

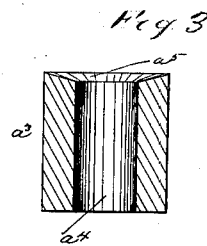
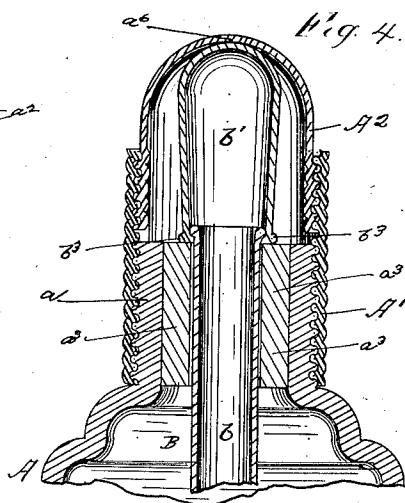
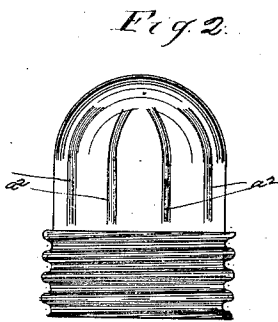
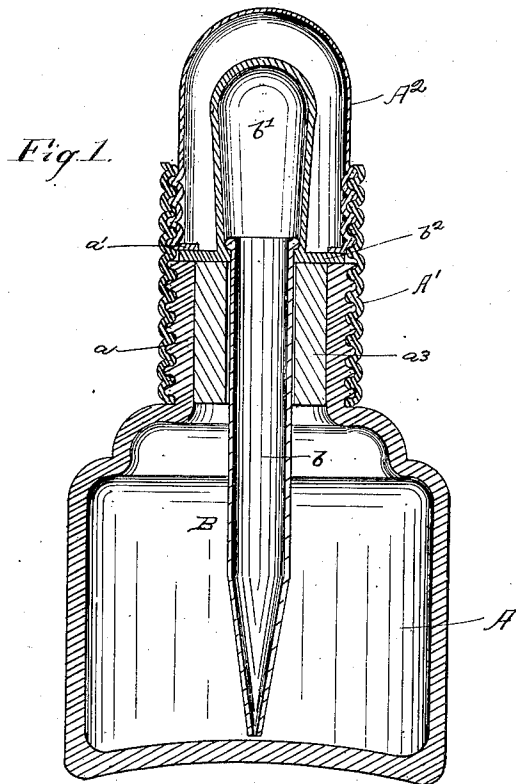
(No Model.)

2 Sheets—Sheet 1.

W. RODIGER.
FOUNTAIN PEN FILLER.

No. 463,215.

Patented Nov. 17, 1891.



Witnesses:
Chas. G. Page

Inventor:
William Rodiger
By Harry C. Kennedy,
his attorney.

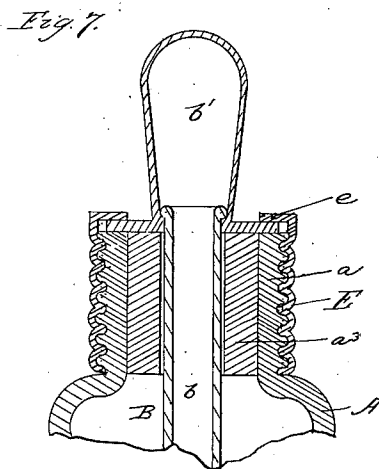
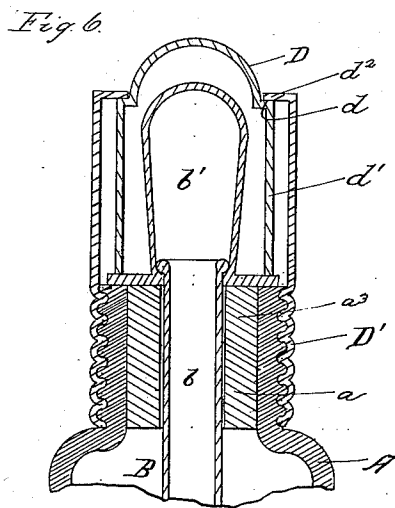
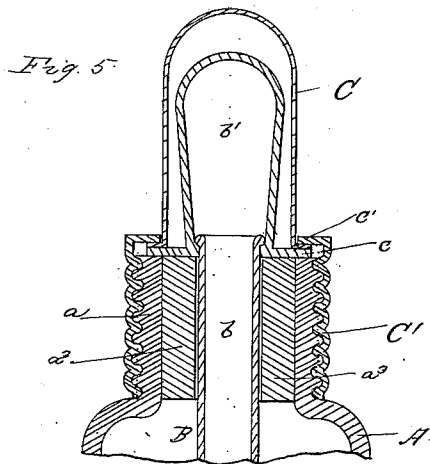
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2 Sheets—Sheet 2.

