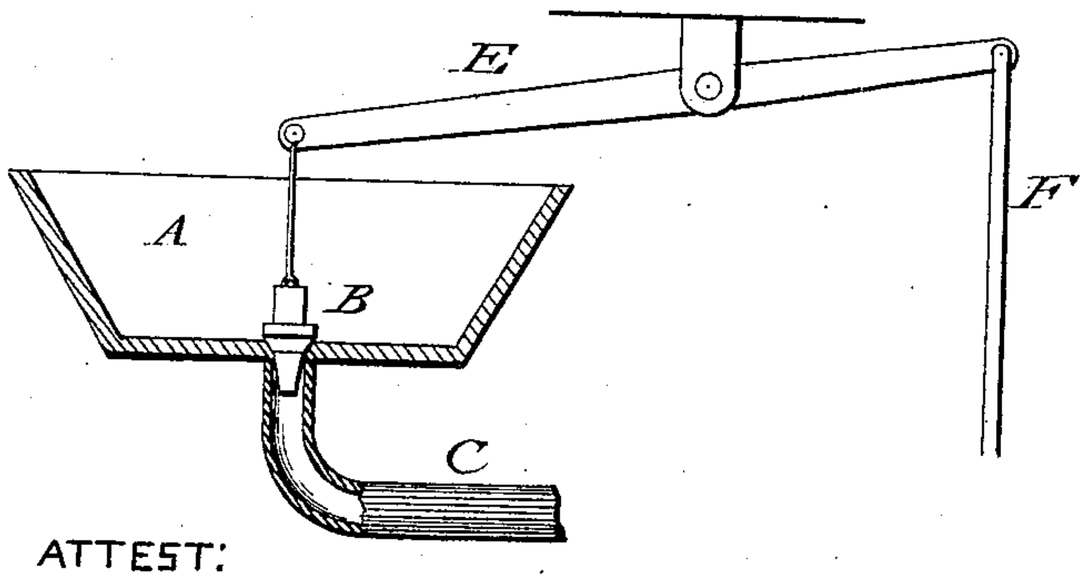


Fig. 4.

