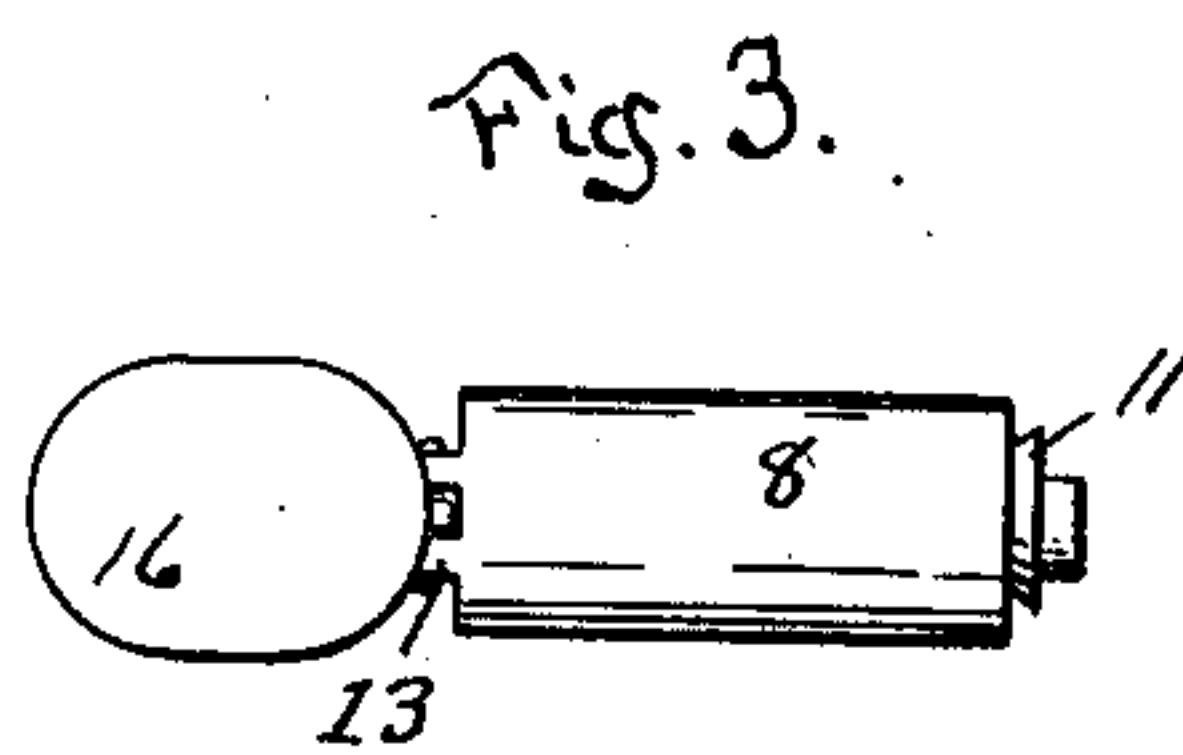
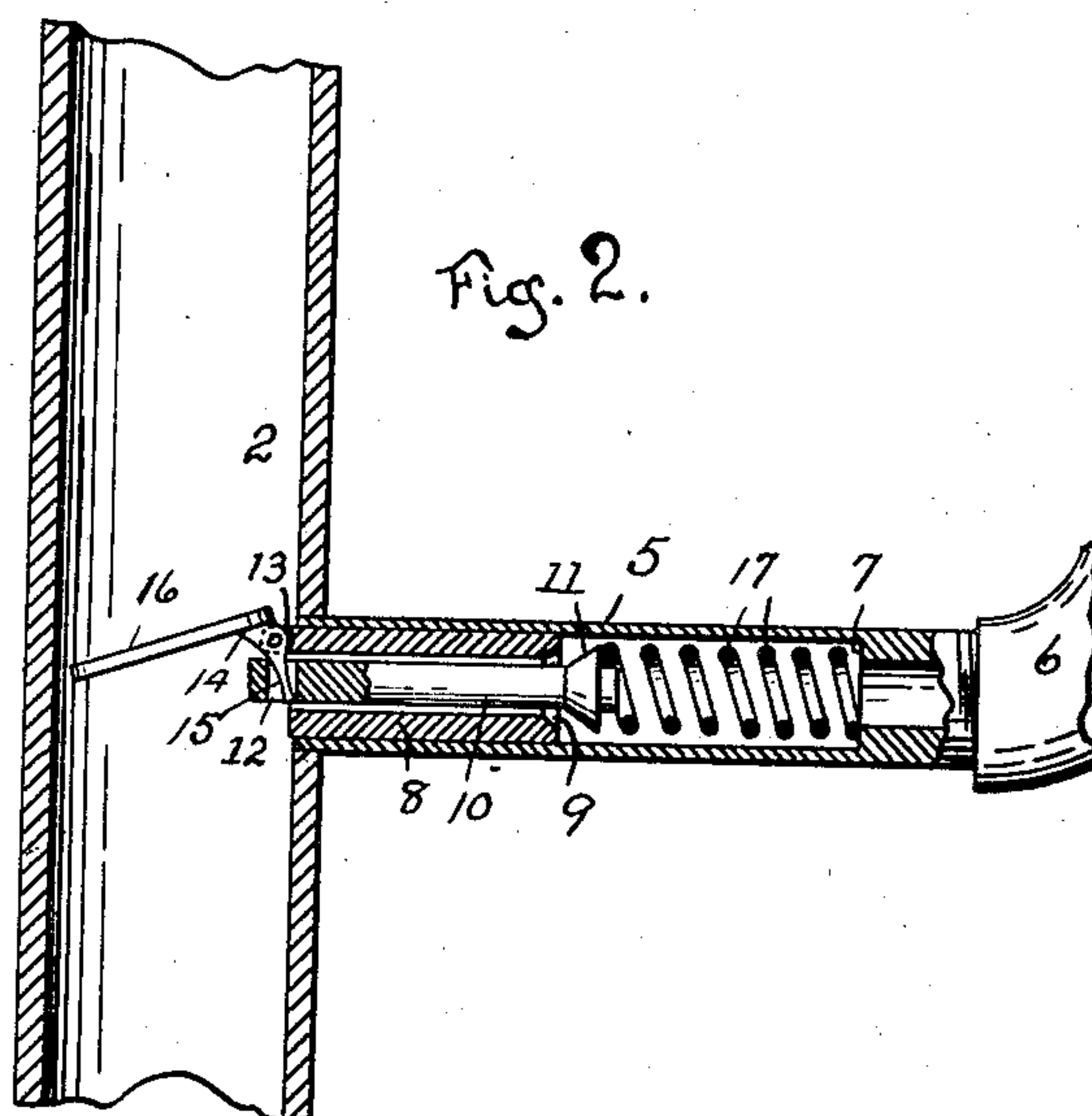