W. RODIGER.
FOUNTAIN PEN FILLER.

No. 463,215.

Patented Nov. 17, 1891.



Witnesses:
R. Wagner
Chas. G. Page

Inventor,
William Rodiger
By Harry C. Kennedy.
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UNITED STATES PATENT OFFICE.

WILLIAM RODIGER, OF CHICAGO, ILLINOIS.

FOUNTAIN-PEN FILLER.

SPECIFICATION forming part of Letters Patent No. 463,215, dated November 17, 1891.

Application filed November 25, 1890. Serial No 372,599. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RODIGER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in a Combined Ink-Bottle and Filler for Fountain-Pens, of which the following, in connection with the accompanying drawings, is a specification.

My invention relates to a novel construction in a combined ink-bottle and filler for fountain-pens, a medicine bottle and dropper, or other analogous article, the object being to provide a device of this character comprising a minimum number of parts of simple, durable, and economical construction.

The invention consists in the features of construction and combinations of parts hereinafter fully described, and pointed out in the appended claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a central vertical sectional view of an ink bottle and filler constructed in accordance with my invention. Fig. 2 is a detail view of a cap forming a part of my invention. Fig. 3 is a detail view of a stopper involving a modified form of construction embodying my invention. Figs. 4, 5, 6, and 7 illustrate modified forms of construction embodying my invention.

The invention is primarily intended for use and will be described as a combined ink-bottle and fountain-pen filler; but it will be understood that it can be used for other purposes—for instance, as a medicine bottle and dropper.

Referring to Fig. 1 of said drawings, A indicates a bottle of ordinary construction and provided with an externally-screw-threaded neck *a*. A' indicates an internally-screw-threaded sleeve, which is adapted to screw upon the neck *a*, and is formed so that it will project some distance above the upper end of the neck when screwed thereon. A² indicates a cap, whose lower portion is externally screw-threaded and is adapted to fit into the upper screw-threaded portion of the sleeve A'. B indicates a pen-filler comprising a tube *b* and bulb *b'*. The bulb *b'*, however, is provided at its lower end with an outwardly-extending flange *b*², which is large enough to rest upon the upper end of the neck *a* of the

bottle when the filler is inserted therein. The cap A² is high enough to stand clear of the bulb *b'* when the filler is in the bottle and the cap is in place. It will thus be seen that when the filler is placed in the bottle and the cap is screwed in place the lower edge of said cap will impinge upon the flange *b*² of the bulb, and said flange will be compressed between said lower edge of the cap and the upper edge of the neck of the bottle, and will thus serve to seal said bottle hermetically.

In the particular construction illustrated the cap A² is provided at its lower end with an inwardly-projecting flange *a'*, whose inner edge is located about over the inner edge of the upper end of said neck. By this arrangement it will be seen that the flange *b*² is held between the two flat surfaces formed by the flange *a'* and the end of the neck of the bottle. The cap A² is ribbed or corrugated above its screw-threaded portion, as shown at *a*² in Fig. 2, which affords a convenient device for screwing and unscrewing the same.

