F. J. Miller,

Nozzle.

No. 3,344. Patented Nov. 21, 1843.

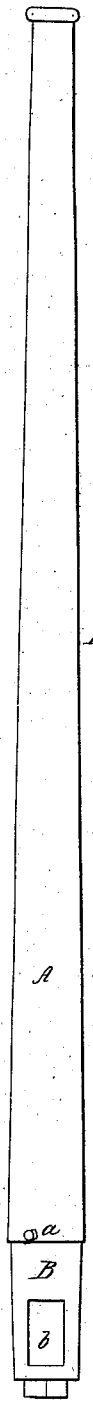


Fig. 4.

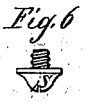

Fig. 6


Fig. 5

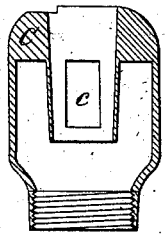


Fig. 3

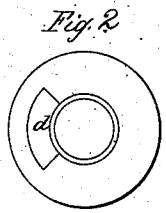


Fig. 2

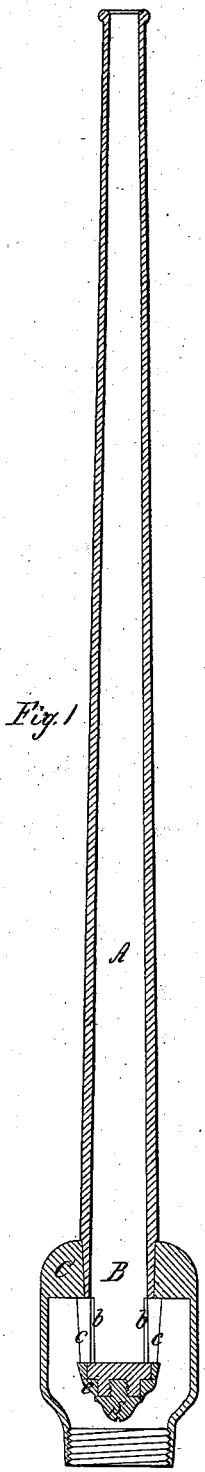


Fig. 1

# UNITED STATES PATENT OFFICE.

FRANCIS JOSEPH MILLER, OF NEW YORK, N. Y.

## STOP-COCK.

Specification of Letters Patent No. 3,344, dated November 21, 1843.

*To all whom it may concern:*

Be it known that I, FRANCIS JOSEPH MILLER, of the city of New York, in the State of New York, have invented a new and Improved Jet-Pipe for Delivering Water, Steam, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, of which—

Figure 1 is a cut section of the pipe through the center, and Figs. 2, 3, 4, 5 and 6 views and sections of the several parts of it, like parts being indicated in all by the same letters of reference.

The nature of my invention consists in making the pipe constitute of itself a stop cock, by which in cases where a cock is necessary, the pipe is rendered more easy of construction and offers less obstruction to the passage of the fluid.

At the end where the pipe is attached to the hose, or vessel, is a bulb, containing within it a cavity of a conical shape having a ground face; the end of the pipe inserted in the bulb has also a ground face, and becomes in fact the plug of the cock. It has holes in the sides, which, when they are opposite corresponding holes in the sides of the cavity in the bulb, let the fluid into the interior of the pipe. When the pipe is turned so that the holes in it and the bulb no longer coincide the fluid is shut off. The turning of the pipe within the bulb is regulated in the following manner: A notch *d* is cut in the upper side of the bulb extending from the conical hole outward and about one third of the way around the bulb; a pin inserted in the side of the pipe and projecting from it about $\frac{1}{16}$ of an inch extends into this notch and moves freely in it until the pipe is so far turned as to bring the pin against the faces or shoulders which form the sides of the notch. The limit of the pin's motion in one direction lets the fluid on in full force, in the other shuts it wholly off; the parts are kept together by a screw inserted in the lower end of the pipe.

A, the pipe; *a*, pin in the side of the pipe to regulate its motion within the bulb; B, the part of the pipe which forms the plug; *b*, holes to admit the water to the interior of the pipe; C, the bulb which has a screw thread at the lower end to attach it to the hose or vessel; *c*, openings in the side of the cavity within the bulb; *s*, screw to keep the whole together.

What I claim is—

The mode herein described of combining a jet-pipe and stop cock, that is to say making the jet-pipe the revolving part of the stop cock in the manner herein set forth, or any other substantially the same.

FRANCIS J. MILLER.

Witnesses:

WM. A. COX,

WILLIAM H. HAMBLIN.