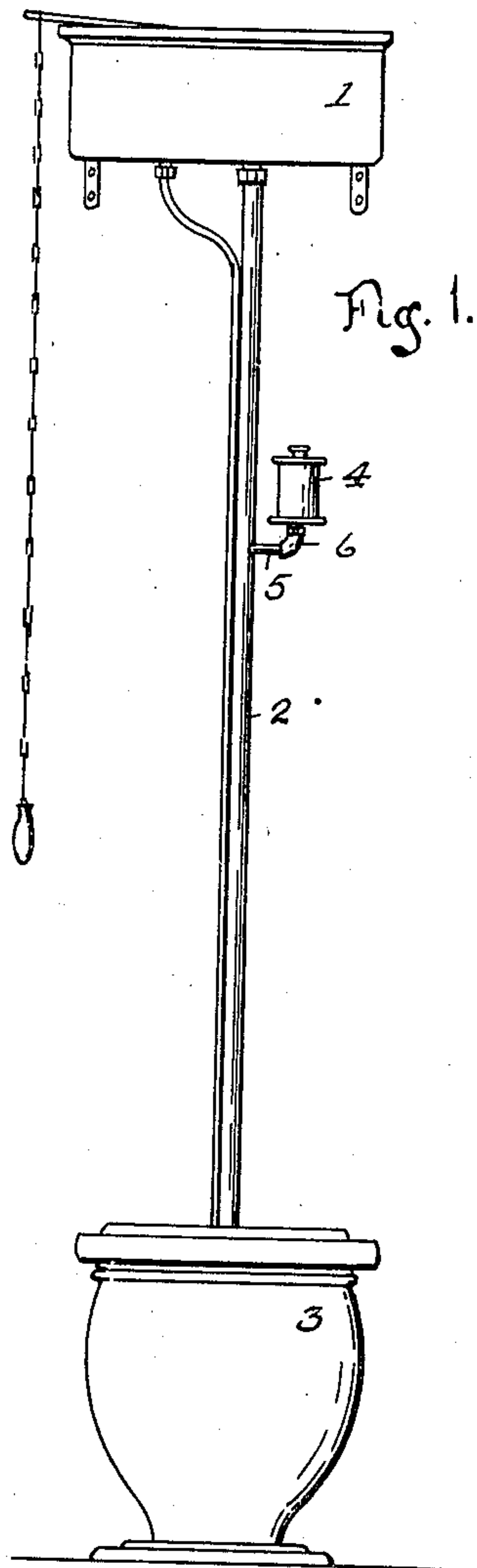


