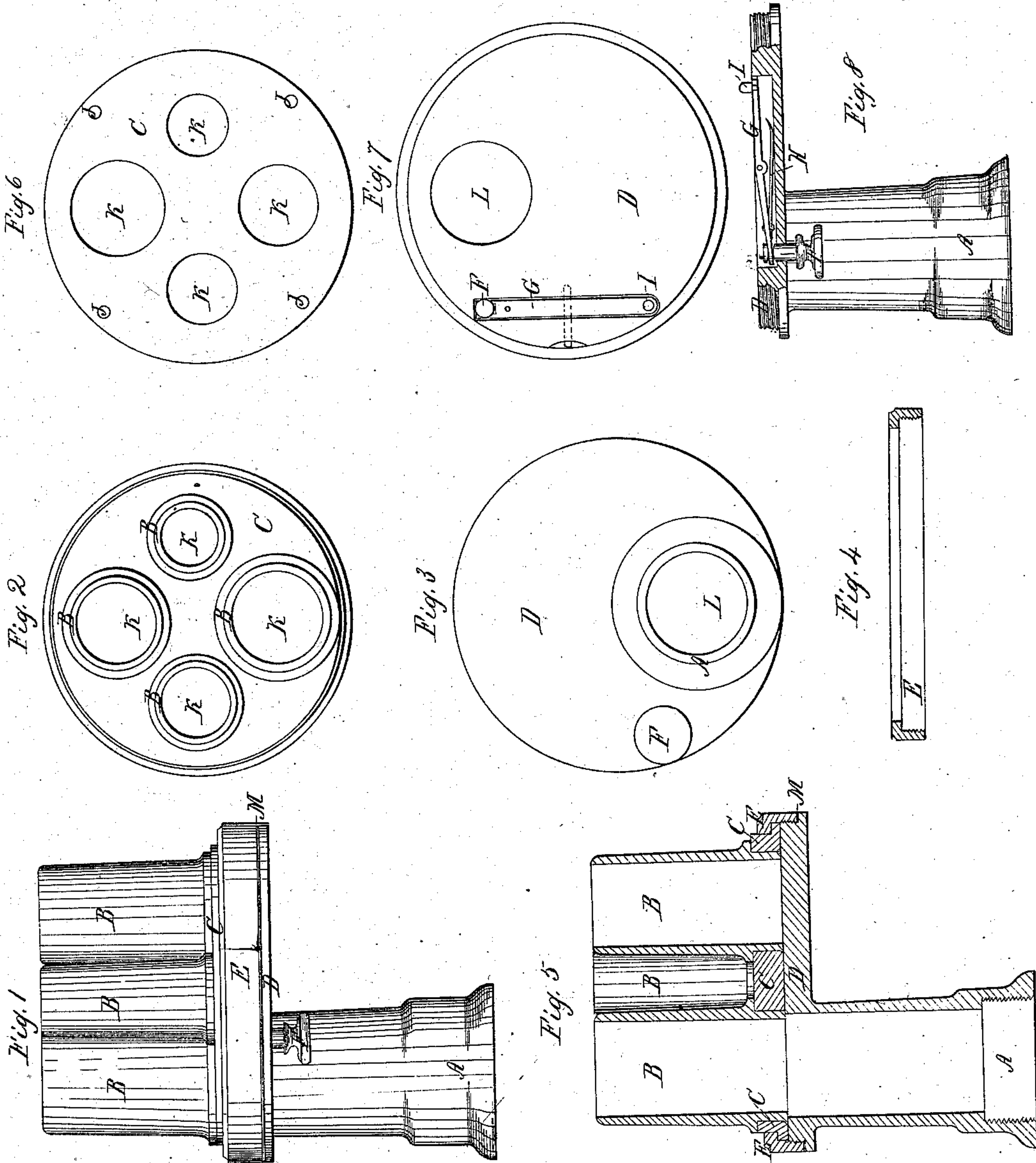


A. W. Roberts

Nozzle.

N^o 12,831.

Patented May 8, 1855.



UNITED STATES PATENT OFFICE.

ALBERT W. ROBERTS, OF HARTFORD, CONNECTICUT.

NOZZLE FOR HOSE-PIPES.

Specification of Letters Patent No. 12,831, dated May 8, 1855.

To all whom it may concern:

Be it known that I, ALBERT W. ROBERTS, of Hartford, in the county of Hartford, the State of Connecticut, have invented a new and useful Improvement in the Construction of Nozzles for Hose-Pipes for Extinguishing Fires; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in constructing a nozzle or tip for hose pipes by which the size of the stream can be changed at the will of the pipe holder.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

Figure 1, side elevation of nozzle; Fig. 2, plan showing top of upper plate with end of nozzles; Fig. 3, plan of bottom of lower plate showing the end which is attached to the pipe; Fig. 4, vertical section of nut or ring which holds the upper and lower plates together; Fig. 5, vertical section showing nozzles, plates and nut; Fig. 6, plan of under side of upper plate; Fig. 7, plan of upper side of lower plate with spring &c.; Fig. 8, vertical section of lower plate showing spring, lever, and index point.

Letter A, that part of nozzle to which the pipe is attached; B B B B, nozzles or tips of different sizes; C, upper plate; D, lower plate; E, nut or ring; F, thumb-piece; G, lever; H, spring; I, index point; J J J J, holes for index point; K, different sizes of holes in plate; L, hole through lower plate; M, leather packing. The nozzle at A, I construct in the usual manner with screw to attach to pipe. The four nozzles B B B B are made of different sizes for throwing different size streams, and are riveted or screwed into plate C. The centers of each

of the four holes K K K K in plate C, are the same distance from the center of plate. The plate D has one hole, the center of which is the same distance from center of plate, as in C. The nut E has a shoulder that fits the shoulder on plate C. D has a screw cut on its edge, to which the nut E is screwed, thereby drawing the two plates together.

F is a thumb piece attached to lever G, which by being pushed in by the thumb or finger, the index point I is thrown out of the holes J, leaving the two plates to be turned without obstruction.

The four holes J J J J are made in the underside of upper plate C, and are so made that when the centers of either of the four holes K K K K, exactly correspond with center of L, the index point I is thrown into J, by the spring H, attached on the under side of lever G. The two surfaces C and D are made to fit each other perfectly water tight by being ground together. Also the shoulders at C and E the nut E then being screwed down onto the leather packing M leaves the upper plate free to be turned to either of the required holes.

The advantages of this improved method of changing nozzles is that it can be changed at the will of the pipe holder, from a larger to a smaller hole, raising a powerful stream instantaneously by its diminished size and consequent increase of force.

What I claim as my invention, is—

The combination of two or more movable nozzles or tips of different sizes, attached to one pipe, which can be moved by the pipe holder or his assistant, to change the size of the stream when in motion, for fire engines or other purposes.

ALBERT W. ROBERTS.

Witnesses:

WATERMAN ROBERTS,
S. A. HAVENS.