

(No Model.)

F. G. NEUBERT.
INK RECEPTACLE.

No. 565,917.

Patented Aug. 18, 1896.

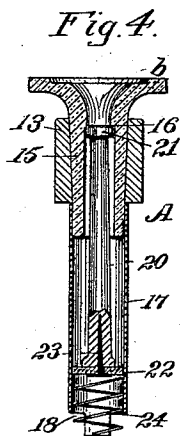
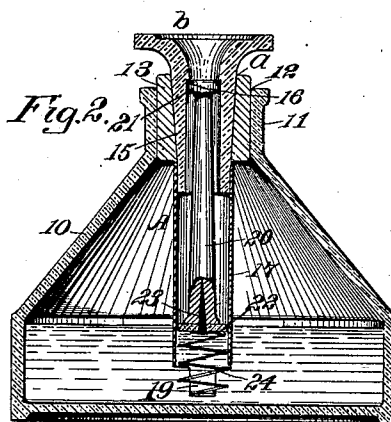
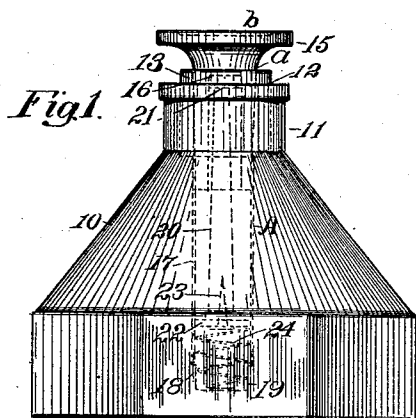


Fig. 8.



Fig. 3.

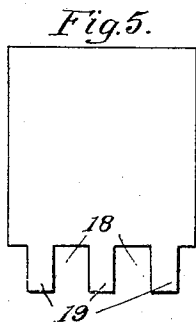
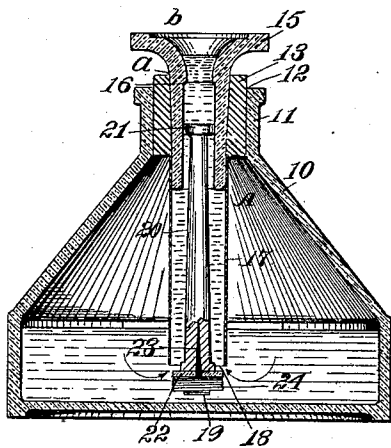
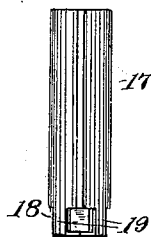


Fig. 6.



Fig. 7.



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UNITED STATES PATENT OFFICE.

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INK-RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 565,917, dated August 18, 1896.

Application filed September 5, 1895. Serial No. 561,539. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN G. NEUBERT, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Ink-Receptacles, of which the following is a specification.

This invention relates to ink-receptacles, and is more particularly in the nature of a fluid-supply attachment for ink-bottles, or reservoirs, or ink-wells; and the object of the invention is to provide an attachment for ordinary ink receptacles or reservoirs, or to provide an ink-receptacle embodying this attachment which is simple, inexpensive, and durable in construction.

A further object of the invention is to provide an improved ink or fluid receptacle, whereby the pen or other device will be automatically supplied with a certain amount of ink or fluid, and to further provide a receptacle which will prevent the evaporation of the fluid, and also the spilling of the same, should the receptacle be accidentally knocked over.

In the accompanying drawings, Figure 1 is a side view of one form of ink-receptacle embodying this improved attachment and showing a portion thereof in dotted lines. Fig. 2 is a vertical transverse section thereof, showing the piston-rod partly in elevation. Fig. 3 is likewise a vertical transverse section, similar to Fig. 2, but showing the piston in its operative working position depressing the spring. Fig. 4 is a partly-sectional view of this improved attachment removed from a receptacle. Fig. 5 shows a blank from which the piston-casing or hollow cylinder is formed. Fig. 6 is an end view of the casing or hollow cylinder. Fig. 7 is a detail view of the piston-casing or hollow cylinder, and Fig. 8 is a detail view of a modified form of spring for actuating the piston.

Similar characters designate like parts in all the figures of the drawings.

