E. R. BRISTOL.

Nozzles.

No. 153,311. Patented July 21, 1874.

Fig 1.

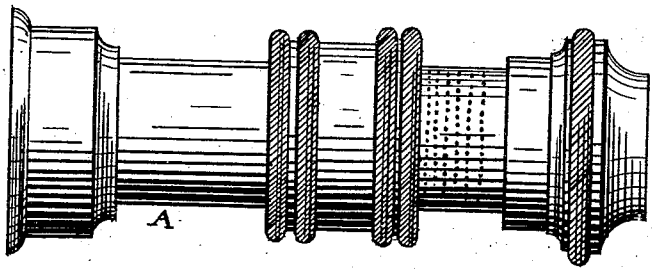
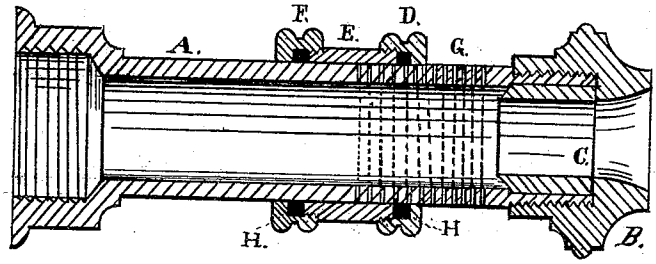


Fig 2.



WITNESSES:

James Foley

INVENTOR.

Edmund R. Bristol

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

EDMUND R. BRISTOL, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES FOLEY.

IMPROVEMENT IN NOZZLES.

Specification forming part of Letters Patent No. **153,311**, dated July 21, 1874; application filed February 10, 1874.

To all whom it may concern:

Be it known that I, EDMUND R. BRISTOL, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Fire and Smoke Protector, of which the following is a specification:

My invention has for its object the protection of firemen from the heat of fire and smoke when handling the pipe when at a fire; and is accomplished by a nozzle on the end of the hose, with small perforations round it, through which the water will be forced out in the form of a spray.

Figure 1 is a side view of my invention, and Fig. 2 is a longitudinal sectional view of same.

A is the main part of the nozzle; B, the mouth-piece or opening; C, a bushing, which forms the stream of water; D, a cap, which holds the packing; E, the sleeve which covers the perforations; F, another cap, which holds a ring of packing. These rings D and F squeeze the packing H against sleeve E and make a tight joint against the nozzle, so that the water will be kept in the pipe when the sleeve is over the perforations G—perforations in the nozzle through which the water is forced to make the protecting spray. H, the packing. This nozzle is used at fires, and whenever it is too hot for the fireman to stand it, or the smoke uncomfortable, the sleeve is slipped back, and water will be forced through the perforations and a rim of spray will be thrown out between the fireman and the fire, which will protect him from it.

I claim as my invention—

1. Nozzle A, with perforations round it, through which the water may spirt and form a spray to protect the fireman from fire and smoke, substantially as described.

2. Nozzle A, rings D and F, sleeve E, packing H, and perforations G, all in combination, substantially as specified.

EDMUND R. BRISTOL.

Witnesses:
J. B. SMITH,
JAMES FOLEY.