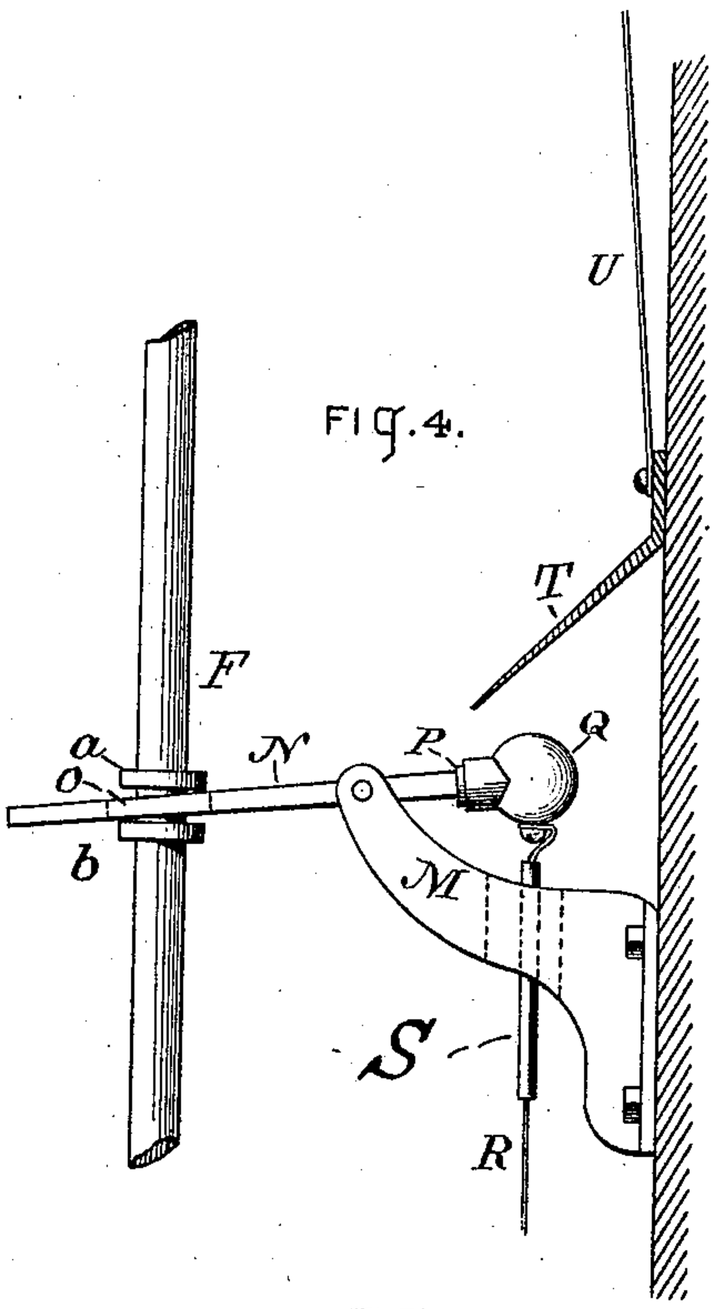
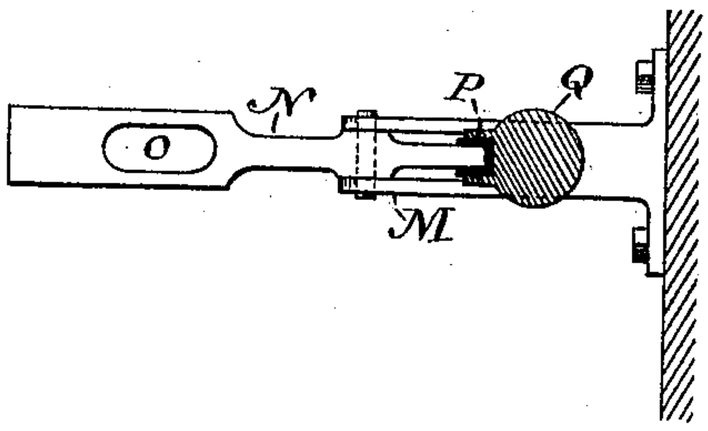


Fig. 5.



ATTEST:

J. A. Hurdle

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INVENTOR:

P. H. Spelman

UNITED STATES PATENT OFFICE.

PATRICK HENRY SPELMAN, OF NEW YORK, N. Y.

FIRE-EXTINGUISHING APPARATUS AND ESCAPE.

SPECIFICATION forming part of Letters Patent No. 289,869, dated December 11, 1883.

Application filed February 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, PATRICK H. SPELMAN, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in a Fire-Extinguishing Apparatus and Escape, of which the following is a specification.

The object of my invention is to furnish a device for conveying water to a permanently-fixed fire-escape ladder composed of pipes connected with each other in the usual way.

Another object of the invention is to furnish suitable means for giving a general fire-alarm throughout the building whenever the device is operated upon, turning the water into the pipes forming the ladder.

I am aware that fire-extinguishers have been constructed so as to be operated by a certain temperature of heat which would ignite a fuse and cause the water to flow, and at the same time operating an electrical circuit-closer which would cause an alarm to be given by a series of electric bells.

I am also aware that stand-pipes have been constructed with staggered bars projecting therefrom and answering for fire-escape.

I am also aware that a trip-lever has heretofore been applied to an automatic fire-extinguisher and operated by an electro-magnet.

The first part of my invention consists of a reservoir placed in any convenient place on the interior or exterior of the upper part of a building, and is provided with a valve from which the conduit-pipe extends to and is connected with the pipes forming the fire-escape ladder by means of couplings or otherwise. The said valve is operated by a lever, one end of which is connected with a rod extending therefrom to the ground floor of the building.

The second part of my invention consists of a clutch-plate and trip-lever. The former is composed of metal provided with an aperture, through which the rod of the reservoir valve-lever passes. Said clutch-plate swings on a hinge made fast to the floor. The trip-lever is also composed of metal with a bevel enlargement at one end. Said lever swings on a fulcrum placed a little beyond the center toward the bevel end.