This fluid or ink supply device is adapted for attachment to ink bottles or reservoirs having the usual mouth adapted to receive a stopper, and the same can be attached to the bottles or reservoirs in ordinary use, if desired, and in connection with such ink bottle

or reservoir it forms an ink-receptacle, which, in the preferred form thereof herein shown and described, preferably consists of a bottle or reservoir 10 of any suitable or desired construction, having the usual neck 11 and mouth 12, adapted to receive a cork or stopper 13. This cork or stopper 13, however, has an aperture extending therethrough, and within this aperture a supplemental stopper 15, forming a part of this improved attachment, (designated in a general way by A,) is adapted to be seated. This supplemental stopper preferably comprises a tubular portion *a*, adapted to project through the aperture in the stopper 13, and preferably extends below the same to form a means for attaching the piston cylinder or casing hereinafter described, and a flaring upper portion or mouth *b*, which, adjacent to its junction with the tubular portion *a*, is preferably of less internal diameter than said tubular portion *a*, whereby an abutment or stop 16 is formed for the purpose hereinafter specified. It is obvious, however, that instead of having this supplemental stopper 15 project through a cork or ordinary stopper, the reservoir or bottle can be so constructed that the supplemental stopper will fit the mouth of the same without the use of the ordinary stopper, or the supplemental stopper can be made of different sizes to fit different sizes of mouths, but the preferable construction, however, is to use the ordinary stopper, whereby it is simply necessary to bore an aperture through the particular size of stopper adapted to fit the mouth of the reservoir and place the attachment therein. Removably secured to the lower tubular portion or end of this supplemental stopper by frictional engagement therewith, if desired, or by any other suitable means, is a hollow cylinder or piston-casing 17, having an opening or openings adjacent to or near its lower end. In the preferred form of construction of this casing or hollow cylinder the same is struck from a blank—such, for instance, as shown in Fig. 5—and the same formed into a tube or hollow cylinder 17, with the projections or ears 19, bent under in a similar manner, if desired, to that shown in Fig. 6, whereby the flanged portions of the bent arms form not only a means to permit the cylinder to rest upon the bottom of the bottle or reservoir,

but also a means for supporting the piston-actuating means, such as a spring. It is obvious, however, that the casing might be made in any other suitable way, such as by having the bottom formed in one piece, integrally connected with the tubular wall, and perforations extending therethrough adjacent to the bottom thereof.

A piston embodying a piston-rod 20 is adapted to work in the casing 17 and that portion of the supplemental stopper forming the tubular portion *a*, and in the preferred form thereof is provided with a flanged head 21, adapted to engage, when in its inoperative position, the abutment or stop 16 in the supplemental stopper and close the communicating opening between the tubular portion *a* and the flaring mouth *b* thereof. This head 21, however, loosely fits the tubular portion *a* of the stopper and is adapted to reciprocate therein, and whereby the fluid can penetrate around the same to supply the pen or other device inserted into the flaring mouth. The piston is also preferably provided adjacent to the lower end of the rod 20 with a piston-head 22, integral therewith, if desired, but it is herein shown as separate therefrom, and the same may be constructed of any suitable material, but is preferably constructed of leather and secured to the piston-rod by means of a brad 23, whereby it closely fits the interior of the casing.

In order to have the piston with its head 21 closely engaging the abutment or stop 16, and thereby tightly close the communicating opening between the tubular portion *a* and the flaring mouth *b* of the supplemental stopper 15, (see Fig. 2,) any suitable means—such, for instance, as a coiled spring 24 of any suitable construction—is disposed at any suitable place to actuate the piston, but is preferably disposed below the piston-head 22 and between the same and the bottom of the casing.

In the use of this improved ink or fluid receptacle, when it is desired to supply the pen or other device with ink or other fluid, the same is inserted into the flaring mouth *b* of the supplemental stopper 15 and the piston depressed against the pressure of its spring, whereby the ink or fluid will flow through the openings or perforations which are above the piston when it is depressed, and the action of said piston as it rises will force it up through the casing and into the flaring mouth *b* of the supplemental stopper 15 to supply the pen or other device with sufficient ink or fluid.

In practice the stopper is first seated in the mouth of the receptacle and when crowded down acts to compress the air in the same, after which when the piston is depressed the fluid flows through the perforations 18 past the same, as shown by arrows in Fig. 3, and when the piston is forced upward by means of its spring it carries with it sufficient fluid to supply the pen.

Should the device fail to operate satisfactorily at any time, the stopper or stoppers can

be forced down slightly, thereby further compressing the air and permitting the use of the device until the receptacle needs refilling.

By means of this ink-receptacle the pen or other device can be supplied at all times with sufficient ink or fluid for the purposes desired, and the supply so limited that the same will not get onto the fingers of the user. Moreover, this improved receptacle prevents the evaporation of the fluid contained therein, as the stopper is seated air-tight in the mouth of the reservoir and the piston is firmly pressed by means of its spring against the abutment 16, thereby closing the only remaining aperture. Furthermore, should the receptacle be accidentally knocked over the fluid will be prevented from spilling therefrom, owing to the piston being firmly seated against the stop or abutment 16.