In the construction illustrated a stopper *a*³ is arranged within the neck of the bottle, which stopper is provided with an aperture *a*⁴ for the passage of the tube of the filler. It is found preferable to arrange a stopper as described and shown, as it serves to hold the tube of the filler centrally within the bottle and prevents any lateral movement on the part of the same. It will be understood, however, that except in the claims for the specific construction I contemplate using or not using the stopper, as found most convenient, it being obvious that the filler will be held securely in place without the use of said stopper.

A very important and marked feature of improvement in the device above described involves the sleeve A', which is located upon and secured to the neck of the bottle and extends above the upper end of said neck a convenient distance. It is found by experience that when the filler is removed for use, even with great care, it is difficult to prevent the ink in the filler adhering to the sides thereof from dropping therefrom during the act of removal. In the absence of said uprising and surrounding sleeve the ink that may drop would run down the outside of the neck and body portion of the bottle, and would in course of time soil the bottle and make it un-

desirable to handle, owing to the liability of soiling the hands of the user. This is obviated by the presence of said uprising neck, as it will be plainly obvious that any ink dropping from the filler will fall within said sleeve and will not come in contact with and soil the outside of the bottle.

In Fig. 3 is shown a modified form of construction. In this figure the stopper a^3 is shown in detail, and is provided with an inclined or sloping top or upper face a^5 , which is inclined from the outer edge of the stopper inwardly toward the aperture a^4 . By means of this sloping top any ink that may be spilled upon the stopper will run down and pass through the aperture into the bottle.

In Fig. 4 is shown a modified form of construction embodying my invention. In this construction the compression of a flange forming a part of the bulb is not relied upon to seal the bottle hermetically; but the rounded top portion a^6 of the cap A^2 is adapted to engage the upper end of the bulb, and by reason of the pressure exerted thereon, consequent upon the screwing down of said cap, the lower portion of the bulb is held tight against the stopper and thereby seals the bottle. It is found sufficient in this construction to have the bulb provided with the ordinary head b^3 instead of the flange b^2 .

In Fig. 5 is shown another modification embodying my invention. In this construction the cap C rests at its lower edge upon the flange of the filler, and is also provided at or near its lower edge with an outwardly-projecting flange c . The sleeve C' is provided at or near its upper end with an inwardly-projecting flange c' , whose internal diameter is large enough to permit the cap to pass therethrough. The sleeve C' is screw-threaded at its lower end to engage the neck a , and by screwing said sleeve upon the neck the flange c' presses upon flange c of the cap and compresses the flange b^2 against the upper edge of the neck of the bottle, thereby sealing the same. It is obvious that the flanges c and c' need not be continuous annular flanges; but one or the other can be cut away or be in section, as found convenient.

In Fig. 6 is shown another modified form of construction embodying my invention. In this construction the cap D is provided with a shoulder or ledge d , which is shown near its upper end, but which can be arranged lower down, if desirable. The downwardly-extending portion d' of the cap rests at its lower edge against the flange b^2 . The sleeve D' , which engages the neck of the bottle, is provided with an inwardly-projecting flange d^2 , which is adapted to engage said ledge d , so that when the said sleeve is screwed upon the neck of the bottle said flange will serve to press the cap D downwardly, and the lower edge thereof being in engagement with the flange b^2 of the filler will make a hermetic joint with the bottle.

In Fig. 7 is shown another modified form

of construction embodying my invention. In this construction the sleeve which screws onto the neck of the bottle is provided with an inwardly-projecting flange e , which is adapted to engage the flange b^2 of the filler. The internal diameter of said flange e is large enough to pass over the bulb of the filler. It will be seen that in this construction the said bulb b^2 is exposed. For office use and where the bottle is not subject to rough and careless handling this will suffice. The bulb can, however, be made of thick or tough material, so that it will be less liable to be injured.

It is obvious that various mechanical expedients can be employed in substitution of certain unessential features herein shown and described—such as, for instance, the screw-threaded parts herein described. In place of these any other devices can be used for connecting the parts together.

I claim as my invention—

1. The combination, substantially as herebefore set forth, of a bottle, a pen-filler or medicine-dropper located therein and supported from the neck thereof, an uprising sleeve engaging said bottle, and a cap engaging said sleeve and the bulb of said pen-filler or medicine-dropper.

