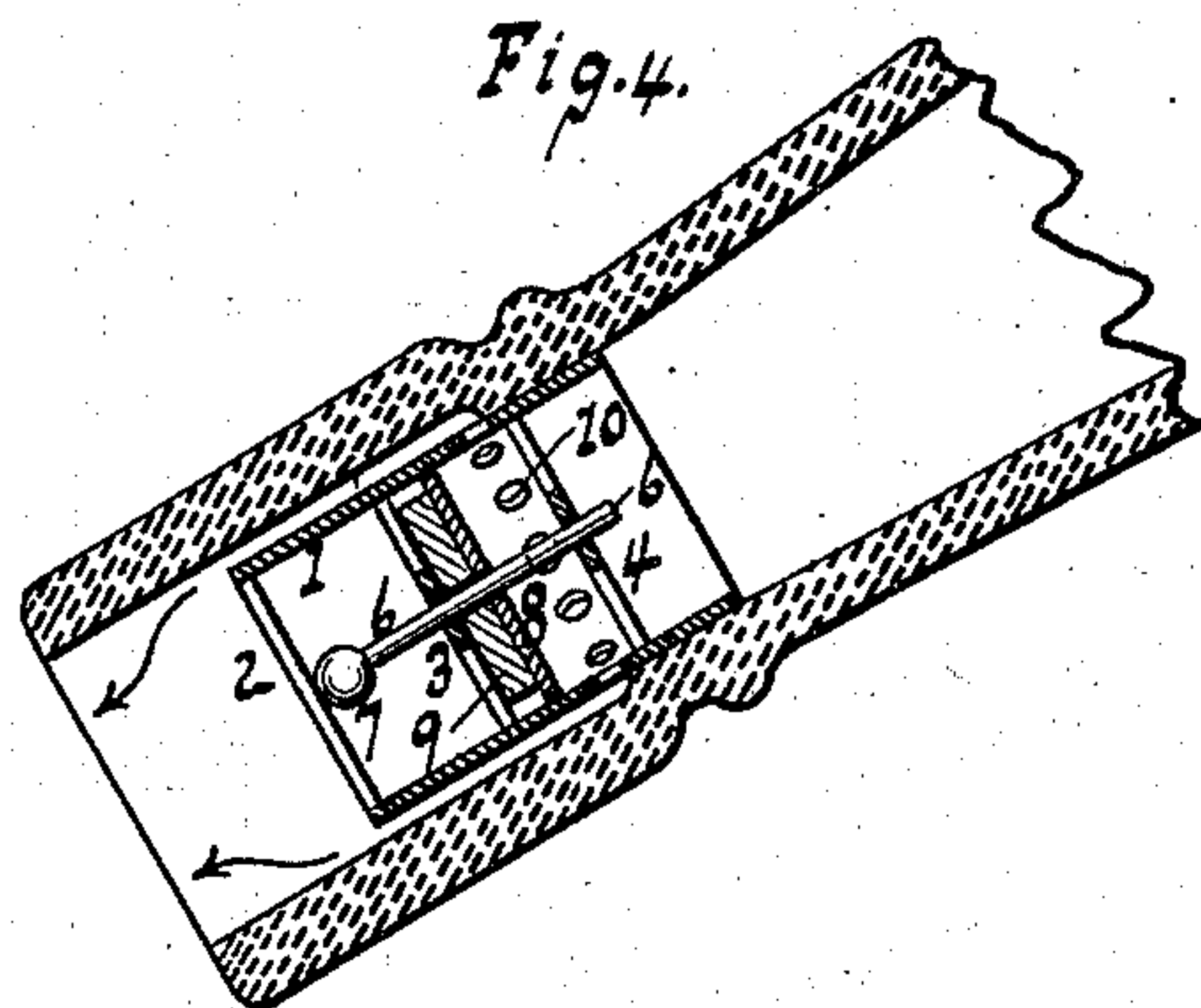
