

V. A. WILLIAMS.  
DISINFECTING APPARATUS.  
APPLICATION FILED MAY 16, 1908.

914,544.

Patented Mar. 9, 1909.

Fig. 1.

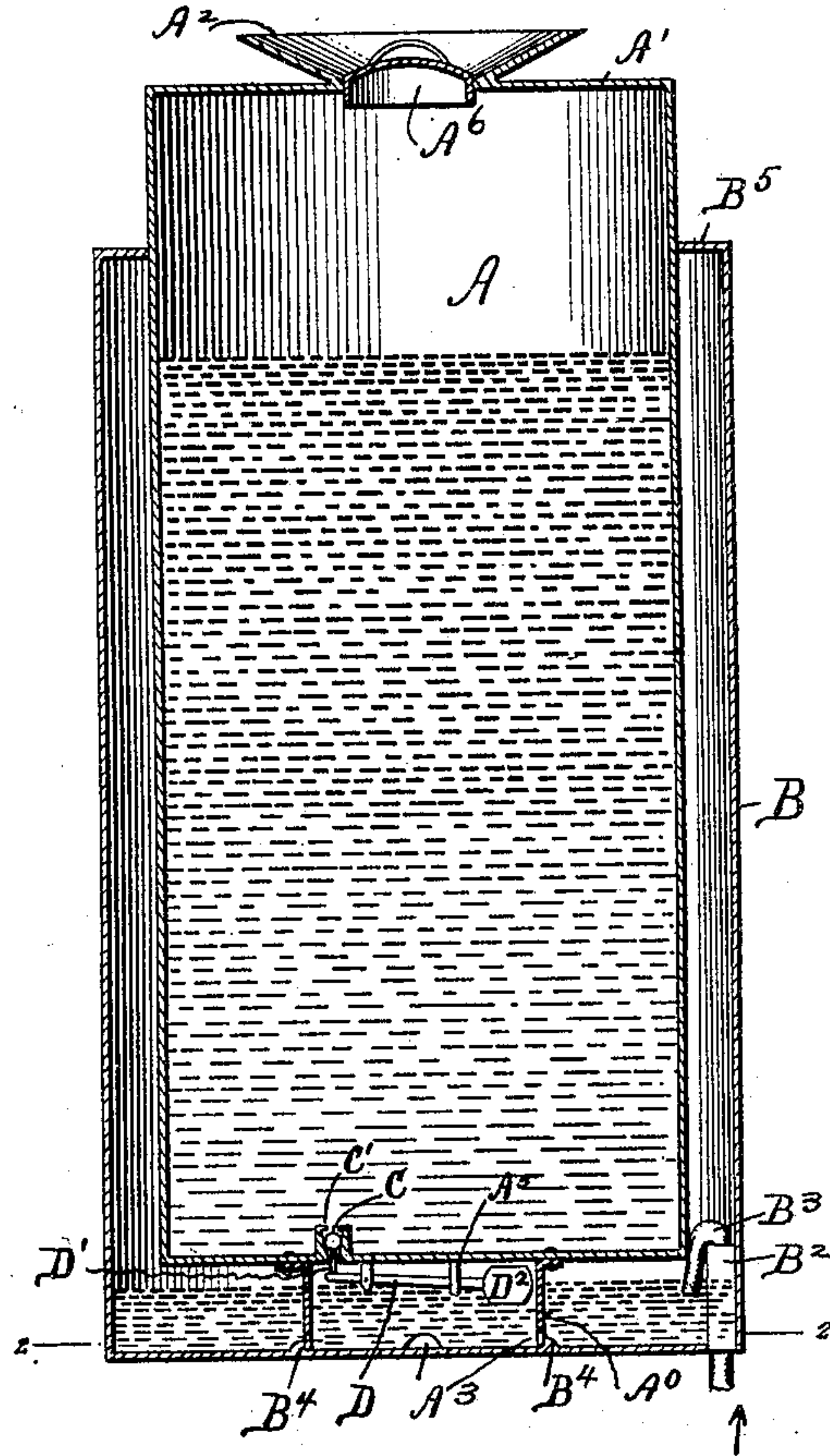
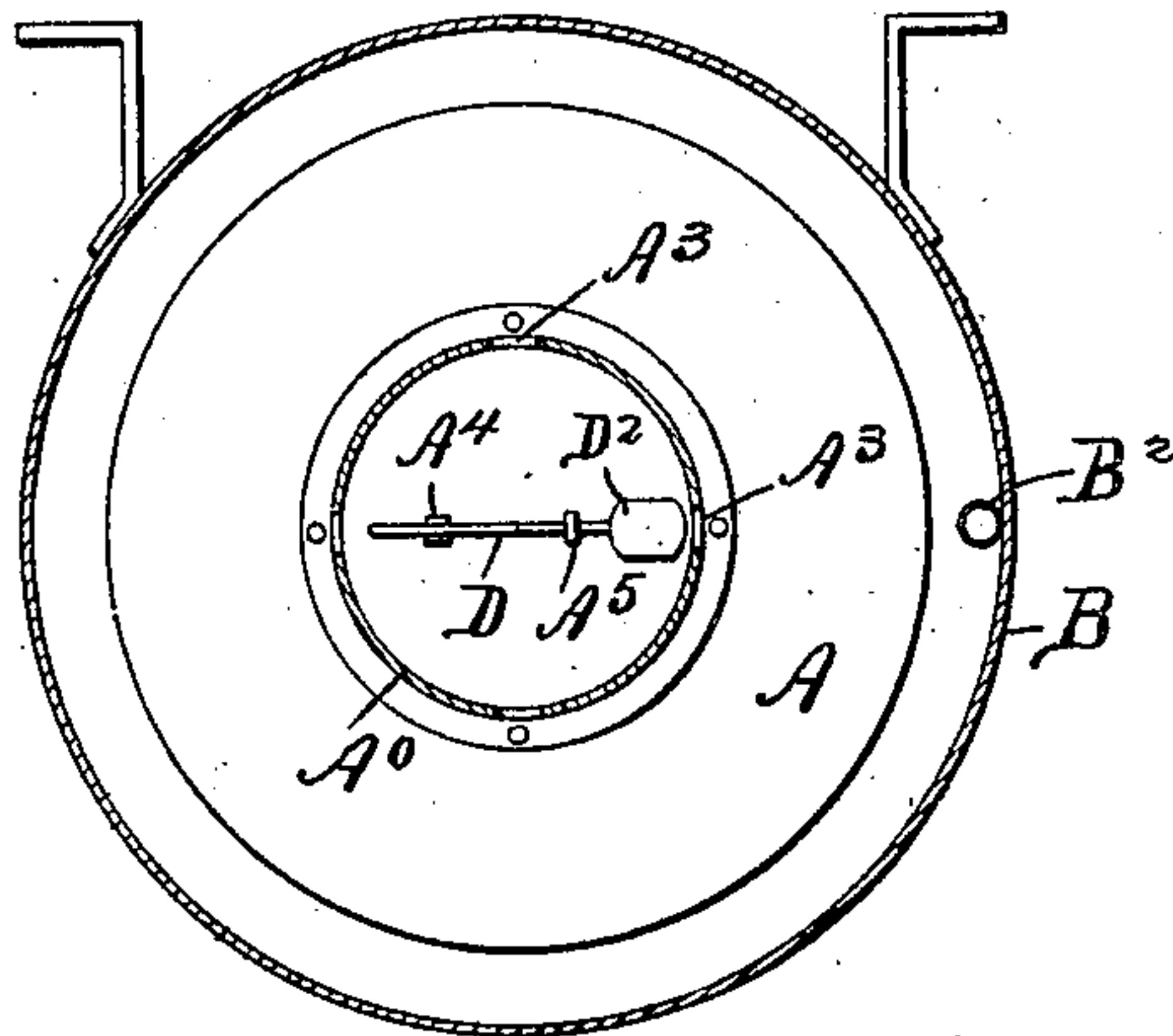


Fig. 2.



