

July 28, 1931.

P. C. P. BOOTY

1,816,141

CONTAINER

Filed April 12, 1928

Fig. 1.

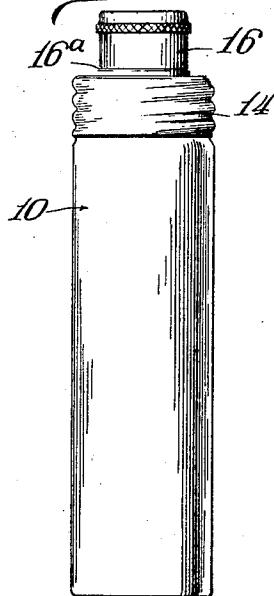


Fig. 2.

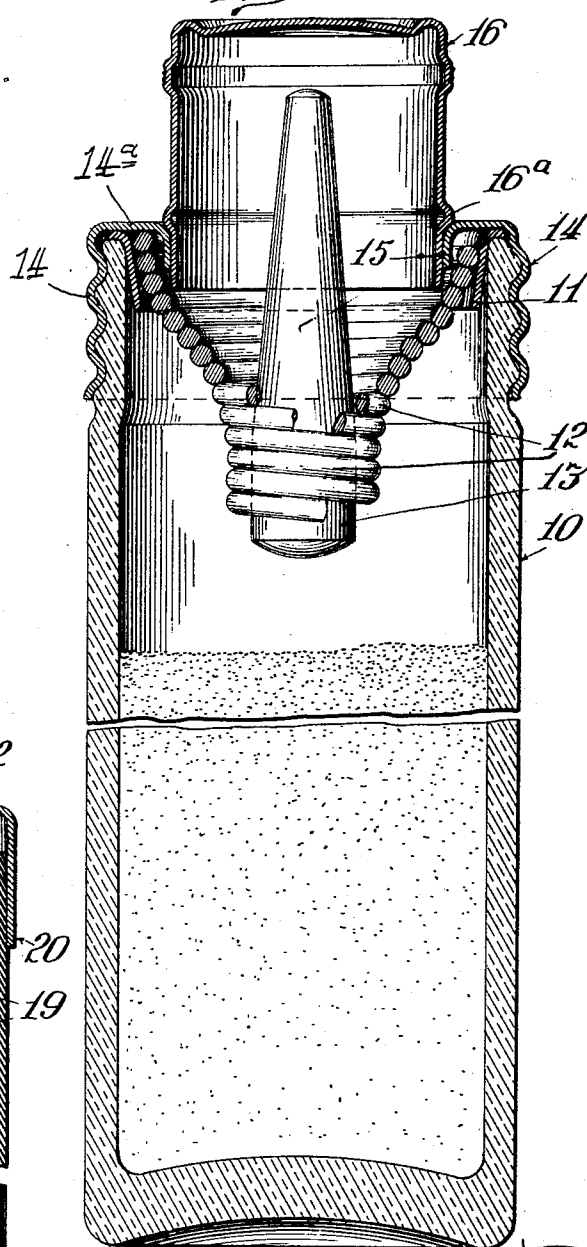
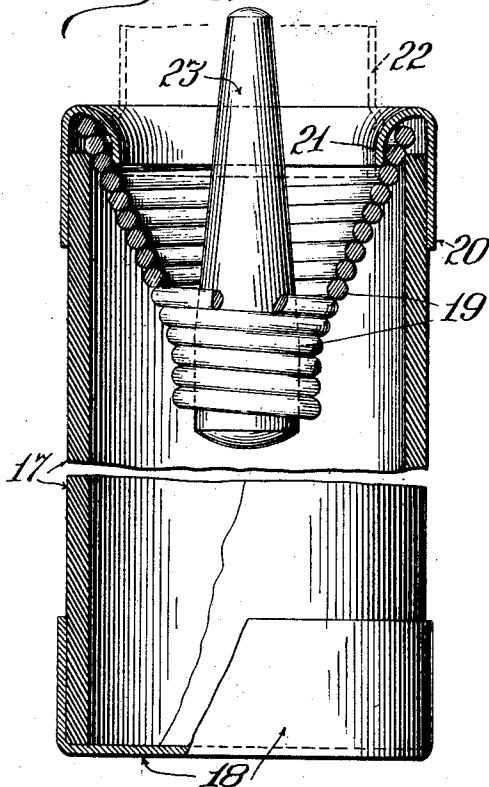


Fig. 3.



