May 27, 1930. A. VALENTE 1,760,385

FIRE EXTINGUISHING SYSTEM

Filed Aug. 3, 1925 2 Sheets-Sheet 1

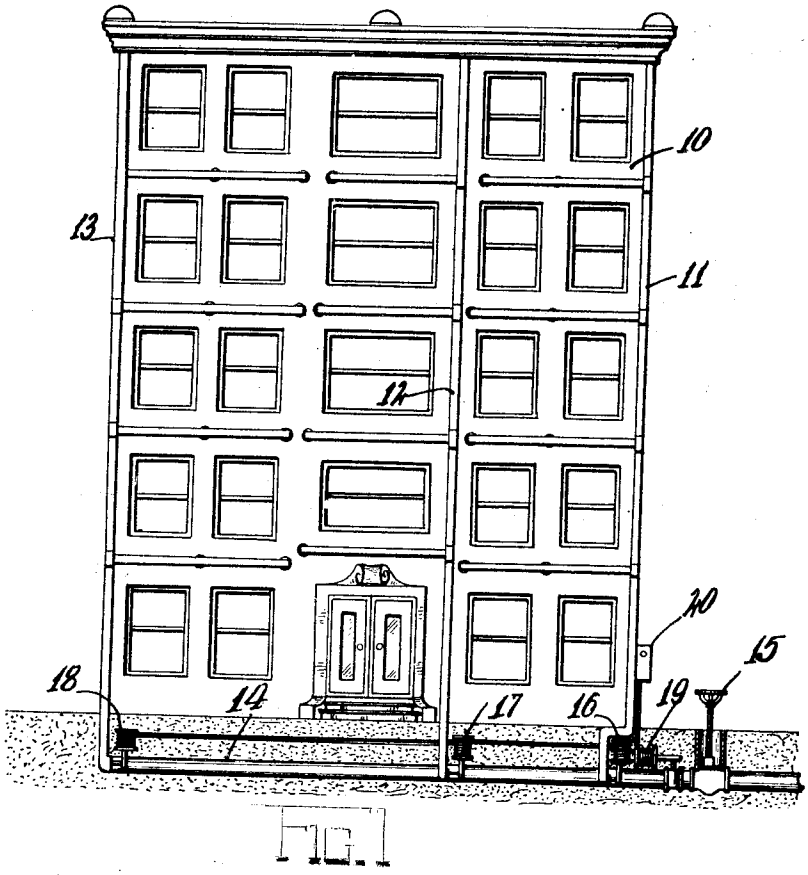

FIG. 1

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Filed Aug. 3, 1925 2 Sheets-Sheet 2

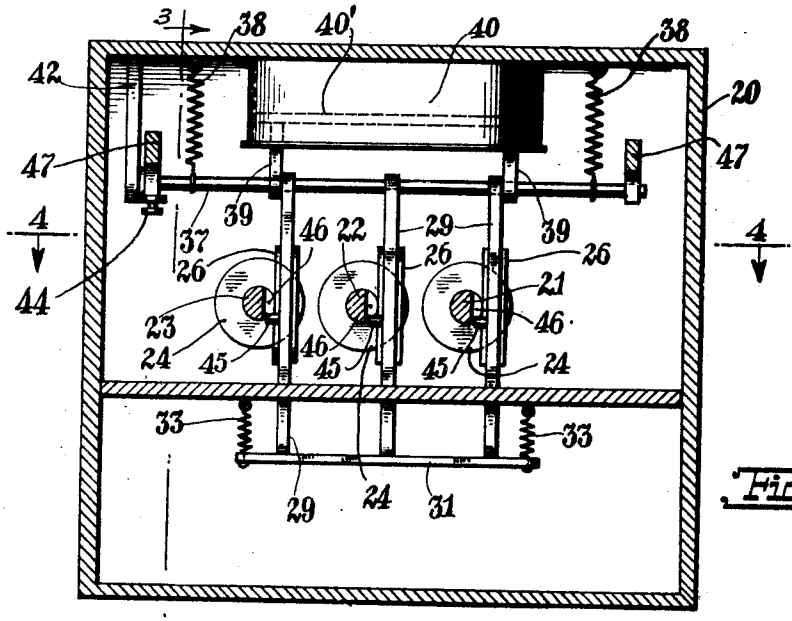

Fig. 2.

