R. C. STRAIGHT.

FIRE PROTECTOR.

APPLICATION FILED SEPT. 14, 1909.

991,909.

Patented May 9, 1911.

Fig. 1.

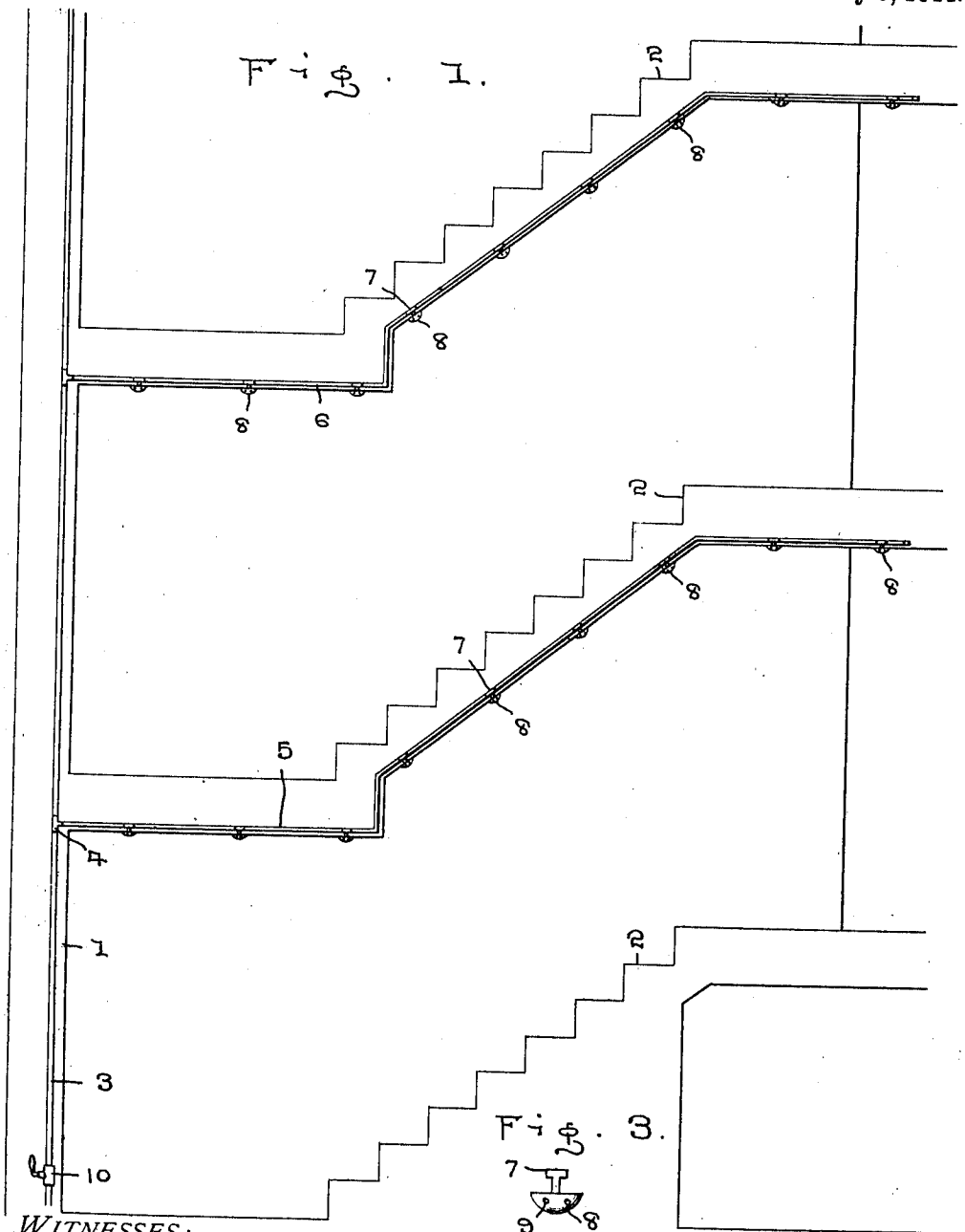
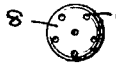


Fig. 3.