Inventor,-

Philip C. P. Booty,
By Fricks & DeBusk,
Attorneys

UNITED STATES PATENT OFFICE

PHILIP C. P. BOOTY, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO MICHAEL T. DALEY, OF CHICAGO, ILLINOIS

CONTAINER

Application filed April 12, 1928. Serial No. 269,403.

My invention relates to containers of a type designed for holding its contents in powder or liquid form and dispensing such contents in small quantities. Containers of this general type are shown and claimed in prior Letters Patent to me, No. 1,628,106, granted May 10, 1927, and No. 1,642,868, granted September 20, 1927.

It is one of the objects of my invention to provide a new combination of parts by which the improved closure means as disclosed and claimed by said Letters Patent can be assembled and secured in position on a casing with utmost ease, by the use of which such a container having a neat and attractive form can be produced at an extremely low cost so as to be available for use as sales containers for small supplies of face powder or the like, and by which when desirable provision may be made for very easy and ready refilling. To these ends, it is one of the objects of my invention to provide novel means for holding the coil constituting one of the elements of my improved closure means in operative position on the body of the container, such means being preferably arranged for automatically centering the coil by the operation of positioning the retaining means upon the body of the casing of the container.

It is another object of my invention to improve devices of this type in sundry details hereinafter pointed out. The preferred means by which I have accomplished my several objects are illustrated in the drawings and are hereinafter specifically described. That which I believe to be new and desire to cover by this application is set forth in the claims.

In the drawings,—

Fig. 1 is a side view of my improved container, being preferably of a size suitable for being carried conveniently in a lady's hand bag or purse;

Fig. 2 is a central vertical section through the upper end portion of the container shown in Fig. 1, being shown upon a very much enlarged scale; and

Fig. 3 is a view similar to Fig. 2 but showing a modified form of construction, and showing also the lower end portion of the con-

tainer, the protective cap of the device being indicated by dotted lines.

Referring now to Figs. 1 and 2,—10 indicates a casing formed preferably of glass, the form shown having a straight tubular body portion closed at the lower end. The body 10, in the form shown in Fig. 2, comprises a liner 11 in the form of a ring of light sheet metal flared outwardly at its upper end so as to rest upon the upper edge of the main portion 10 of the casing, with its lower end portion extending downwardly on the inner face thereof. In the upper end of the ring 11, I provide a closure coil of the type shown in my prior patents above referred to, such coil in the form illustrated comprising a volute coiled spring 12. At its lower end, the spring 12 is provided with a pin 13 which is secured in any suitable manner therein so as to serve as an effective closure for the lower end portion of the coil, the pin being preferably held in position by frictional engagement with the lowermost ply or plies of the coil. The coil 12 is held in position by means of a ferrule 14 which is secured in position upon the upper end of the body of the casing, being provided with an inwardly turned flange portion 14a which applies downward pressure upon the upper end of the coil when the ferrule is moved downwardly upon the body 10. In the construction shown in Fig. 2, the ferrule 14 is held adjustably in position upon the body 10 by means of screw threads. The ferrule as shown in Fig. 2 also comprises a downwardly directed flange 15 which fits loosely within the upper end of the coil for assisting in holding the coil in operative closing relationship.

With the device arranged as shown in said Fig. 2 and as above described, the liner or ring 11 serves to provide a suitable bearing for the coil upon the casing, the liner being made of sufficiently yielding form to enable it to function more or less completely as a gasket for taking care of any possible unevenness in the upper edge of the glass portion of the body. In the operation of assembling the device, the liner 11 is placed loosely in position in the upper end of the glass portion of the body; the coil 12 is then inserted

loosely in position within the liner; the ferrule 14 is then screwed into position, serving to bring the more or less yielding liner 11 and the yielding coil 12 to the desired centered cooperating position in which the parts are adapted effectively to close the upper end of the casing.

In the use of the device, the casing is to be inverted, whereupon a slight upward pressure upon the pin 13 serves to permit a small quantity of the powder or liquid contents of the container to escape between the plies of the coil. When the pressure upon the pin is relieved, the parts automatically return to effective closing position, all as is explained in my aforesaid prior patents. In order to prevent accidental discharge from the container when it is being carried with other objects in a bag or purse, I have provided a cap 16 of any approved type adapted to surround the upper end of the pin 13, being held in position preferably by frictional engagement with the flange 15 of the ferrule 14, the downward movement of the cap 16 within the flange being limited by the provision of the bead 16a.

Whenever it is desired to refill the container, this can be accomplished very readily and very quickly by the removal of the ferrule 14 and the coil 12, such parts being again very quickly and easily replaced in operative position in the manner above described.