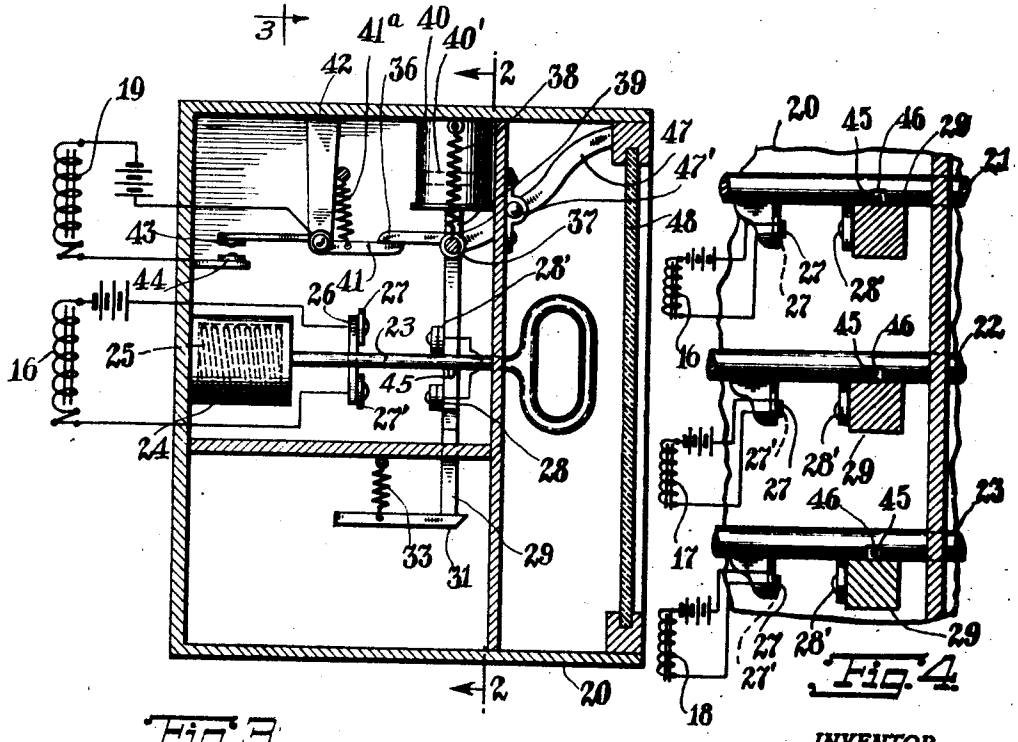

Fig. 3.

Fig. 4.

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Patented May 27, 1930 1,760,385

UNITED STATES PATENT OFFICE

ANTONIO VALENTE, OF WEST ALBANY, NEW YORK

FIRE-EXTINGUISHING SYSTEM

Application filed August 3, 1925. Serial No. 47,784.

This invention relates to improvements in fire-extinguishing systems, and it is the principal object of the invention to provide means adapted to be operated from the outside of a house to aid in extinguishing a conflagration in any part of the house.

A still further object of the invention is the provision of a plurality of operating levers encased and provided for on the outside of a house.

These and other objects and advantages of my invention will become more fully known as the description thereof proceeds, and will then be specifically defined in the appended claims.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a front view of a building equipped with a fire-extinguishing system, including my invention.

Fig. 2 is a section through a casing containing the circuit controlling means, the section being taken on line 2—2 of Figure 3.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is a fragmentary detail view on an enlarged scale in section on line 4—4 of Figure 2.

A building 10 of any construction and material has sprinkler systems 11 and 12 and 13 installed in the two side wings and the central part of the building, adapted to be fed with water from a water main 14 controlled by the customary main valve 15.

The three systems 11, 12 and 13 are controlled by means of auxiliary valves adapted to be operated by means of solenoids 16, 17 and 18 and a solenoid 19 is adapted and provided for controlling the main valve.

The valve controlling and solenoid energizing means are contained within a casing 20 secured to the outer wall of the building.

In this casing a plurality of bars, for instance, three, as here shown, 21, 22, and 23, are guided at their rear ends in boxes 24 containing springs 25. Intermediate their ends, the bar shanks carry control bars 26, each equipped with two contacts, 27 and 27′, adapted to close a circuit over contacts 28 and 28′, to control the solenoids 16, 17 and 18. The contacts 28 and 28′ are secured on bars 29, connected at their lower ends to bars 31 normally urged upwards by springs 33.

The opposite ends of the bars 29 are connected to a rod 37 having a projecting finger 36 and the rod is suspended from the top of the casing 20 by means of springs 38, while rods 39 engaged with bar 37 enter a vessel 40 filled with air. A piston 40′ is disposed in the air container 40 having a substantially light fitting relation with the sides of said container for providing a dash pot action to slow down the movement of the bars 39. The end of finger 36 engages bell crank lever 41 suspended from the top of the box by means of bracket 42.

This lever carries contact 43 adapted to engage contact 44 on a bracket attached to the casing wall.

The bars 29 are movable in vertical direction and have teeth 45 thereon adapted to engage notches 46 in bars 21, 22 and 23 when levers 47 connected with bar 37 and pivoted as at 47′ abut the closed door 48. The teeth of the bars 29 normally recline in the slots 46 in the bars 21, 22, and 23 and prevent these bars from being pulled outwardly until the teeth are separated from their respective slots by a vertical movement of the bars 29.

The device operates as follows:

If a conflagration is discovered, the box 20 is opened by opening door 48 which allows levers 47 to move downwards as springs 38 move the bar 37 upwards. Spring 41ª moves lever 41 so that contacts 43 and 44 engage to close a circuit in which the solenoid 19 controlling the main valve, is located.

If the fire is discovered in the middle part of the building, bar 22 is pulled and if in the side aisles, bars 21 and 23 respectively are pulled in order to energize the solenoids controlling the valves for the supply of water to the sprinkler systems 16 and 18.

I have in this manner created an effective fire extinguishing system saving the lives and health of the firemen who will not be compelled to enter a burning building in order to extinguish a conflagration. It will be clear that the drawing and specification

disclose one of the many forms of practical execution of my invention, allowing changes within the scope of the claim without departing from the principle of the invention.

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

A switch mechanism for fire extinguishing systems, comprising circuit closing means for closing a primary circuit, a plurality of bars for closing a plurality of secondary circuits, springs for maintaining the bars in a normally off position, operating means for selectively actuating said bars to close any desired one of said individual secondary circuits after said primary circuit has been closed, and means for preventing closing of said secondary circuits before the closure of said primary circuit.

In testimony whereof I have affixed my signature.

ANTONIO VALENTE.