2. The combination, substantially as herebefore set forth, of a bottle, a pen-filler or medicine-dropper located therein and supported from the neck thereof, a sleeve engaging said neck and extending above the same, and a cap engaging said sleeve and the bulb of said pen-filler or medicine-dropper.

3. The combination, substantially as herebefore set forth, of a bottle having an apertured stopper in the mouth thereof, a pen-filler or medicine-dropper supported from the neck of the bottle and having its tube passing through the apertured stopper, a sleeve engaging the neck of the bottle and extending above the same, and a cap engaging said sleeve and the bulb of said pen-filler or medicine-dropper.

4. The combination, substantially as herebefore set forth, of a bottle having an apertured stopper in the mouth thereof, a pen-filler or medicine-dropper having its bulb resting in contact with said stopper and its tube passing through the aperture therein, and a sleeve engaging said bottle and said bulb.

5. The combination, substantially as herebefore set forth, of a bottle having an apertured stopper in the mouth thereof, a pen-filler or medicine-dropper having its bulb resting in contact with said stopper and its tube passing through the aperture therein, a sleeve engaging said bottle, and a cap engaging said sleeve and the said bulb.

6. The combination, substantially as herebefore set forth, of a bottle, a stopper in the mouth thereof having an aperture and an upper face sloping toward said aperture, a pen-filler or medicine-dropper having its bulb resting in contact with said stopper and its

tube passing through the aperture therein, a sleeve engaging the neck of the bottle and extending above the same, and a cap engaging said sleeve and the bulb of said pen-filler or medicine-dropper.

7. The combination, substantially as here-
inbefore set forth, of a bottle, a pen-filler or
medicine-dropper supported from the neck of
said bottle and having a flange on the lower
portion of its bulb, an uprising sleeve engag-
ing said bottle, and a cap engaging said sleeve
and the said flange.

8. The combination, substantially as here-
inbefore set forth, of a bottle, a pen-filler or
medicine-dropper supported from the neck of
said bottle and having a flange on the lower
portion of its bulb, an uprising sleeve engag-
ing said bottle, and a cap located within said
sleeve and having screw-threaded engage-
ment with the same and adapted to screw
down upon the said flange.

9. The combination, substantially as here-
inbefore set forth, of a bottle, a pen-filler or
medicine-dropper supported from the neck of
said bottle and having a flange on the lower
portion of its bulb, an uprising sleeve engag-
ing said bottle, and a cap engaging said
sleeve and provided with a flange adapted to
engage the flange of said filler.

10. The combination, substantially as here-
inbefore set forth, of a bottle, a pen-filler or
medicine-dropper supported from the neck of
said bottle and having a flange on the lower
portion of its bulb, an uprising sleeve engag-

ing said bottle, and a cap engaging said sleeve
and provided with an inwardly-projecting
flange adapted to engage the flange of said
filler.

11. The combination, substantially as here-
inbefore set forth, of a bottle, a pen-filler or
medicine-dropper supported from the neck of
said bottle and having a flange on the lower
portion of its bulb, an uprising sleeve engag-
ing said neck, and a sheet-metal cap fitting
within the upper portion of said sleeve and
having screw-threaded engagement therewith
and provided at its lower end portion with
an inwardly-projecting flange.

12. The combination, substantially as here-
inbefore set forth, of a bottle, a sheet-metal
uprising sleeve secured to and surrounding
the neck of said bottle, a pen-filler or medi-
cine-dropper supported from said neck and
having a flange on the lower portion of its
bulb, and a sheet-metal cap adapted to fit
within said sleeve and having screw-threaded
engagement therewith, the lower end of said
cap being adapted to engage the said flange.

13. The combination, substantially as here-
inbefore set forth, of a bottle, a pen-filler or
medicine-dropper, and a cap engaging said
bottle and said pen-filler or medicine-dropper,
said cap having its upper portion corrugated.

WILLIAM RODIGER.

Witnesses:

HARRY COBB KENNEDY,
R. WAGNER.