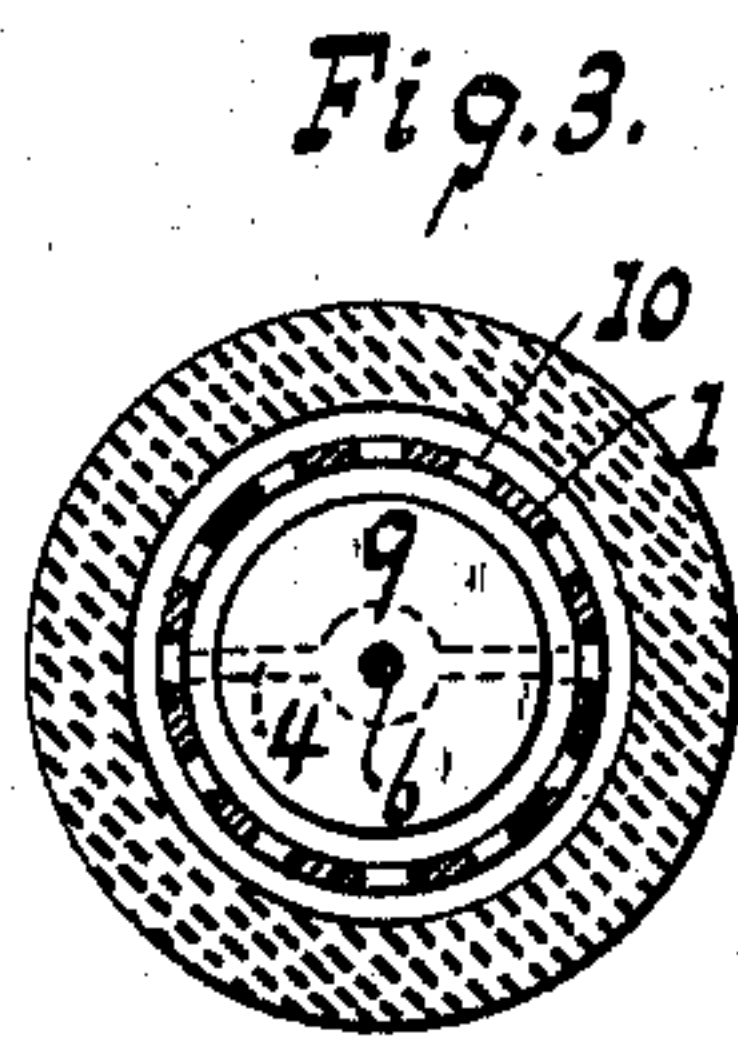
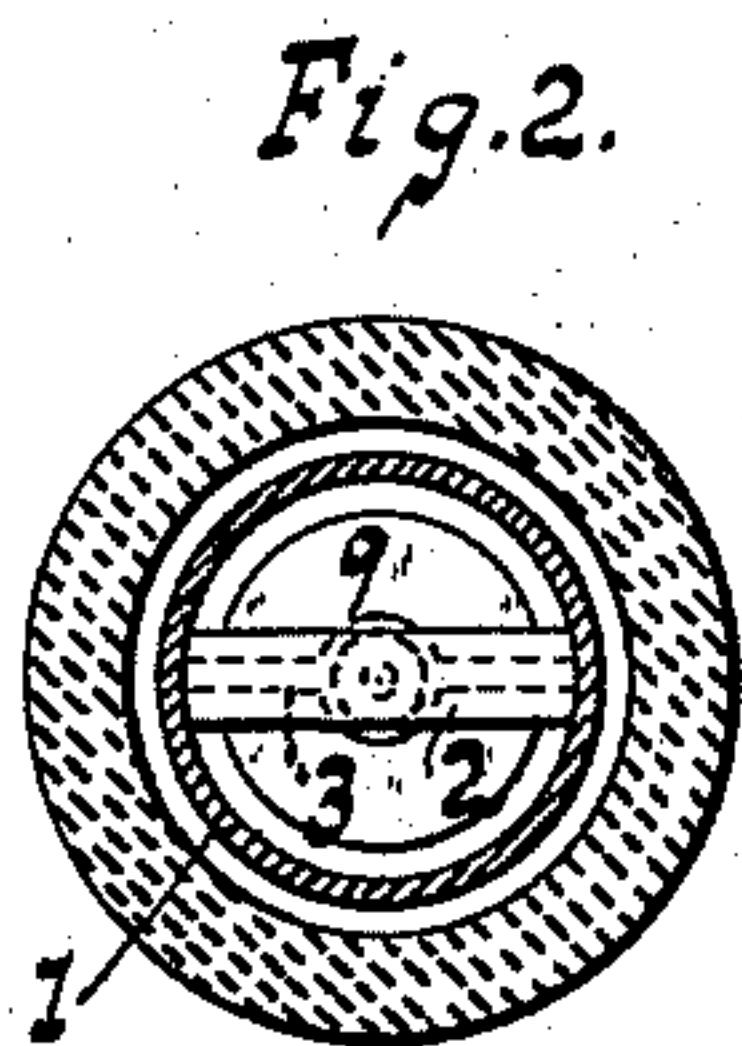