In the form of device as shown in Fig. 3, I provide a body portion 17 made of paper or other comparatively yielding material in the form of a cylinder, the lower end of the body being closed by means of a cap 18 of any suitable type secured in position in any suitable manner,—as by an adhesive. By reason of the comparative softness of the material making up the body 17, satisfactory results have been obtained without the use of a liner, a coil 19 of the type above described being placed in position directly in the upper end of the cylindrical body portion 17. In the construction shown in Fig. 3, the coil 19 is held in position by means of a ferrule 20 held in position upon the cylindrical portion 17 by means of a suitable adhesive, or in any other suitable manner as may be desired, the ferrule 20 being pressed downwardly in its application so as to bring the downwardly extending flange portion 21 into operative engagement with the upper end portion of the coil 19. A cap 22 of the same type as that above described in connection with the form shown in Fig. 2 may be employed if desired for surrounding and protecting the pin 23 carried by the coil 19. I have found in practice that the construction shown in Fig. 3 is effective, serving to hold the contents of the container very satisfactorily.

By the use of the constructions as shown in the drawings, and particularly that shown in Fig. 3, a very inexpensive container is

provided which operates very satisfactorily for holding its contents and for dispensing the same in small quantities as desired.

While I prefer to employ the form of device as shown in the drawings, it will be understood that I do not limit the invention to the details of the construction as illustrated except so far as the claims may be so limited by the prior art.

I claim:—

1. In a container, the combination of a casing member having an opening therinto and comprising a liner in the form of a ring fitted in said opening, a coil serving as a closure member and having a tapered upper end portion fitted loosely in said ring, and a ferrule extending about said coil and having an inwardly extending flange portion pressing downwardly on the upper end of the coil and ring adapted by such downward pressure to hold the coil and the ring in effective closing position.

2. A container comprising in combination a casing member having an opening therinto, a coil serving as a closure member having a tapered upper end portion fitted loosely in said opening and provided with a pin projecting upwardly through the coil for separating the plies of the coil, a ferrule secured on said casing about the coil and having a flange portion bearing on the upper end of the coil adapted by downward pressure on the coil to hold it in effective closing engagement with the casing, and a cap surrounding said pin and held in operative position by frictional engagement with said ferrule.

3. A container comprising in combination a casing member having an opening therinto, a coil serving as a closure member and having an outwardly-extending upper end portion bearing on the casing about said opening, a ferrule secured to the casing and extending about said coil, and a downwardly turned flange portion on said ferrule extending downwardly within the upper end of the coil serving to press said upper end down tightly on the casing for holding the coil in effective closing engagement with the casing.

4. A container comprising in combination a casing member having an opening therinto, a coil serving as a closure member having a tapered upper end portion fitted loosely in said opening and provided with a pin projecting upwardly through the coil for separating the plies of the coil, a ferrule secured on said casing about the coil and having a flange portion turned downwardly within the tapered upper end of the coil adapted by downward pressure on the coil to hold it in effective closing engagement with the casing, and a cap surrounding said pin and held in operative

position by frictional engagement with said ferrule.

5 5. A container comprising in combination a casing member having an opening there-
into, a coil serving as a closure member for
said opening and having an outwardly flar-
ing upper end portion supported by the up-
per end portion of the casing, and a ferrule
10 extending about the upper end portions of
the casing and the coil and having an in-
wardly extending portion bearing on the
coil, said casing and ferrule being provided
with means for tightening the ferrule down-
wardly on the coil for holding the coil in
15 effective closing engagement with the casing.

6. A container comprising in combination
a casing member having an opening there-
into, a coil serving as a closure member for
said opening and having an outwardly flar-
20 ing upper end portion supported by the up-
per end portion of the casing, and a ferrule
extending about the upper end portions of
the casing and the coil and having an in-
wardly extending portion bearing on the coil,
25 said casing and ferrule being provided with
cooperating screw threads for tightening the
ferrule downwardly on the coil.

7. A container comprising in combination
a casing member having an opening there-
30 into, a coil serving as a closure member for
said opening and having an upwardly flar-
ing upper end portion supported by the up-
per end portion of the casing and having at
its lower end a substantially cylindrical por-
35 tion, a pin fitted tightly in said cylindrical
portion of the coil so as to be gripped there-
by, and a ferrule extending about said coil
and having an inwardly extending flange
portion pressing downwardly on the coil
40 serving to hold the coil in effective closing
position.

PHILIP C. P. BOOTY.

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