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Patented Oct. 9, 1900.

A. REID.

MEANS FOR DISCHARGING FIRE EXTINGUISHING LIQUIDS THROUGH GAS  
DISTRIBUTING PIPES.

(No Model.)

(Application filed Dec. 21, 1899.)

Fig. 3.

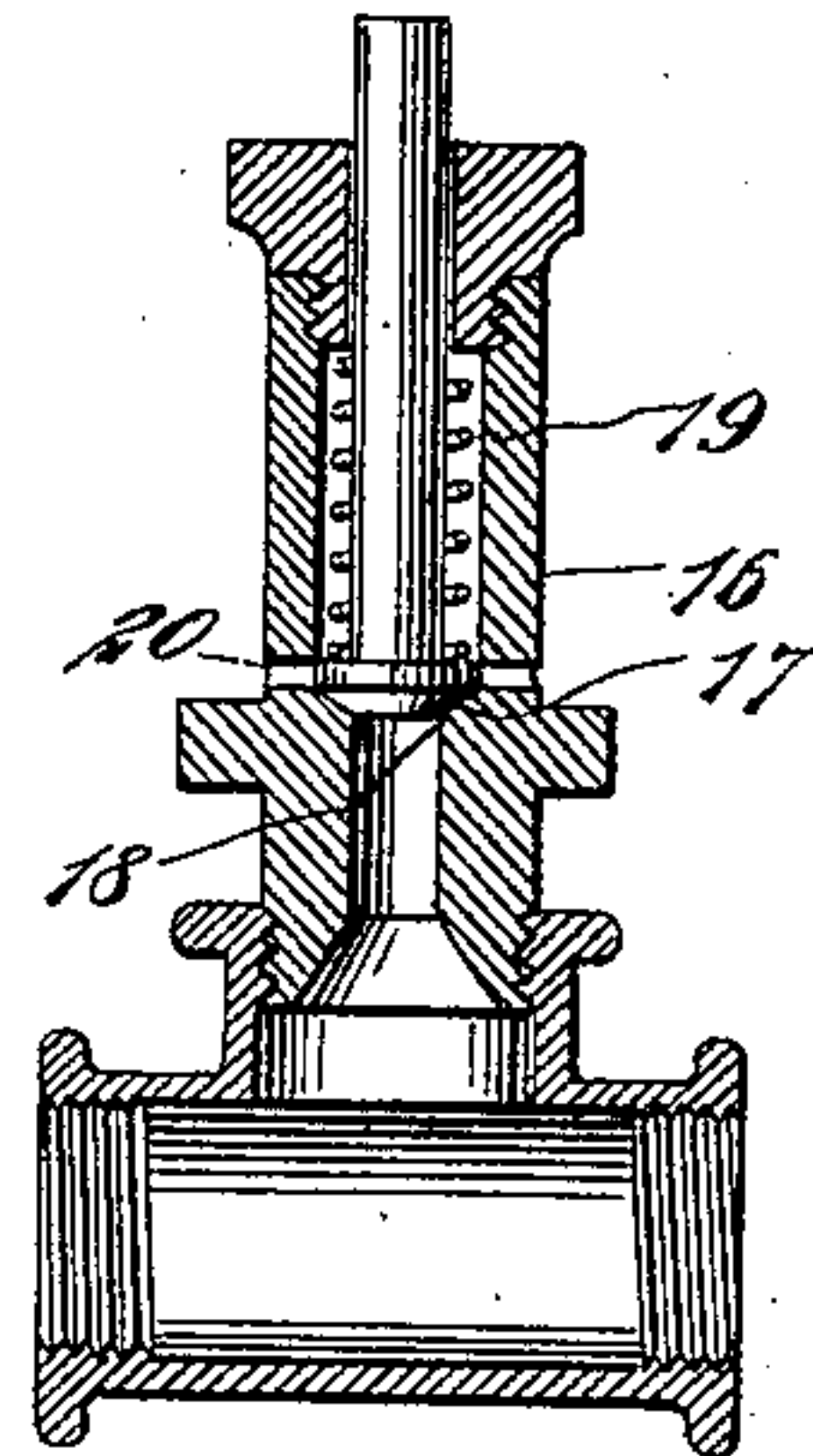


Fig. 1.