Fig. 2.



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ROBERT C. STRAIGHT, OF DEARBORN, MICHIGAN.

FIRE-PROTECTOR.

991,909. Specification of Letters Patent. Patented May 9, 1911.

Application filed September 14, 1909. Serial No. 517,709.

To all whom it may concern:

Be it known that I, ROBERT C. STRAIGHT, a citizen of the United States, residing at Dearborn, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Fire-Protectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in automatic fire protectors and more particularly to that class adapted to be used in public buildings such as school houses and the like and my object is to provide for discharging water onto the stairways of a building.

A further object is to provide suitable connections for conveying water through the parts of the building.

A still further object is to provide spraying devices for discharging the water in jets and a still further object is to provide a form of spraying jet which will serve as an anchor for the plaster or wall covering of the building.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claim.

In the accompanying drawings forming part of this application, Figure 1 is a diagrammatic view showing my improved protector applied to use. Fig. 2 is an end elevation of one of the spraying devices, and, Fig. 3 is a side elevation thereof.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the walls of a building and 2 the stairways therefor and in order to protect the stairways from fire, and at the same time discharge water upon the persons descending upon the stairways, a main pipe 3 is extended upwardly in the wall 1, said pipe having tees 4 at certain intervals to which are attached auxiliary pipes 5.

The auxiliary pipes 5 are preferably extended above each stairway and may be embedded in the ceiling 6, said auxiliary pipes having a plurality of tees and nipples 7 thereon, to which are attached nozzles 8, which nozzles are preferably semi-globular and hollow and provided with a plurality of openings 9, through which the water is discharged onto the stairway and by painting the nozzles the same color as the color of the ceiling against which they rest, the presence of said nozzles will not be conspicuous.

The first consequence of flooding a building with water is usually to cause the plaster on the walls and more especially on the ceilings to crack and drop off. The danger to occupants from this source is especially great where a form of stationary fire system which discharges large quantities of water on the floors of the building is used. This disadvantage has been overcome in the present instance by forming the discharge nozzles as hemispheres, the flat back surfaces of which press against the plaster of the ceiling and anchor it in place. It will readily be seen that without greatly increasing its cost, I have thus produced a stationary fire system which besides being not unsightly, is a safeguard against loss of property and injury through the destroying effect of the water on the plastered walls.

The main pipe 3 is provided with a valve 10, which is preferably placed against the ground floor and in position to be grasped and operated to permit the water to flow through the main and auxiliary pipes so that in case of fire, the opening of the valve 10 will permit the water to flow through the main and auxiliary pipes and be discharged through the nozzles 8 and in view of the plurality of openings in the nozzles, the water will be sprayed in jets over the entire stairway and over persons passing on the stairways.

It will be readily understood that this device can be used in any parts of the building, such as rooms, hallways, etc., and will serve to extinguish the fire while it is in its incipiency. It will likewise be seen that the device can be installed after the building is erected, but as it is preferred to conceal the same from view, it should be installed when the building is being erected so that the plastering can be placed over the pipe and said pipes thus removed from view and the additional securing effect of the nozzles utilized.

The main pipe 3 may be extended to any suitable source of water supply, such as water mains, hydrants, tanks, or may be placed in position to be connected direct to fire engines or other pumping devices, but as said water supply may be obtained in many ways, it is not deemed necessary to show the same in the drawing as the construction and operation will be readily apparent.

What I claim is:

In a stationary fire-extinguishing system, the combination with a building, including vertical walls and plastered partitions; of a main fluid supply pipe extending vertically through said walls, a valve to control the entrance of fluid into said pipe, distributing pipes connected to said main pipe and running through said partitions and secured thereto, nozzle stems connected to said distributing pipes and extending outward through the plastering on said partitions, and hemispherical spraying nozzles secured to said stems and having their flat surfaces in contact with said plastering, all substantially as and for the purpose described.

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

ROBERT C. STRAIGHT.

Witnesses:
LOUIS W. HOWE,
JENNIE E. HOWE.