

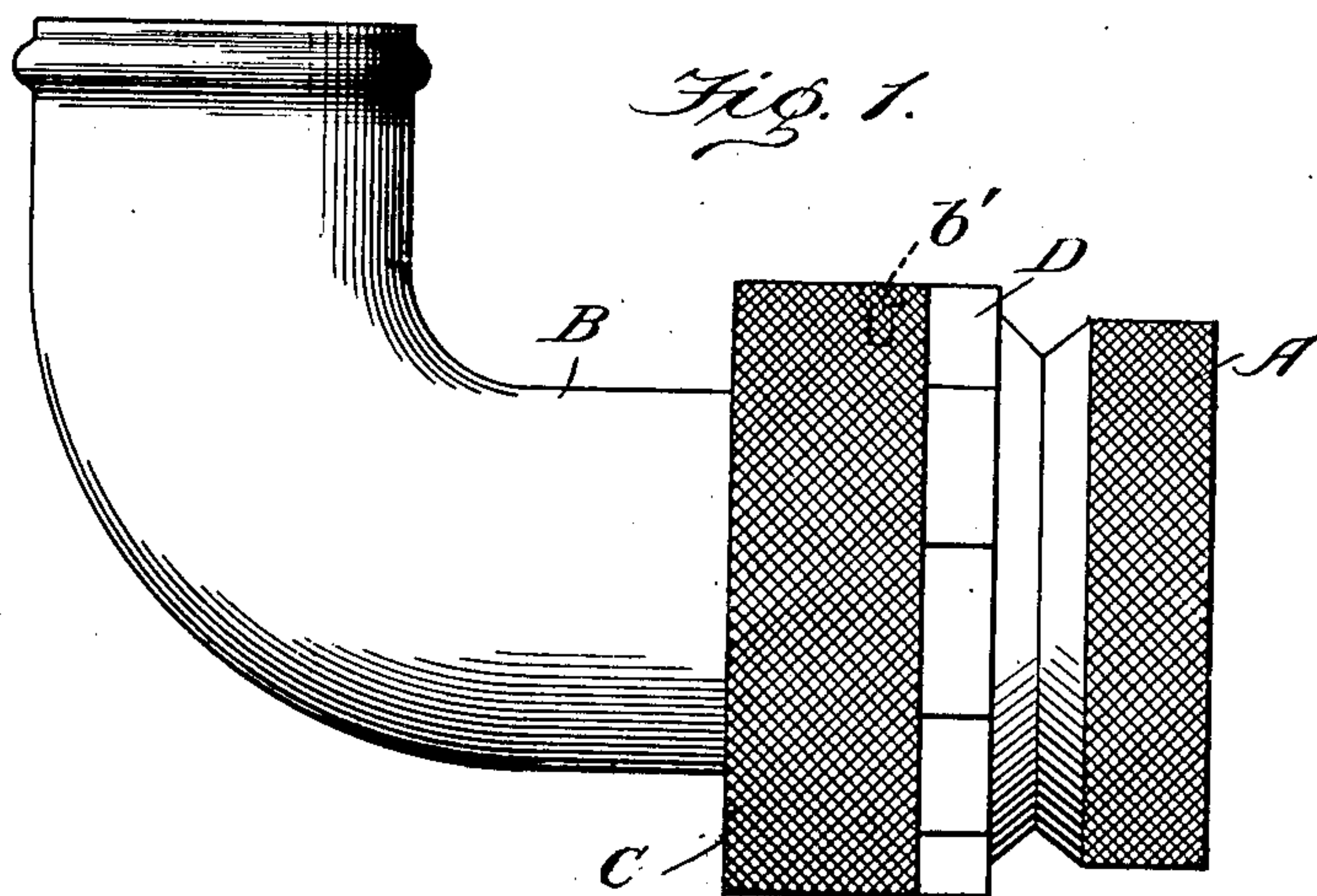