No. 843,080.

PATENTED FEB. 5, 1907.

W. H. ERMENTROUT.
DISINFECTOR FOR WATER CLOSETS.

APPLICATION FILED FEB. 9, 1906.



Wm H. ErmentROUT,

INVENTOR

WITNESSES:
J. O. Kelly,
Wathami Kelly.

BY
E. A. Kelly,

ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM H. ERMENTROUT, OF READING, PENNSYLVANIA

DISINFECTOR FOR WATER-CLOSETS.

No. 843,080.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 9, 1906. Serial No. 300,207.

To all whom it may concern:

Be it known that I, WILLIAM H. ERMENTROUT, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented new and useful Improvements in Disinfectors for Water-Closets, of which the following is a specification.

This invention relates to improvements in disinfecting devices for water-closets; and my invention consists of a device secured to the flush-pipe of the closet in such a manner that the feed of the disinfectant is operated automatically by the flushing of the water through said pipe.

The invention consists of a cup adapted to contain fluid disinfectant secured to the flush-pipe and having a valve the stem of which is automatically operated by the water passing down the flush-pipe, thus delivering a quantity of the disinfecting material every time the flush is operated and at no other time.

The device can be set to discharge at each emptying of the flushing-tank an amount corresponding in proportion to the number of gallons the tank contains, and that much, but no more, will be sent through the basin and drain-pipe, leaving the water that remains in the basin and in the trap thoroughly disinfected.

My device is particularly economical as to the use of the disinfectant, since it not only applies the disinfectant at the right time and at the right place, but it causes each drop of the disinfecting fluid to do the maximum amount of work.

The invention is more fully described in the following specification, and clearly illustrated in the accompanying drawings, in which—

Figure 1 shows my device applied to the flush-pipe of an ordinary water-closet. Fig. 2 is a sectional view of the valve and the valve-tube. Fig. 3 is a plan view of the valve.

The numeral 1 designates an ordinary flushing-tank, and 2 the flush-pipe leading therefrom to the basin 3.

At a suitable distance between the tank and the basin I secure my device, which device consists of a cup 4, adapted to hold fluid disinfecting material, and a tube leading from the bottom thereof at right angles to the flush-pipe, to which it is secured in any

suitable manner. This tube is formed in two parts—a straight portion 5, which is secured to the flush-pipe, and a curved portion or L 6, which connects the portion 5 to the cup.

In the straight portion 5 of this tube I form an internal circumferential ledge or shoulder 7. A hollow plug 8 fits snugly in the end of this tube, and this plug is formed with a valve-seat 9 at its inner end. A valve-stem 10 fits loosely in this plug and carries on its inner end a valve 11, adapted to seat against the end 9 of the plug. The opposite or outer end of this stem 10 is formed with a slot 12. The outer end of the plug is also formed with two ears 13. The numeral 14 designates a lever which is pivotally mounted between said ears, its lower end loosely engaging the slot 12 in the valve-stem and its upper end 16 being made in the form of a plate lying approximately parallel with the axial line of the valve-stem and at right angles to its depending end 15. A coil-spring 17 is located in the tube 5 and rests against the shoulder 7 and against the rear end of the valve 11, thus tending to keep the valve seated and the plate 16 in normal position across the path of the water flowing in the flush-pipe.

The discharge of the disinfectant is regulated by the strength of the spring 17. When it is desired to have the liquid flow freely, a comparatively weak spring is used, and in like manner a stronger spring when the discharge is to be limited.

The flow of water down the flush-pipe will depress the plate 16 until it assumes the position as shown in Fig. 2, and this action will force the valve-stem in and open the valve, allowing the liquid in the cup to pass out through the tube and mingle with the water from the tank. When the water ceases to flow, the spring will close the valve and all useless discharge of the disinfecting fluid is stopped. When it is desired to clean the tube, the cup may be readily removed, thus giving access to the parts.

Having thus described my invention, what I claim is—

1. A disinfecting device for attachment to a water-closet flush-pipe comprising a cup, a right-angled tube leading therefrom into said pipe, a plug located in said tube, a valve-seat formed on the end of said plug, a valve-stem in said plug, a valve adapted to seat against said valve-seat, and a plate pivoted to said

plug, lying in the path of the water in said pipe and having an angled end operatively connected to said valve-stem.

2. A valve for disinfectant-distributors
5 comprising a tubular plug, a valve-seat
formed on the one end thereof, perforated
ears formed on the opposite end, a lever piv-
oted between said ears, said lever comprising
a plate and a depending angled end, a valve-
10 stem loosely fitting said plug, a valve on the
one end of said stem, a slot in the opposite

end adapted to be engaged by said angled
end of the plate-lever, a tubular casing hav-
ing an internal shoulder and a coiled spring
interposed between said shoulder and the end
of said valve-stem.

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

WILLIAM H. ERMENTROUT.

Witnesses:

J. O'R. KELLY,
ED. A. KELLY.