G. J. ORR.

Automatic Water Distributer.

No. 163,101. Patented May 11, 1875.

Fig. 1.

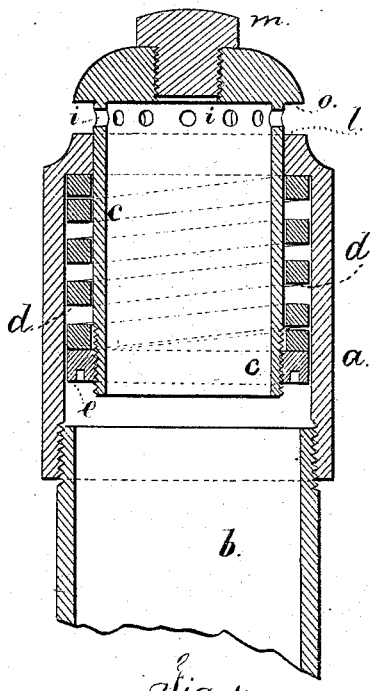


Fig. 2.

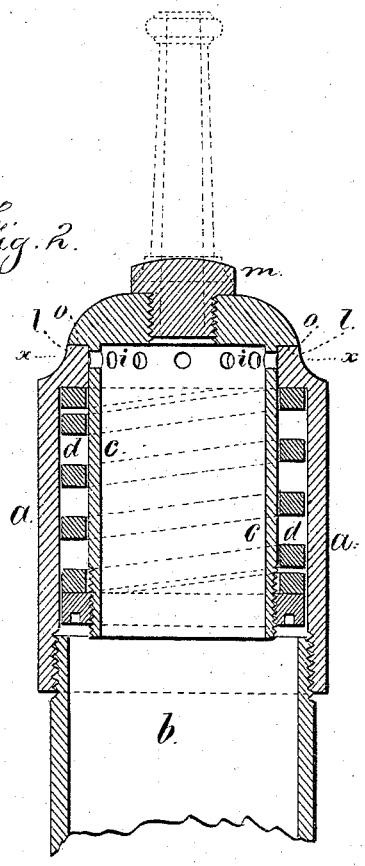
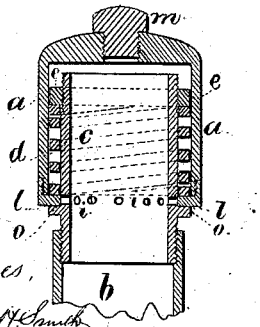


Fig. 4.

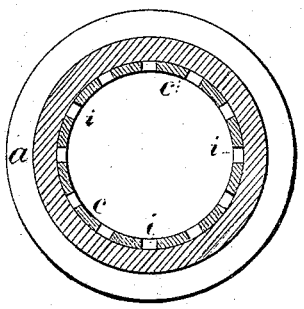


Witnesses,

Chas. H. Smith

Harold Smith

Fig. 3.



Inventor

Gilbert J. Orr

per Lemuel W. Serrell

Atty

UNITED STATES PATENT OFFICE.

GILBERT J. ORR, OF NEW YORK, N. Y.

IMPROVEMENT IN AUTOMATIC WATER-DISTRIBUTERS.

Specification forming part of Letters Patent No. **163,101**, dated May 11, 1875; application filed April 10, 1875.

To all whom it may concern:

Be it known that I, GILBERT J. ORR, of the city and State of New York, have invented an Improvement in Automatic Water-Distributers, of which the following is a specification:

Stand-pipes have been applied to buildings, and they have extended above such buildings and received a distributer to scatter water upon the building, and a valve is provided, by which the supply is admitted to such distributer. There is, however, a risk that the rod leading to such valve, or the valve itself, may become obstructed, and the apparatus inoperative at the time it is most needed.

It is important that these stand-pipes and distributers remain closed, except when considerable pressure is exerted in the pipe; otherwise the water would not be confined sufficiently to discharge with the required force from hoze-nozzles connected with such stand-pipes.

My invention is made to provide for automatically opening the distributer when the pressure is in excess of a predetermined standard, and for closing the pipe at all other times, so as to prevent the stand-pipe and distributer becoming injured by rain, snow, ice, dust, or other material to which it may be exposed.

In the drawing, Figure 1 is a vertical section of said distributer as opened by the pressure and discharging water. Fig. 2 is a similar view as closed, and Fig. 3 is a section at the line *x x*.

The cylinder *a* is fastened to the stand-pipe or hose *b*, and its end is contracted to receive the sliding cylinder *c*, that has a screw-collar, *e*, around its inner end, between which and the end of the cylinder *a* there is a spring, *d*, that is set up with more or less force by the screw-collar *e*, so that the cylinder *c* will be moved endwise against the resisting spring *d* when the pressure of water is more powerful than the said spring; and when this movement takes place, the holes *i* pass beyond the end of the cylinder *a*, and the water is discharged laterally.

The orifices or holes *i* may be round or elongated, and more or less numerous, and positioned in the cylinder to cause the water to reach any portions of the building specially exposed to the ravages of fire, and, if desired, a nozzle may be applied at the upper end of the cylinder *c*, as shown by dotted lines in Fig. 2, and this may close against a stationary valve when the spring *d* returns the cylinder to a normal position.

The lip or flange *o* above the orifices *i* forms a cap or valve, and, when resting upon the seat *l* at the end of the cylinder *a*, closes the stand-pipe, and effectually prevents rain, snow, or other substances passing into the same from outside.

When these cylinders *a c* are applied upon a hose the orifices *i* may be opened by the increase of pressure, and a lateral distribution be effected, as aforesaid. This will be available in cases where a hole is made in a roof or floor, and the hose or pipe inserted therein to scatter water upon a fire below, and in cases where the nozzle and distributer are held by a person within the burning building, or in close proximity to the flames, the water that will issue from the orifices *i* will protect such person from being burned.

I provide a hole in the end of the cylinder *c*, into which one end of the nozzle is screwed, and when the nozzle is removed therefrom the hole is closed by the screw-plug *m*.

In Fig. 4 I have shown this distributer inverted, and the cylinder *c* attached to the stand-pipe *b*, and the cylinder *a* forming a cover, and sliding upon *c*, the operations of the parts being identical with that before described.

The spring might be displaced by the use of a weight properly proportioned to the area and pressure.

I claim as my invention—

1. The cylinder *a*, containing the cylinder *c*, that is provided with lateral discharge-orifices *i*, in combination with the spring *d* and adjusting screw-ring *e*, substantially as and for the purposes set forth.

2. The automatic water-distributer, containing a sliding cylinder or valve and lateral discharge-orifices, combined with a spring or weight that keeps the parts closed until the maximum pressure has been exceeded, substantially as specified.

Signed by me this 9th day of April, 1875.

GILBERT J. ORR.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.