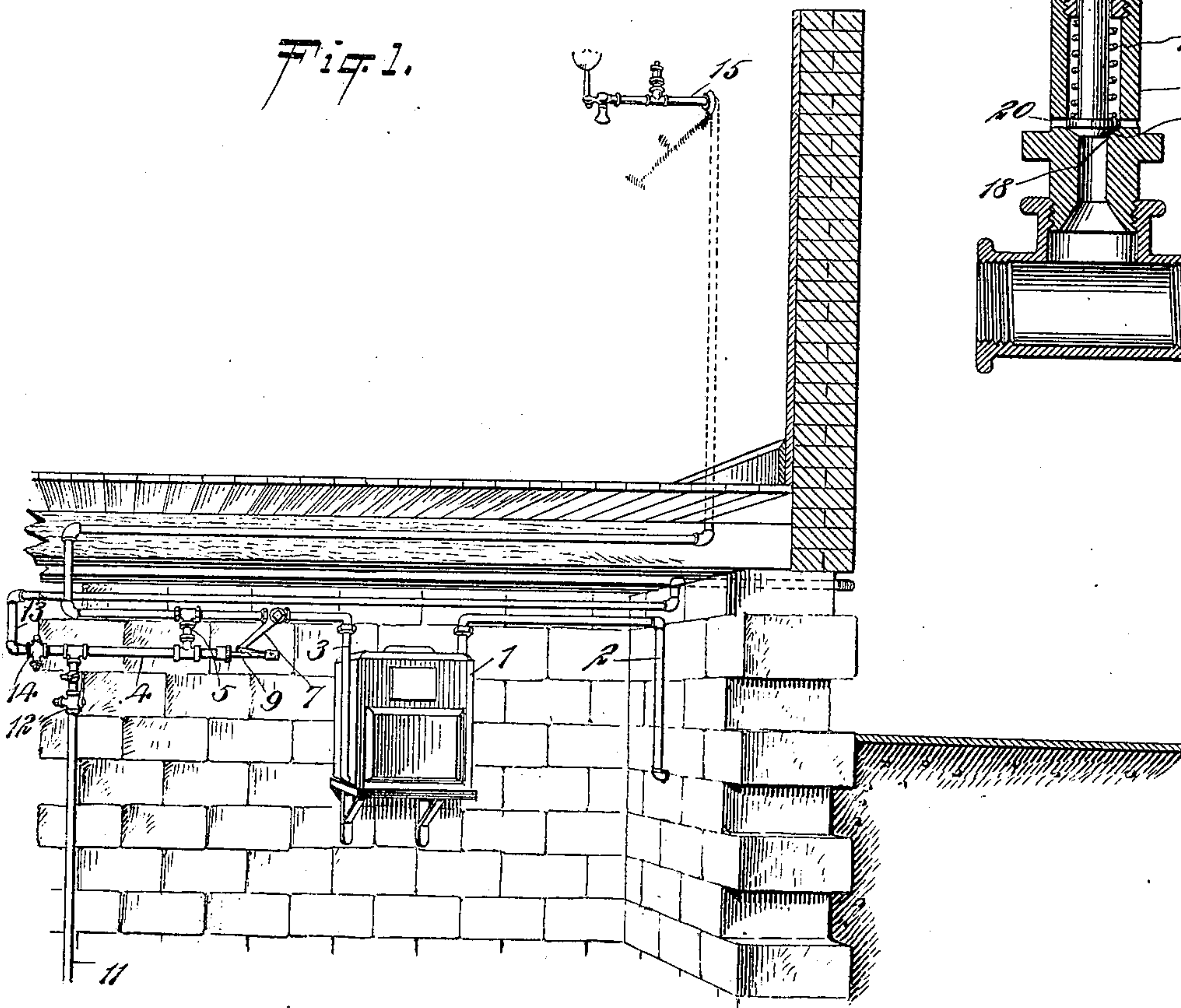
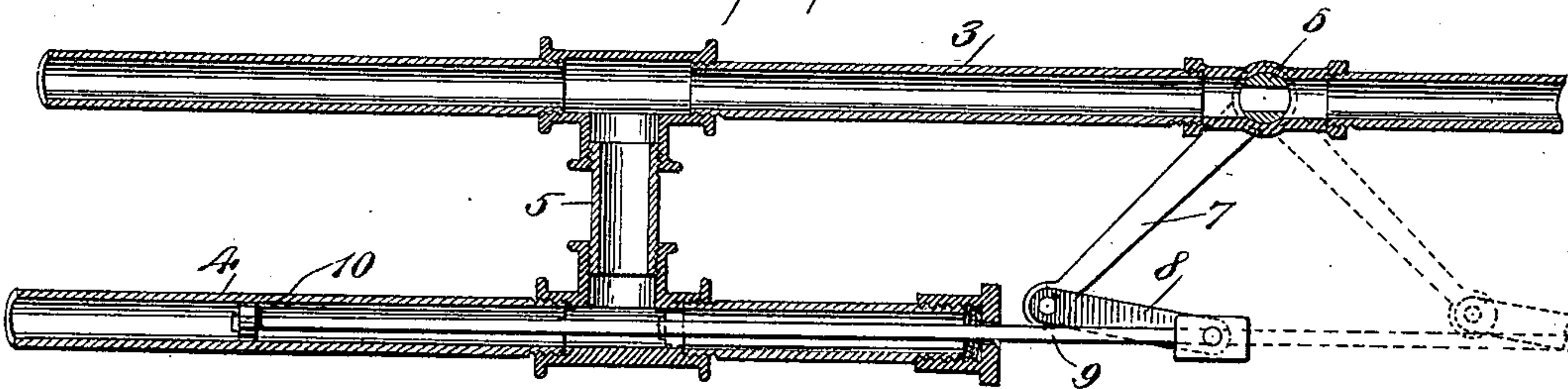


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALEXANDER REID, OF JERSEY CITY, NEW JERSEY.