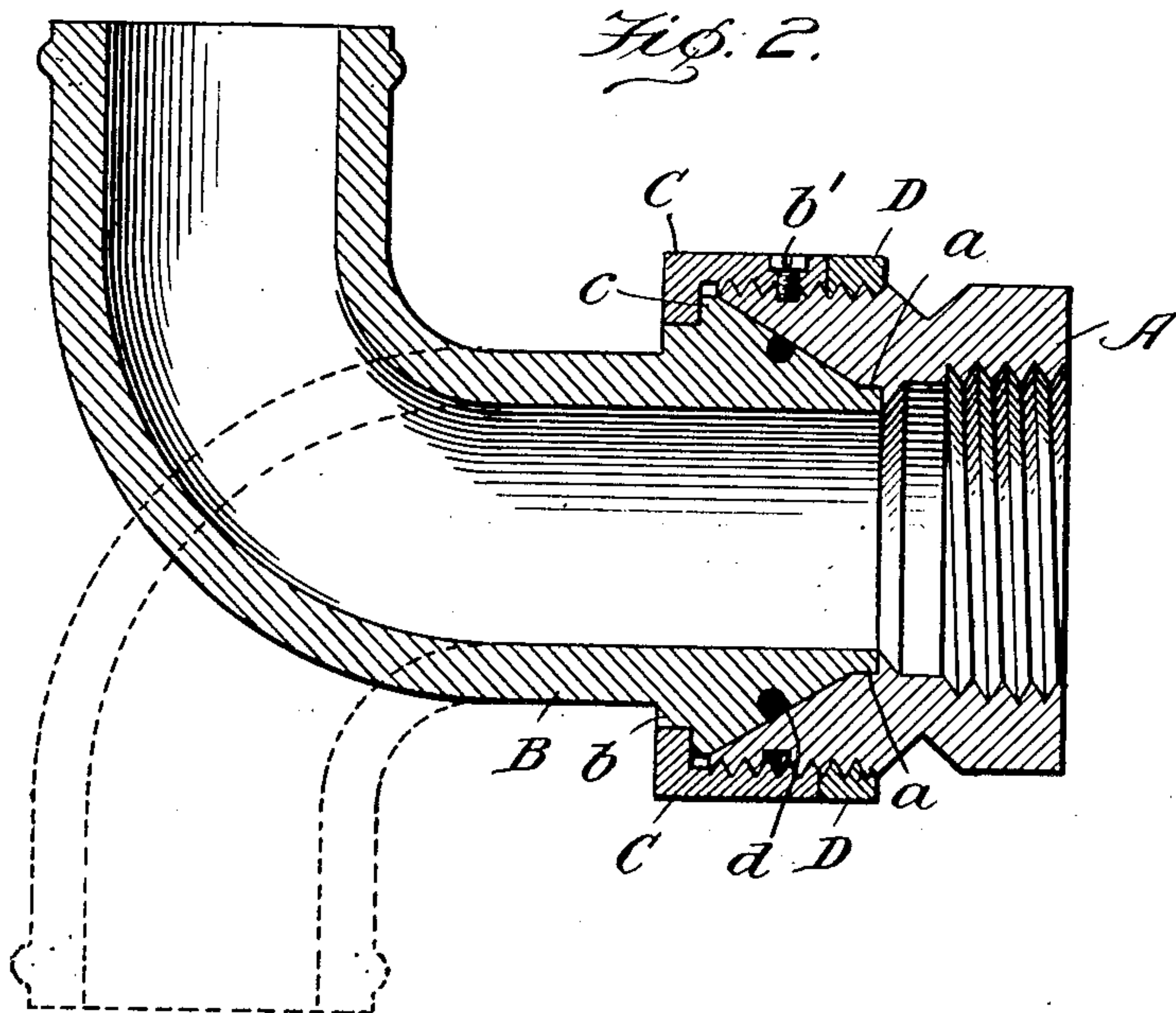
W. E. BIDEKER.