Witnesses

Jos. F. Collins,  
R. Craig Greene.

Inventor

Virgil A. Williams,

By

W. H. Lamar,

Attorney



# UNITED STATES PATENT OFFICE.

VIRGIL A. WILLIAMS, OF SEDALIA, MISSOURI.

## DISINFECTING APPARATUS.

No. 914,544.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed May 16, 1908. Serial No. 433,179.

*To all whom it may concern:*

Be it known that I, VIRGIL A. WILLIAMS, citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented certain new and useful Improvements in Disinfecting Apparatus, of which the following is a specification.

This invention pertains to disinfecting devices especially adapted for use with urinals and the like, and the general object is to provide for securing a constant slow delivery of disinfecting liquid whatever the quantity of such liquid in the primary receptacle containing the same.

The desired end is attained by the use of a secondary receptacle for the liquid and placing therein a float arranged to automatically control a valve for admitting liquid thereto from the primary receptacle or reservoir, and further providing means for slowly discharging from the secondary receptacle the liquid which the float and valve always maintain at a predetermined level.

In the accompanying drawings, Figure 1 is a diametrical vertical section of the apparatus. Fig. 2 is a section on the line 2—2 of Fig. 1, looking in the direction of the arrow.

In these figures, A represents a primary reservoir or receptacle, for containing disinfecting liquid, preferably having a top A' provided with a filling funnel A<sup>2</sup>, and B is an upwardly open secondary receptacle having at one side an open tube B<sup>2</sup> in which is placed a wick B<sup>3</sup> the inner free end of which extends down approximately to the bottom of the receptacle B. The support for the reservoir A is shown as a short downwardly open tube A<sup>0</sup> fixed to the bottom of the reservoir A and having apertures A<sup>3</sup> through which its interior communicates with the space outside the support. The reservoir, which is freely removable from the receptacle B, is held in central position therein by projections B<sup>4</sup> just outside the support A<sup>0</sup> and by an inwardly projecting flange B<sup>5</sup> at the upper edge of the receptacle B. In the bottom of the reservoir is an opening leading into the space within the support at a point near one side thereof. This opening is normally closed by a ball valve C working in an internally conical chamber wherein its upward movement is limited and its escape prevented by a flange C'. Within the support A<sup>0</sup> a lever D is pivoted to lugs A<sup>4</sup> on the bottom of the reser-

voir. Its short arm bears a pin D' projecting into the valve-closed opening, and its longer arm, which swings in a fixed guide A<sup>5</sup> bears at its free end a float D<sup>2</sup> within and protected by the support A<sup>0</sup>.

The parts are so proportioned that when the liquid in the receptacle B is at the desired level, the float holds the pin in such position that the ball valve prevents liquid from entering the receptacle B, but when the wick has discharged enough liquid to lower that level materially, the descent of the float raises the pin, displacing the ball and allowing liquid to pass; and thus a practically constant level is maintained so long as the reservoir contains a supply. The reservoir is shown as provided with a removable cover A<sup>6</sup>, but this may be removed when it is desired to allow some direct escape of disinfecting vapor.

What I claim is:

1. In apparatus of the class described, the combination with a receptacle provided with means for slowly discharging liquid from its lower portion, of a removable reservoir within said receptacle and provided with a filling opening above and a discharge opening below, a closure for the filling opening, a float valve controlling the discharge opening, and a reservoir supporting and valve protecting device carried by the reservoir and resting upon the bottom of the receptacle, substantially as set forth.

2. The combination with a receptacle provided with means for slowly discharging liquid from its lower part, with a reservoir-centering device upon its bottom and with an inwardly turned centering and closing flange at its upper end, of a concentric, removable reservoir fitting the space within said flange provided at its top with an opening having a non-hermetic closure and with a support at its bottom to rest upon the bottom of the receptacle, a valve controlling the discharge of liquid from the reservoir into the receptacle, and a float within said support for controlling said valve, substantially as set forth.

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

VIRGIL A. WILLIAMS.

Witnesses:

J. H. RODES,  
THOS. WATERS.