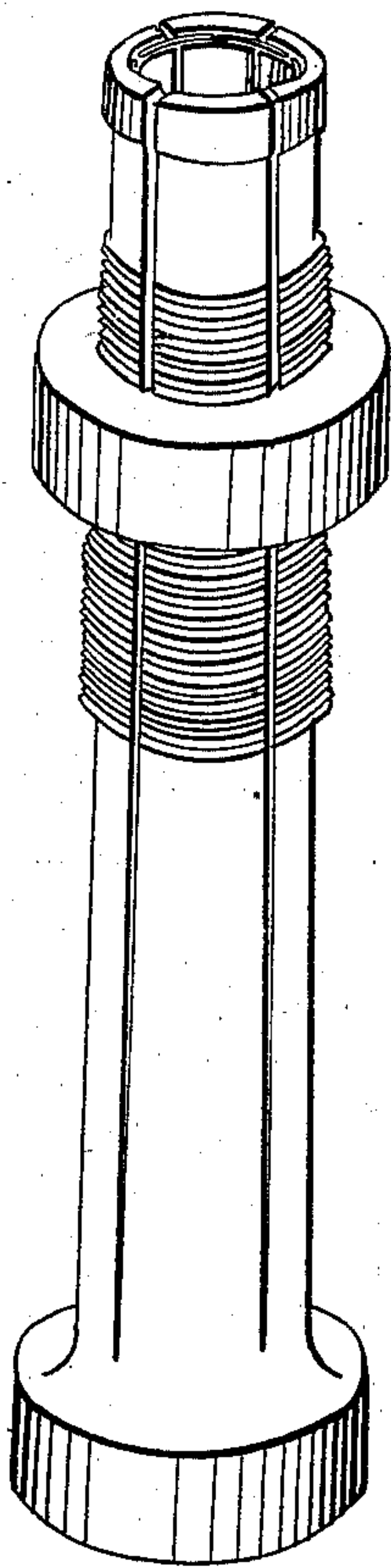
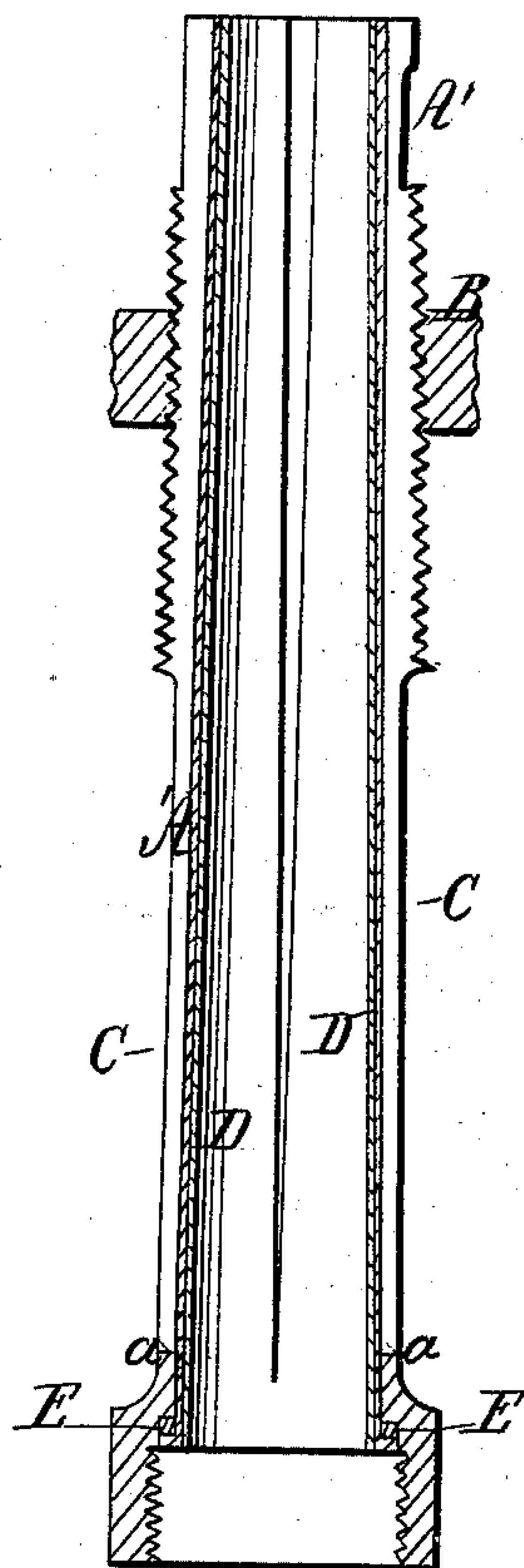


