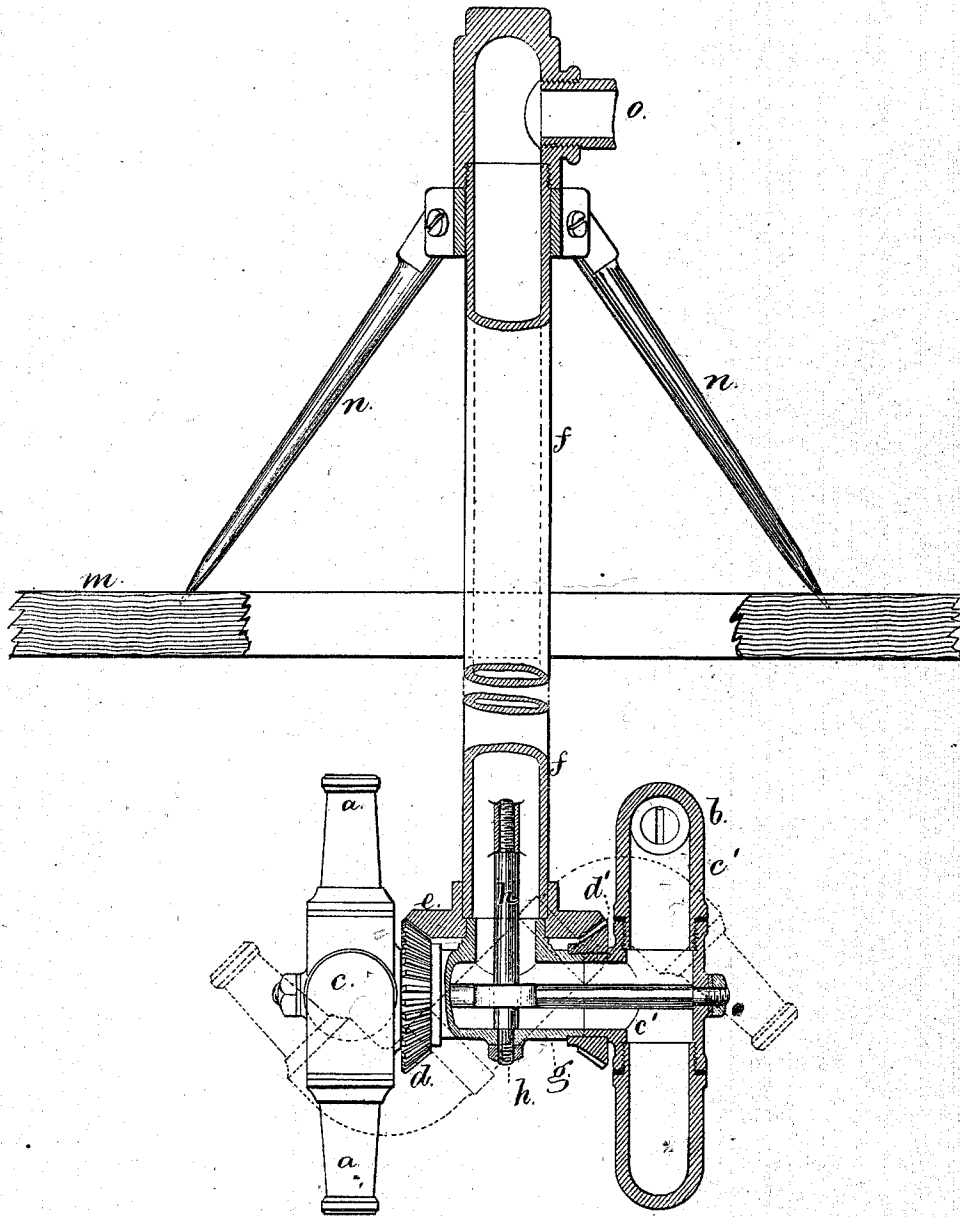


G. J. ORR.

Distributors for Extinguishing Fires.

No. 144,696.

Patented Nov. 18, 1873.



Witnesses,

Chas. H. Smith
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Inventor

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att'y

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN DISTRIBUTERS FOR EXTINGUISHING FIRES.

Specification forming part of Letters Patent No. **144,696**, dated November 18, 1873; application filed November 1, 1873.

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 Improved Distributer for Extinguishing Fires, of which the following is a specification:

In extinguishing fires a large amount of water is wasted because it is not directed upon the burning material, and, in many instances, the density of the smoke and the peculiar position are such that the efforts of firemen appear to be almost useless. This is particularly the case when fires occur in cellars, and water from the hose is discharged through an opening in the floor above, or when the hose is introduced through an opening in the roof, or through the deck of a vessel.

The present invention is for scattering the water in all directions, not in spray, but in well-directed streams that will reach to a considerable distance and describe what may be designated as spherical cycloidal paths, until the jets have reached to almost every conceivable direction from the supply-pipe, and then pass again over the same path, thus producing an action comparable to a globe of jets by the use of either two or four jets; hence using less water, and allowing each jet to issue with sufficient force to reach a great distance.

By the use of this improvement the delivery is automatic, and the apparatus can be placed directly over a fire and allowed to remain unattended in places of great danger, and scatter the water and thoroughly saturate all combustible materials within reach of the jets of water.

I make use of compound reaction revolving nozzles, that rotate around their own axis, (like a reaction water-wheel,) and also revolve around the stand-pipe, thereby scattering the water in all directions.

This apparatus is available upon vessels as well as in buildings.

In the drawing I have represented my improvement by a vertical section.

The reaction nozzles *a a b b* are upon the respective pipes *c c'*, and provided with miter gear-wheels *d d'*, gearing with the stationary miter-wheel *e*, around the stand-pipe *f*, at the end of which is a swiveled **T** tubular coupling, *g*, that is free to revolve at the end of the tube *f*, being held in place by the bolt *h* and

the pipes *c c'*, and gears *d d'* revolve around the ends of the **T**; hence there is a compound movement of the nozzles, resulting from the reactionary force of the issuing jets—viz., the pairs of jets, their connection *c* or *c'*—and the miter-gears revolve upon their own axial bolt *h*, and the gears *d d'*, acting upon the stationary gear *e*, communicate a revolving movement to the nozzles, their connections, gears, and the **T** pipe or connection *g*; and by making the gears *d d'* with a different number of teeth from the gear *e*, the issuing jets will describe a different spherical cycloidal path each time the **T**-coupling *g* revolves, until the revolutions have been sufficient to bring the parts to the place and relative positions at starting, and then the jets will describe the same path over again. In this manner the jets of water will be caused to pass off in every necessary direction with great rapidity.

Where this apparatus is to be let down through a floor or roof, *m*, the stand-pipe *f* should be supported by a tripod, *n*, of hinged legs, and the hose be connected at *o*, and the collar of this tripod may be adjustable to position the water-distributer wherever desired; but, if desired, these revolving nozzles might be upon a pipe having a frame and rollers, so as to be pushed along on a floor into a burning apartment; or tubular extensions may be used to introduce this apparatus to any desired position.

If a single nozzle, or a pair of nozzles and the gear-wheels, are used, the water will be scattered in the same manner if the **T**-coupling is revolved by hand.

I claim as my invention—

1. A revolving nozzle connected to a stand-pipe, and acting to scatter the water in all directions by the compound curved path described by the movement of the nozzle, substantially as set forth.

2. Two pairs of reactionary nozzles connected to a supply-pipe and revolving around the same by the action of the connecting gear-wheels, substantially as set forth.

Signed by me this 28th day of October, A. D. 1873.

GILBERT J. ORR.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.