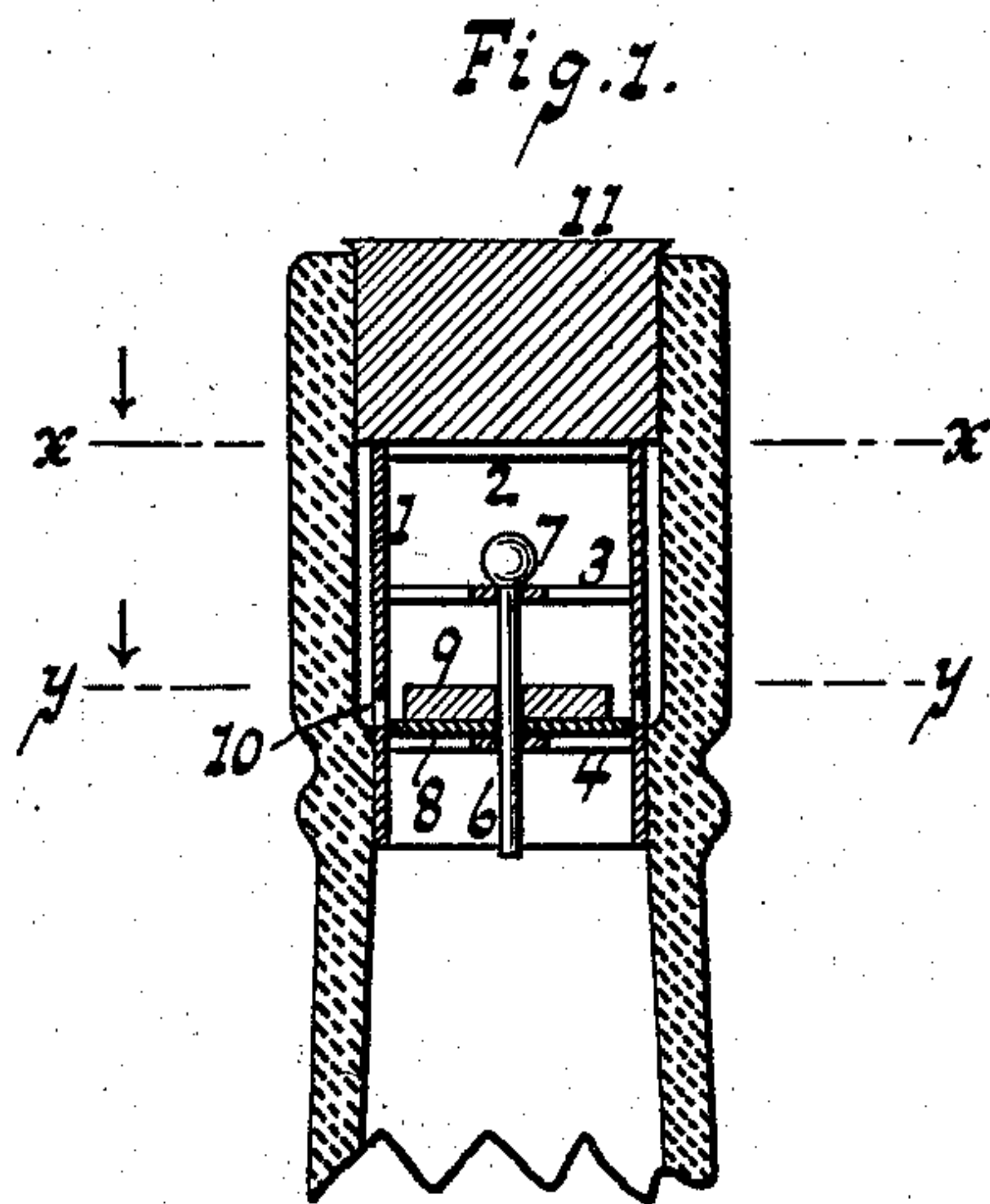


