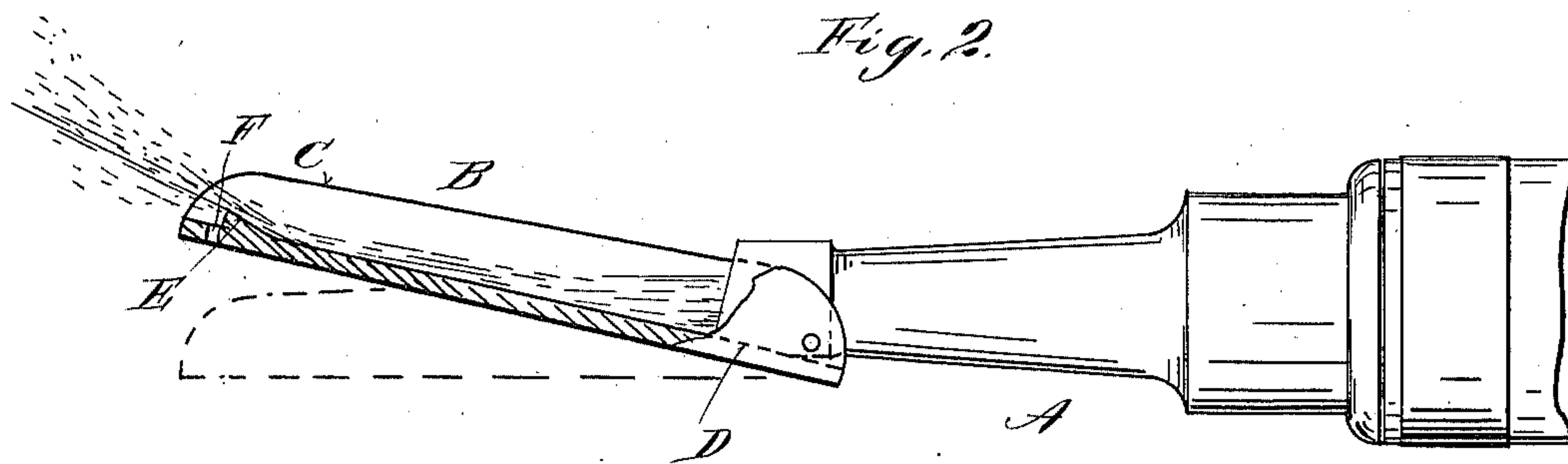
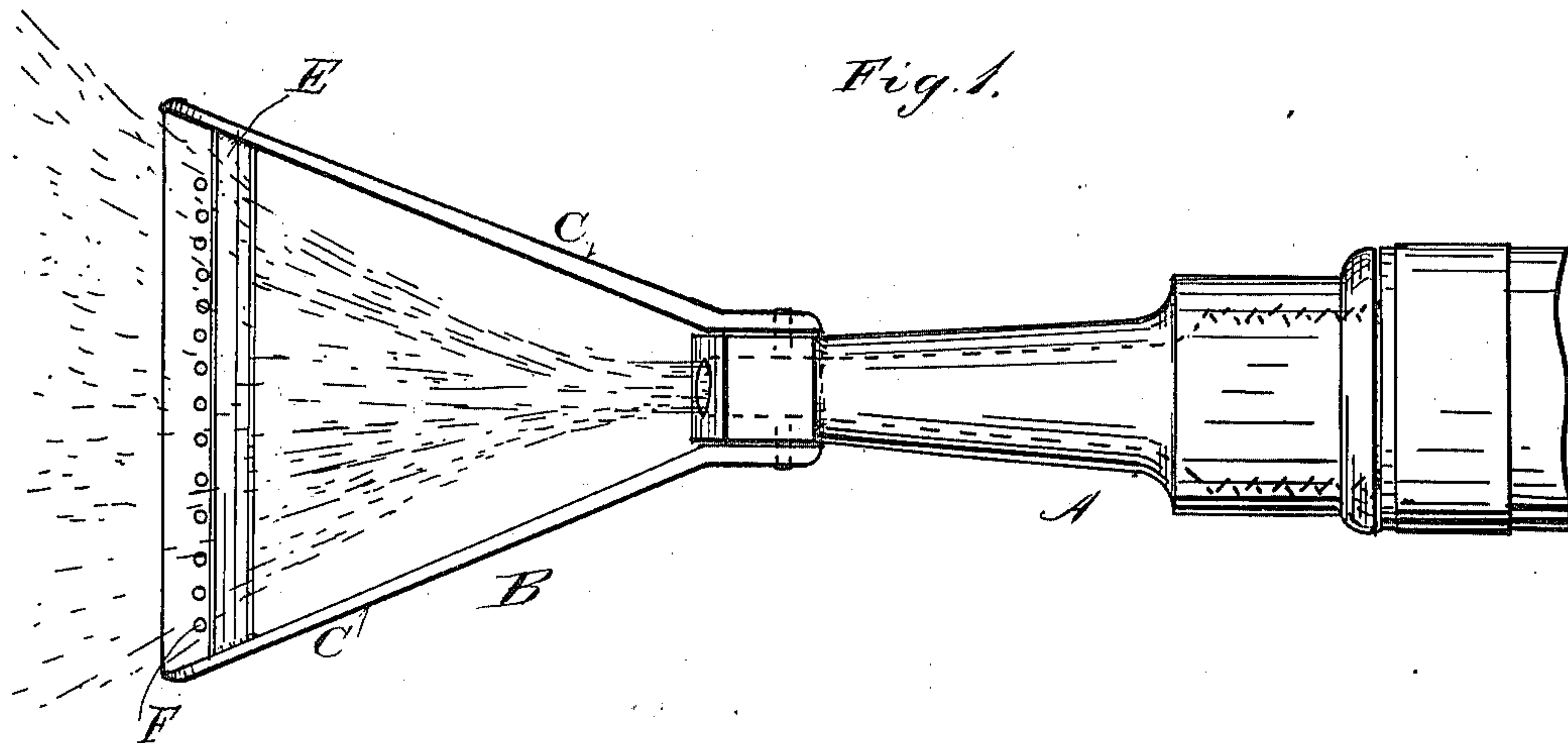