NOZZLE TIP.

APPLICATION FILED JUNE 27, 1905.

904,673.

Patented Nov. 24, 1908.



Witnesses:

J. W. Stitt,  
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# UNITED STATES PATENT OFFICE.

WILLIAM E. BIDEKER, OF FORT WORTH, TEXAS.

## NOZZLE-TIP.

No. 904,673.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed June 27, 1905. Serial No. 267,270.

*To all whom it may concern:*

Be it known that I, WILLIAM E. BIDEKER, a citizen of the United States, residing at Fort Worth, Texas, have invented a Nozzle-Tip, of which the following is a specification.

This invention relates to tips for hose nozzles and particularly for nozzles of fire hose, and the object is to produce tips which will direct the water in any direction desirable and by which this can be done without requiring the strength of several men. With this improved tip the hose with its nozzle may be placed on any convenient surface and a stream of water thrown at any angle through the 180 degrees with very little effort on the part of the attendant.

It has been demonstrated that the tip will direct water at an angle of 45 degrees without the attention of an attendant. With such tip any point within the range of the water pressure can be reached. By rotating the tip water may be thrown at any angle within 180 degrees when lying on a surface. Then by changing the direction of the hose nozzle on the surface water may be thrown in any other direction through a range of 180 degrees. With such tip when the nozzle is inserted in a building the water may be thrown to any part of the building desirable, even at right angles to the line of the hose or nozzle. The tip is particularly adapted for use in plastered walls to direct water between the studding and in floors to direct water between the ceiling or floor joists.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claim.

Reference is had to the accompanying drawings which form a part of this application and specification.

Figure 1 is a side view of the improved tip. Fig. 2 is a longitudinal section of the same, showing the invention in detail.

Similar characters of reference are used to indicate the same parts throughout the several views.

The invention consists of a seat A which may be mounted on any ordinary nozzle. The form shown is adapted to be screwed on a hose nozzle, but different modes of attaching the tip to nozzles may be utilized with different forms of nozzles. A rotatable tip B has the inner end thereof seated in a socket

formed in the seat A. The general form of the inner end of the tip is funnel-shaped or cone-shaped, but near the inner end there is a cylindrical portion *a* which is flush with a cylindrical portion of the seat. The tip has near its inner end a cylindrical portion *b* which forms a seat for the union C. The union C holds the tip and its seat in operative relation and permits the rotation of the tip B in the seat A. The union C is held in place by a lock-nut D. The union C is screwed on a threaded portion of the seat A. A set screw *b'* may be used to lock the union C and the seat A together, a groove being cut in the surface of the threaded portion of the seat A for the inner end of the set screw *b'*. The union C catches against a shoulder *c* of the tip B and holds the tip in place. A packing ring *d* is embedded in the surface of the beveled portion of the tip to make a water tight joint between the tip and the seat.

This tip may be attached to fire hose of the usual construction and be used wherever fire hose is used and will make it possible to throw water where water cannot be thrown by the ordinary fire hose. The hose equipped with the above described tip may be carried up and secured on the ladder with any suitable holding device and used to throw water in whatever direction that may be desirable. Thus it is possible for one man to use a fire hose on a ladder whereas it usually requires the strength of two or three men to manipulate a fire hose. Two or three men could not ascend a ladder to use a hose, consequently this tip makes it possible to use a fire hose where it has been impossible to use fire hose heretofore.

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

A hose nozzle comprising a seating section, said seating section terminating with an exteriorly-threaded portion and having its seat partly funnel-shaped and partly cylindrical forming a base co-extensive with said threaded portion, a rotating section provided with a bent tip and having near its inner end a cylindrical portion and an annular stop shoulder and a cone-shaped portion co-extensive with the funnel-shaped portion of said seat and conforming to the contour thereof and terminating with a cylindrical portion conforming to the contour of the cylindrical portion of said base, a packing ring embedded in the said cone-shaped portion to form a seal

between said base and said rotating section,  
and a union engaging said shoulder and the  
threaded portion of said seating section and  
the first named cylindrical section of said  
5 rotating section, the cylindrical portion of  
said seat and said union cooperating with the  
cylindrical portions of said rotating section  
to balance said rotating section.

In testimony whereof, I set my hand in the  
presence of two witnesses, this 20th day of 10  
June, 1905.

WILLIAM E. BIDEKER.

Witnesses:

A. L. JACKSON,  
J. W. STITT.