(No Model.)

J. C. WEITZEL.  
BOTTLE STOPPER.

No. 562,327.

Patented June 16, 1896.



WITNESSES:

*William Miller*  
*Chas. E. Poerger.*

INVENTOR

*John C. Weitzel*

BY

*Hauff & Hauff*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

JOHN C. WEITZEL, OF JERSEY CITY, NEW JERSEY.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 562,327, dated June 16, 1896.

Application filed January 16, 1896. Serial No. 575,749. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. WEITZEL, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention has for its object to provide a bottle with novel, simple, economical and efficient means to prevent refilling the bottle after the original contents have been discharged therefrom.

To accomplish this object, my invention consists in a cylindrical tube having a series of lateral perforations and fitted into a bottle-neck to provide an intervening annular channel with which the perforations communicate, a lower cross-bar arranged in the tube below the perforations, a cross-bar arranged in the tube above the perforations, a pin having a head and slidable lengthwise in said cross-bars, a float mounted on the pin between the cross-bars and comprising a disk which rests upon the lower cross-bar below the lateral perforations when the bottle is perpendicular, or approximately so, and a cross-strip at the upper end of the tube which constitutes a stop for the pin.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a detail sectional view showing a portion of a bottle with my improved stopper applied thereto. Fig. 2 is a sectional view taken on the line  $x x$ , Fig. 1. Fig. 3 is a sectional view taken on the line  $y y$ , Fig. 1; and Fig. 4 is a view similar to Fig. 1, showing the position of the parts when the bottle is tilted or upset, as when discharging or pouring the contents therefrom.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates a cylindrical tube provided, intermediate its ends, with an annular row of lateral projections 10. The wall of the tube is otherwise imperforate, and the lower imperforate end is fitted into the neck of the bottle, in such manner as to provide an annular channel or space above the perforations 10 between the internal surface of the bottle-neck and the external surface of

the tube. This intervening annular channel or space communicates at its lower portion with the lateral perforations 10, so that the contents of the bottle can be discharged through the latter and through the channel or space, as will hereinafter appear.

The interior of the cylindrical tube is provided, immediately below the lateral perforations 10, with a float-support composed of a cross-bar 4, and in the tube, above the perforations, is arranged a float-stop, composed of a cross-bar 3. A guide pin or stem 6, having a head 7 at its upper end, extends loosely through the upper and lower cross-bars 3 and 4.

The float is composed of a disk 8 and a cork 9, mounted thereupon. The disk 8 is of a diameter sufficient to make it accurately fit the interior of the tube, while the cork 9 is preferably of a less diameter than the disk. The upper or outer end of the tube is provided with a pin-stop, composed of a strip 2, extending across the tube and secured thereto, so that when the bottle is tilted, as in Fig. 4, the pin or stem 6 can slide outward, and its head 7 will strike the stop-strip 2, so that the motion of the pin or stem is limited. The float rests upon the lower cross-bar 4 when the bottle is vertical, or approximately so, and in this position the disk 8 of the float closes the tube 1 at a point below the lateral perforations 10, so that if the bottle has been emptied of its original contents it cannot be refilled by pouring another liquid into the mouth of the bottle when the latter is vertical, or approximately so, because, as before stated, the disk 8 of the float closes the interior of the tube below the lateral perforations 10, and consequently no liquid can flow downward through the tube into the interior of the bottle. If the bottle containing the original contents is tilted, as in Fig. 4, the float moves outward on the stem, and is arrested by the outer or upper cross-bar 3, in which position the float offers no obstruction to the flow of liquid from the interior of the bottle through the lateral perforations and through the annular space between the tube and the bottle-mouth, as will be obvious.

The cylindrical tube is preferably fitted into the bottle-neck, so that a cork 11 can be inserted into the bottle-mouth above the



tube, for the purpose of closing the mouth of the bottle during transportation, storage, or for other purposes.

Having thus described my invention, what  
5 I claim is—

The combination with a bottle, of a cylindrical tube having a series of lateral perforations and fitted into the mouth of the bottle to provide an intervening, annular channel or space with which the perforations communicate, a lower cross-bar arranged in the tube below the perforations, a cross-bar arranged in the tube above the perforations, a pin having a head and slidable lengthwise in  
10 said cross-bars, a float mounted on the pin

between the cross-bars and comprising a disk which rests upon the lower cross-bar below the lateral perforations when the bottle is perpendicular, or approximately so, and a cross-strip at the upper end of the tube which  
20 constitutes a stop for the pin, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN C. WEITZEL.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.