Having thus described my invention, I claim—

1. An attachment for a fluid-receptacle, consisting of an apertured stopper adapted to rest in the mouth of a bottle or fluid-reservoir; a piston-casing at one end thereof having an opening therein adjacent to its lower end; a piston adapted to work in said casing; said piston having a stem adapted to close the stopper and means adjacent to the lower end of said piston for actuating said piston when operated out of its normal position.

2. An attachment for a fluid-receptacle, consisting of a longitudinally-apertured stopper adapted to rest in the mouth of a bottle or fluid-reservoir; a piston-casing removably secured to said stopper, and having perforations therein adjacent to its lower end; a piston adapted to work in said casing; and having a stem normally serving as a closure for the stopper and a spring adjacent to the lower end of said piston for actuating the same.

3. An attachment for a fluid-receptacle, consisting of a stopper adapted to rest in the mouth of a bottle or fluid-reservoir, and having an aperture extending therethrough of different diameters, whereby an abutment is formed therein; a piston-casing at one end of said stopper, and having perforations therein; and a piston adapted to work in said casing and provided with a stem working in that portion of the apertured stopper having the largest diameter, and adapted to normally engage said abutment and to serve as a closure for the stopper.

4. An attachment for a fluid-receptacle consisting of a longitudinally-apertured stopper adapted to rest in the mouth of a bottle or fluid-reservoir, and having different internal diameters, whereby an abutment is formed therein, and also having a flaring mouth; a cylindrical casing removably secured to one end of said stopper, and having openings therein adjacent to its lower end; a piston adapted to work in said casing and that portion of the stopper having the largest internal diameter and adapted to engage said abutment; and a spring seated between the bot-

tom of said casing and piston and adapted to hold said piston in engagement with said abutment, substantially as described.

5 In a fluid-receptacle, the combination with a fluid-reservoir having a mouth, of a stopper therein having an aperture extending therethrough; a supplemental apertured stopper seated in said apertured stopper, and having a casing at one end thereof having an opening therein; a piston adapted to work in said casing; and to serve as a closure for the stopper and means adjacent to the lower end of said piston for actuating said piston when operated out of its normal position.

15 6. In a fluid-receptacle, the combination with a fluid-reservoir, of a stopper therein having an aperture extending therethrough, and having a piston-casing at one end thereof having an opening therein; a piston adapted to work in said casing; and having a solid stem with a flanged head at its upper end and means adjacent to the lower end of said piston for actuating said piston when operated out of its normal position.

25 7. In a fluid-receptacle, the combination with a fluid-reservoir having a mouth, of a stopper therein having an aperture extending therethrough; a supplemental stopper seated in said apertured stopper, and having also an aperture extending therethrough; a piston-casing removably secured to said supplemental stopper, and having perforations therein adjacent to its lower end; a piston adapted to work in said casing and apertured supplemental stopper; and a spring seated between the lower end of said piston and the bottom of the casing for actuating the said piston.

40 8. In a fluid-receptacle, the combination with a fluid-reservoir having a mouth; of a stopper seated therein having an aperture extending therethrough; a tubular supplemental stopper adapted to project through said stopper, and having different internal diameters whereby an abutment is formed

therein and also having a flaring mouth in communication with the tubular portion of said stopper; a cylindrical piston-casing removably secured to the lower end of said tubular supplemental stopper and having perforations therein adjacent to its lower end; a piston adapted to work in said casing and in that portion of the supplemental stopper having the largest internal diameter, and having a head adapted to engage said abutment and close the communicating opening between said tubular portion and flaring mouth; and a spring seated between said piston and the bottom of the casing, whereby said piston is normally held in engagement with said abutment, substantially as described.

9. A fluid-receptacle consisting of a fluid-reservoir having a mouth; a stopper therein having an aperture extending therethrough; a supplemental apertured stopper seated in said apertured stopper, and having different internal diameters whereby a stop is formed therein; a piston-casing removably secured to the lower end of said supplemental stopper and having perforations therein adjacent to its lower end; and a spring-actuated piston adapted to work in said casing and in that portion of the supplemental stopper having the largest internal diameter and adapted to normally engage said stop, substantially as described.

10. An attachment for a fluid-receptacle, consisting of an apertured stopper adapted to rest in the mouth of a bottle or fluid-reservoir; a piston-casing having one of its ends engaging said stopper, and having openings at its other end formed by projecting ears having the ends thereof bent inwardly at right angles to the walls of said casing; and a piston adapted to work in said casing.

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