(No Model.)

R. K. PANGLE.
NOZZLE.

No. 470,410.

Patented Mar. 8, 1892.



WITNESSES:

J. M. Claiborne.
Warren Hull.

INVENTOR

Robert K. Pangle,
BY *H. A. Gaultman*
his ATTORNEY.

UNITED STATES PATENT OFFICE.

ROBERT K. PANGLE, OF SPRINGFIELD, OHIO, ASSIGNOR TO E. J. WILLIAMS
AND JAMES STORY, OF SAME PLACE.

NOZZLE.

SPECIFICATION forming part of Letters Patent No. 470,410, dated March 8, 1892.

Application filed August 28, 1890. Serial No. 363,334. (No model.)

To all whom it may concern:

Be it known that I, ROBERT K. PANGLE, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Hose-Nozzles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in hose-nozzles; and the object of my invention is to throw or project a solid stream or a broken or comminuted stream at the will of the operator with perfect ease.

The invention consists of the peculiarities hereinafter described, and pointed out in the claim.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents a view looking down upon my improved nozzle, showing the flat side of the blade or wing; and Fig. 2, a similar view looking down upon the edge of the wing or blade and showing it in two positions.

The letter A designates the nozzle proper, which may be constructed of metal or alloy and which by preference is tapered on the outside to agree substantially with the taper of the passage-way through it. At one end it is provided with an interior screw-thread adapted to be screwed upon a male coupling mounted in the hose. At the other end it is preferably fashioned with an angular termination, to the sides of which is pivoted a blade or wing B. This blade or wing is of flaring form, being contracted in width at the end adjacent to the termination of the nozzle proper and being widened toward its outer end. It is provided with ledges or sides C, which act to prevent the water from unduly spreading. These sides are pivoted to the nozzle proper, preferably at a point slightly above the end of the blade and to one side of the orifice in the nozzle. This admits of turning the blade or wing on its pivots to a posi-

tion that will more or less interrupt the direct issuance of the water from the nozzle-orifice, and also to a position which will prevent the blade or wing from in any manner interrupting or interfering with the stream projected by the nozzle proper. The nozzle proper is beveled at D to admit of the blade or wing being swung across the pathway of the projecting stream and forms a stop or limit for such adjustment of the blade or wing.

It will thus be understood that the user may at one time project a solid stream and at another time and instantly convert such stream into a spray by adjusting the blade or wing across the pathway of the stream and convert it into a flat or thin-shaped stream, which will easily and readily comminute.

I provide the wing or blade with a transverse ridge E of suitable height and shape to further interrupt the passage of the stream and break it into finer particles. In this connection I employ a suitable number of orifices F, formed in the wing or blade and just outside of the ridge. The tendency of the water passing over the ridge is to form air-drafts through these passages. These drafts enter into the spray and assist in comminuting it to an extremely-fine degree, rendering it into a state of fine mist.

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

The combination, with a nozzle proper, of a wing or blade pivoted thereto and adapted to be swung in and out of the line of the stream projected by the nozzle proper, contracted near its pivoted end, widened toward its outer end, and having ledges, a mist-forming bar, and orifices adjacent to the bar.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT K. PANGLE.

Witnesses:

OLIVER H. MILLER,
WARREN HULL.