The third part of my invention consists of a metallic ball with an insulated block passing into the body thereof, both of which are mounted on a lever having its fulcrum supported by a bracket made fast to the wall. Said lever is also provided with an elongated slot, through which the rod of the valve lever passes. The metallic ball has a wire electrically connected therewith, and is provided with an insulated sleeve. The said metallic ball, when raised, comes in contact with a metallic spring having a wire electrically connected therewith and extending therefrom to a series of electric balls made in the usual way.

In the drawings, Figure 1 represents a perspective view of the front of a building, showing the permanently-fixed fire-escape water-ladder, and a part of the building is broken away to show my invention as being connected with the said ladder. Fig. 2 represents a sectional view of the clutch-plate and trip-lever. Fig. 3 represents a plan view of the same. Fig. 4 represents a side elevation of the electrical circuit-closer. Fig. 5 represents a plan and part section of the same. Fig. 6 represents a section of the reservoir, showing the valve connected with the operating-lever.

In the drawings, A is the reservoir. B is the valve. C is the conduit-pipe leading therefrom to the pipes forming the water-ladder D. E is the lever, one end of which is connected with the valve B. The other end is connected with the lever-rod F, which extends therefrom to the ground floor. G is the clutch-plate, which swings on the hinge H. I is the trip-lever, provided with a bevel enlargement, K. L is the fulcrum on which it swings. M is the bracket, made fast to the wall of the building. N is the lever, having its fulcrum connected with the bracket M. O is the elongated slot through which the lever-rod F passes. Said rod is provided with two stop-collars, *a* *b*, which operate the said lever. P is the insulated block, mounted on the end of the lever N. Q is the metallic ball, mounted on the said insulated block P. R is the wire, electrically connected with said ball Q. S is the insulated sleeve covering the wire R. T is the metallic spring having the wire U electrically connected therewith, and extending therefrom to a series of electric bells, 1 2 3 4, of the usual construction, placed in any convenient place within

the building. It will be understood that the wires R and U are connected with a battery in the usual way.

Mode of operation: Whenever an occupant of the building discovers a fire on either of the several stories of the same, it is his duty to pull down on the lever-rod F and with his foot move the trip-lever I so that the bevel enlargement K will press under the clutch-plate G, which slightly raises the same, thereby locking it, thus preventing the rod from moving either up or down. This operation causes the valve B of the reservoir A to open, thus allowing the water to flow through the conduit-pipe C to the pipes forming the water-ladder D at the same time the stop-collar *a* presses down on the lever N, in which movement the metallic ball presses up against the metallic spring T, which closes the circuit through the bells, causing them to keep up a constant ringing, thereby giving the fire-alarm within hearing of each and every occupant.

I do not confine myself to any particular way in which the water may be shut off or on to a water-ladder composed of pipes, as pulleys with ropes and springs may be used instead of lever and rod; neither do I wish to confine myself to any particular way in which an alarm may be given when the rod is in operation, as I am aware that the bell-crank or pneumatic-tube system for giving the alarm of fire may be connected with the rod or rope operating the valve of the reservoirs without departing from the spirit of my invention.

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

1. Broadly, in combination with a water-ladder, a reservoir with a conduit leading therefrom and connected with the pipes forming the rails of the ladder, and a valve with operating-lever, having a rod connected therewith and extending therefrom to the ground floor of a building.

2. In a water-ladder, the combination, substantially as shown and described, of the reservoir A, conduit C, valve B, lever E, and rod F.

3. The combination, substantially as shown and described, of the clutch-plate G and hinge H with the trip-lever I, having beveled enlargement K.

4. In a fire extinguisher and escape, the combination, substantially as shown and described, of the rod F, lever N, bracket M, insulated block P, metallic ball Q, and electric bells 1 2 3.

Signed at New York, in the county of New York and State of New York, this 29th day of January, A. D. 1883.

PATRICK HENRY SPELMAN.

Witnesses:
J. A. HURDLE,
JOHN W. CRUMP.