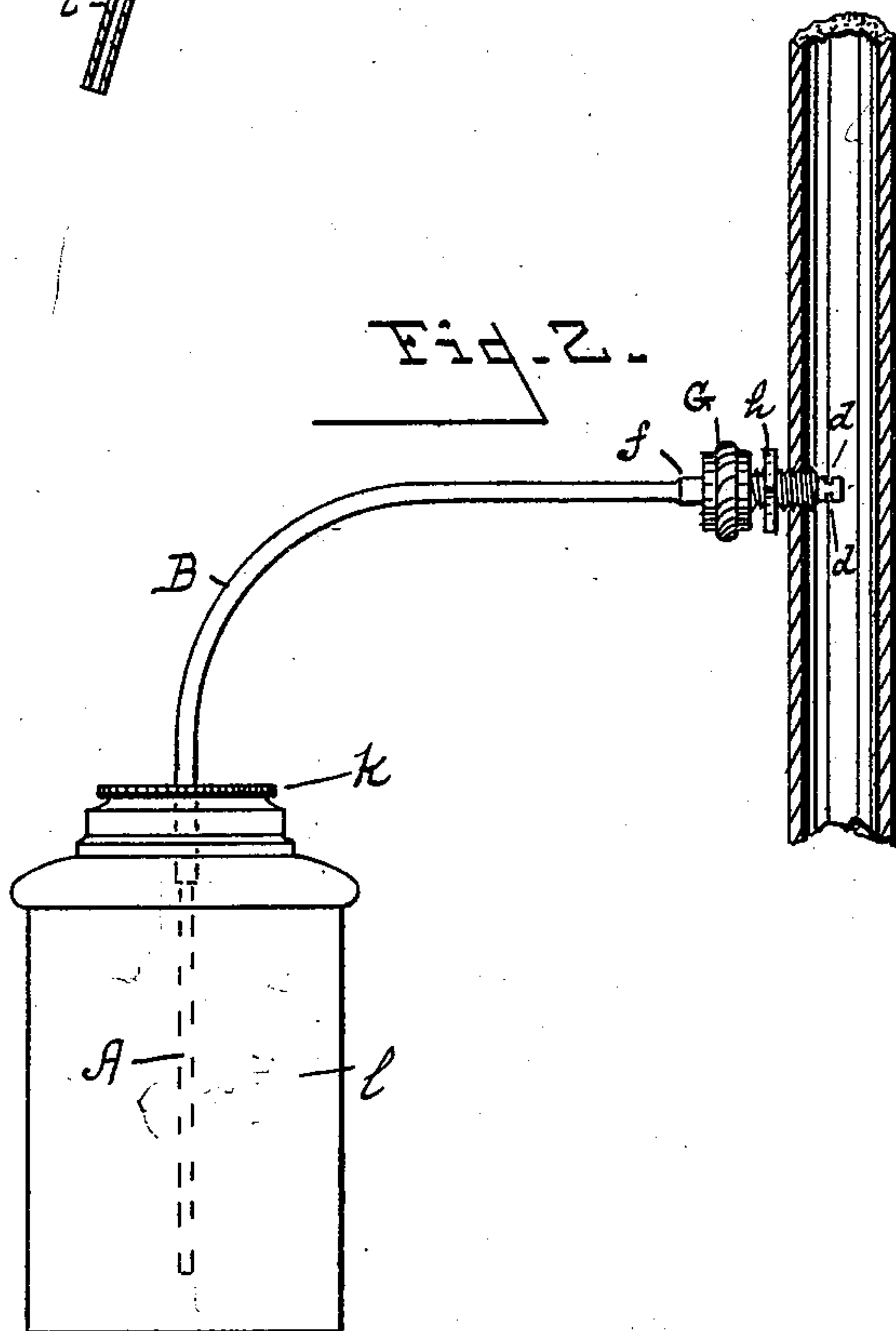