*C. Crook,*  
*Nozzle.*

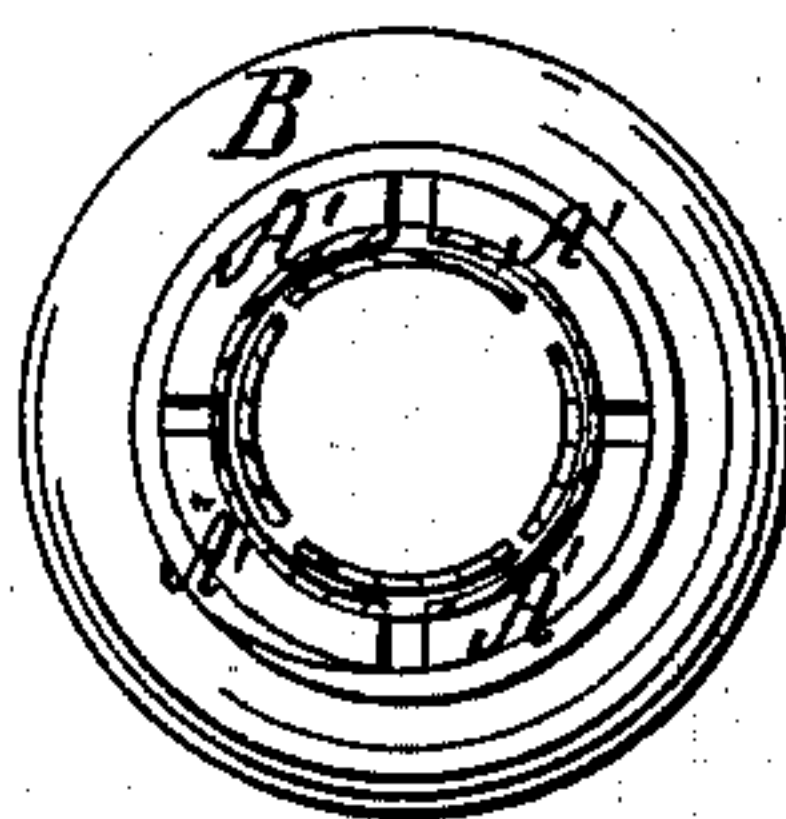
*N<sup>o</sup> 68,712.*

*Patented Sept. 10, 1867.*

*Fig. 1.*



*Fig. 2.*



*Witnesses;*  
*J. A. Service*  
*Alex F. Roberts*

*Inventor;*  
*Chas. Crook*  
*per Munn & Co*  
*Attorneys*

# United States Patent Office.

CHARLES CROOK, OF YONKERS, NEW YORK.

*Letters Patent No. 68,712, dated September 10, 1867; antedated September 4, 1867.*

## IMPROVEMENT IN EXPANSIBLE HOSE-NOZZLES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES CROOK, of Yonkers, in the county of Westchester, and State of New York, have invented a new and improved Nozzle for Hose-Pipes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The nature of this invention consists in making a nozzle for hose-pipes in such a manner that it can be adjusted so as to throw a large or small stream of water without the necessity of changing nozzles, as has been heretofore done.

Figure 1 is a sectional elevation of my improved nozzle, and

Figure 2 is a plan of the same.

Similar letters of reference indicate like parts.

A represents the nozzle, which is made of one piece of metal or other suitable substance, and in this example is split or divided in four places from the top down to *a*. The leaves *A'*, thus formed, have a degree of elasticity sufficient to keep them open, and by means of a suitable nut, *B*, which traverses a thread upon the exterior of the nozzle, as shown. The leaves *A'* can be opened or closed as much as desired by screwing the nut *B* up or down upon the thread on the nozzle, whose diameter being larger at the bottom the nut will cause the leaves *A'* to open or close, and thus enlarge or contract the hole of the nozzle, according to the movement given to the nut by the operator. Inside of the nozzle *A* I place one or more separate spring-packing tubes, *C* and *D*, cut in the same manner as the shell *A*, but made of thin metal or other suitable substance, and placed in the nozzle *A* in such a manner as to break joint each with the other, so as to back the interior of the nozzle and prevent the escape of water or other fluid through the slits in the nozzle. On the bottom of the spring-tube *C* is a flange which fits against a shoulder. Between this shoulder and the flange is placed a rubber ring, *E*, in order to keep the water from finding its way up the sides of the nozzle.

I do not limit myself to the exact form or construction of the parts herein shown, as the form and construction may be varied without departing from my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—  
I claim the combination of the duplex inner tube with the split nozzle, substantially as shown and described.  
Also, in combination therewith, the means of adjustment, substantially as shown and described.

C. CROOK.

Witnesses:

WM. F. McNAMARA,  
ALEX. F. ROBERTS.