MEANS FOR DISCHARGING FIRE-EXTINGUISHING LIQUIDS THROUGH GAS-DISTRIBUTING PIPES.

SPECIFICATION forming part of Letters Patent No. 659,548, dated October 9, 1900.

Application filed December 21, 1899. Serial No. 741,164. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER REID, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented new and Improved Means for Discharging Fire-Extinguishing Liquid Through Gas-Distributing-Pipes, of which the following is a full, clear, and exact description.

This invention relates to a means for directing water or other fire-extinguishing liquid through gas-pipes in a building; and the object is to provide a simple means whereby should a fire occur upon turning on a water-pressure the gas-supply will be automatically cut off, leaving the gas-distributing pipes free to receive and discharge the extinguishing liquid into a room or rooms of a building, thus providing a fire-extinguishing system at a comparatively small expense.

I will describe a means for discharging fire-extinguishing liquid through gas-distributing pipes embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a portion of a building, showing my invention arranged therein. Fig. 2 is a longitudinal section, showing an automatic gas and water supply controlling device; and Fig. 3 is a vertical section of a sprinkling device employed.

Referring to the drawings, 1 designates a gas-meter into which the gas-supply pipe 2 leads and from which the gas-distributing pipe 3 leads. A water-supply-pipe section 4 has a connection 5 with the gas-pipe 3, and between this connection 5 and the meter a valve 6 (see Fig. 2) is arranged in the gas-pipe. An arm 7 extends from the stem of the valve 6 and has a link connection 8 with a piston-rod 9, having a piston 10, movable in the pipe-section 4. A pipe 11, leading from a water-main, connects with the pipe-section 4, and in this pipe 11 is a valve 12. Also connected with said pipe-section 4 is a pipe 13, leading outward through a wall of the building and to which connection may be made from a hydrant or with a fire-distinguishing

apparatus either in the form of a fire-engine or a chemical engine, and in this pipe 13 is a valve 14.

Attached in any suitable manner to each burner-pipe 15 or to any desired number thereof is a sprinkling device, consisting of a tube 16, in which is a valve 17, pressed against its seat 18 by means of a spring 19. The tube is provided with perforations 20 through its wall above the valve-seat. The spring 19 should be of sufficient strength or tension to hold the valve 17 in its seat against gas-pressure flowing through the gas-pipe to the burners, thus preventing leakage through the perforations 20.

In operation should a fire occur by opening the valve 12, the valve 14 being closed, the water-pressure against the piston 10 will move said piston in the pipe-section 4, which will rotate the valve 6 to its closed position, thus cutting off the supply of gas from the meter. When the valve 6 is thus closed, the piston 10 will be at the opposite side of the connection 5, (see dotted lines in Fig. 2,) so that water may pass through said connection 5 and flow through the gas-pipe, and the pressure against the valve 17 will force said valve upward, permitting the water to pass out through the perforations 20. If the extinguishing liquid is to be supplied through the pipe 13, the valve 14 must be opened while the valve 12 is closed, and the same operation as above explained will take place.

It is obvious that my invention may be readily applied to gas-distributing pipes already arranged in a house or building.

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

1. The combination with a gas-pipe, of a liquid-supply pipe having connection with the gas-pipe, a valve in the gas-pipe, a piston in the liquid-supply pipe adapted to be operated by liquid-pressure, an arm extended from the stem of the valve, and a connection between said arm and the piston-rod, substantially as specified.

2. The combination with a distributing-pipe arranged in a building, of a liquid-supply pipe having connection with the distributing-pipe, a valve in the distributing-pipe, a piston in the liquid-supply pipe adapted to

be operated by liquid-pressure, and a connection between said piston and the valve, the operation of said piston in one direction serving to close the valve and to open communication between the liquid-supply pipe and the distributing-pipe, substantially as specified.

3. The combination with a gas-supply pipe arranged in a building, of a water-supply pipe communicating with the gas-pipe, a piston operated by pressure in the water-supply pipe for shutting off the gas-supply, a pipe

leading from the water-supply under pressure and connecting with the water-supply pipe, and another pipe leading from the water-supply pipe and adapted for connection with an engine or the like, substantially as specified. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALEXANDER REID.

Witnesses:

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