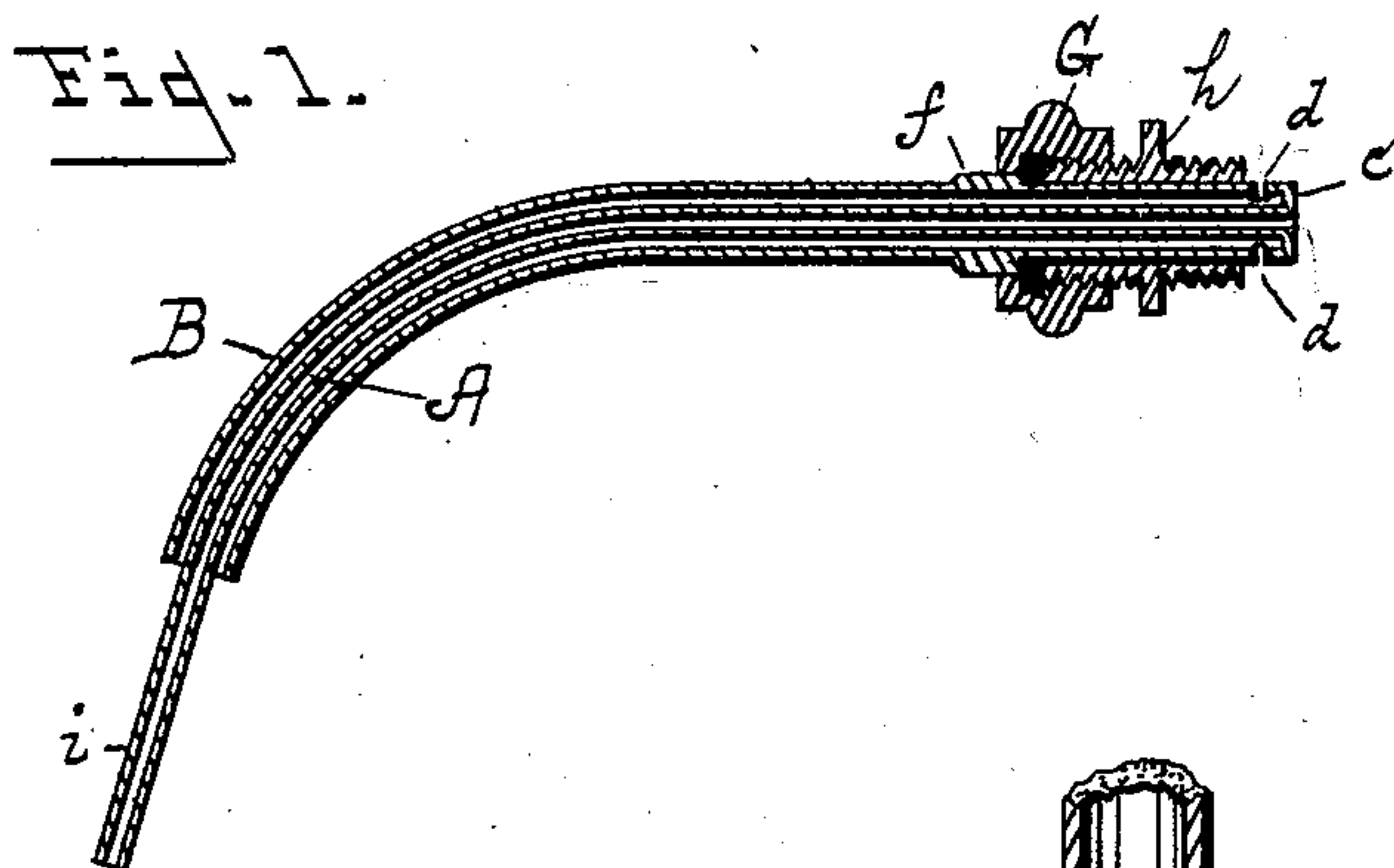


(No Model.)

W. B. HOLLINGSHEAD.  
EJECTOR.

No. 510,389.

Patented Dec. 5, 1893.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

WILLIAM B. HOLLINGSHEAD, OF BRONXVILLE, ASSIGNOR OF ONE-HALF TO  
HENRY S. BLACKMORE, OF MOUNT VERNON, NEW YORK.

## EJECTOR.

SPECIFICATION forming part of Letters Patent No. 510,389, dated December 5, 1893.

Application filed June 14, 1893. Serial No. 477,574. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. HOLLINGSHEAD, a citizen of the United States, residing at Bronxville, in the county of Westchester and State of New York, have invented new and useful Improvements in Ejectors, of which the following is a specification.

This invention relates to an automatic ejector, or feeder for use in connection with disinfecting apparatus and soda dispensing fountains, or as a feeder of liquid hydro-carbons for enriching combustible gas for illuminating purposes.

In the accompanying drawings Figure 1 is a longitudinal-sectional view of the ejector proper, as provided with a coupling for connecting same with a pipe or other device, and Fig. 2, a side view of the ejector in connection with a disinfectant vessel and water-pipe.

This invention consists of two tubes of different diameters, the smaller tube A, located within the larger tube B and the annular space between the tubes closed at one end, as shown at c. The outer tube B, is provided, near the end c with one or more perforations, or slots d; and to provide for securing the device to a pipe, or other article, the said outer pipe B has an annular collar f formed thereon, so that an internally threaded coupling-sleeve G may fit over, and against same, when made to engage one of the threaded ends of a thimble h, the opposite end of which is adapted to fit a screw-socket formed in the side of a water-pipe, so that the perforated part of the outer pipe shall project within the water pipe, as shown in Fig. 2.

The ejector-pipes are preferably curved, or bent, as shown in the drawings, and the inner pipe, A is made somewhat longer than the outer pipe, the additional length extending beyond the open end of the outer pipe, as indicated at i in Fig. 1.

For disinfecting purposes the open ends of the ejector pipes are made to pass through an opening in the cap k, of a vessel l which is adapted to contain the liquid, or disinfecting-solution, the smallest pipe projecting some distance into the vessel, and the outer pipe merely passing through the cap, in which po-

sition it is soldered or otherwise secured. If the ejector is maintained in an upright position, the liquid or disinfecting solution is forced out of the reservoir through the inner tube, upon the introduction of air or other fluid under pressure. When the ejector is attached to a pipe through which flows water or other fluid, the resistance of the end extending into the pipe, causes a portion of the fluid to be forced through the perforations or slots in the outer tube and through said tube into the reservoir forcing out an equal quantity of disinfecting fluid, through the inner tube into the liquid flowing through the pipe to which it is attached. If the reservoir l, is inverted the opposite action is attained, i. e., the fluid of pipe, passes into the reservoir through the inner tube forcing the disinfecting liquid outwardly through the outer tube and perforations or slots thereof.

For use in connection with soda-dispensing fountains, the sirup-receptacles should be arranged on a turn-table, each receptacle being provided with an ejector, as above described, so that the outer ends of the ejectors may alternately be brought under the soda-jet of the fountain, and sirup desired to be discharged with the soda, into a glass or other vessel.

When used in connection with hydro-carbon burners, the hydrocarbon is ejected, by this device into compressed air or steam, by pressure exerted by resistance of said fluid upon the ejector point, and slot or opening in the outer-tube thereof, thereby forcing the hydrocarbon through the inner tube into the pipe to which the ejector is attached, to be carried by the fluid passing through said pipe.

This ejector is also adapted for use in connection with atomizers, and other articles not necessary herein to mention.

I do not desire to confine myself to any special form of opening in the outer tube of ejector, but believe a transverse slot, as shown in the drawings, the best form for same.

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

1. An automatic fluid ejector or feeder, consisting of two tubes of different diameters,



the smallest tube located within the other, the annular space between the tubes closed at one end, and the exterior tube provided at or near said end with one or more transverse slots, 5 substantially as and for the purpose set forth.

2. An automatic fluid ejector or feeder, consisting of two tubes of different diameters, one within the other, the said tubes connected at one end so as to close the annular space 10 between same at said end; the outer pipe provided near its closed end with one or more openings, or slots, and at a short distance

from same with an annular collar, as described, in combination with an internally threaded coupling ring and an externally 15 threaded sleeve, whereby the device is adapted to be secured to any desired object, substantially as and for the purpose specified.

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

WM. B. HOLLINGSHEAD.

Witnesses:

JAMES E. TOWNER, Jr.,  
HARRY V. MORGAN.