

No. 882,546.

PATENTED MAR. 17, 1908.

E. D. CHELLIS.  
CLOSURE FOR CONTAINING VESSELS.

APPLICATION FILED AUG. 11, 1906.

Fig. 1.

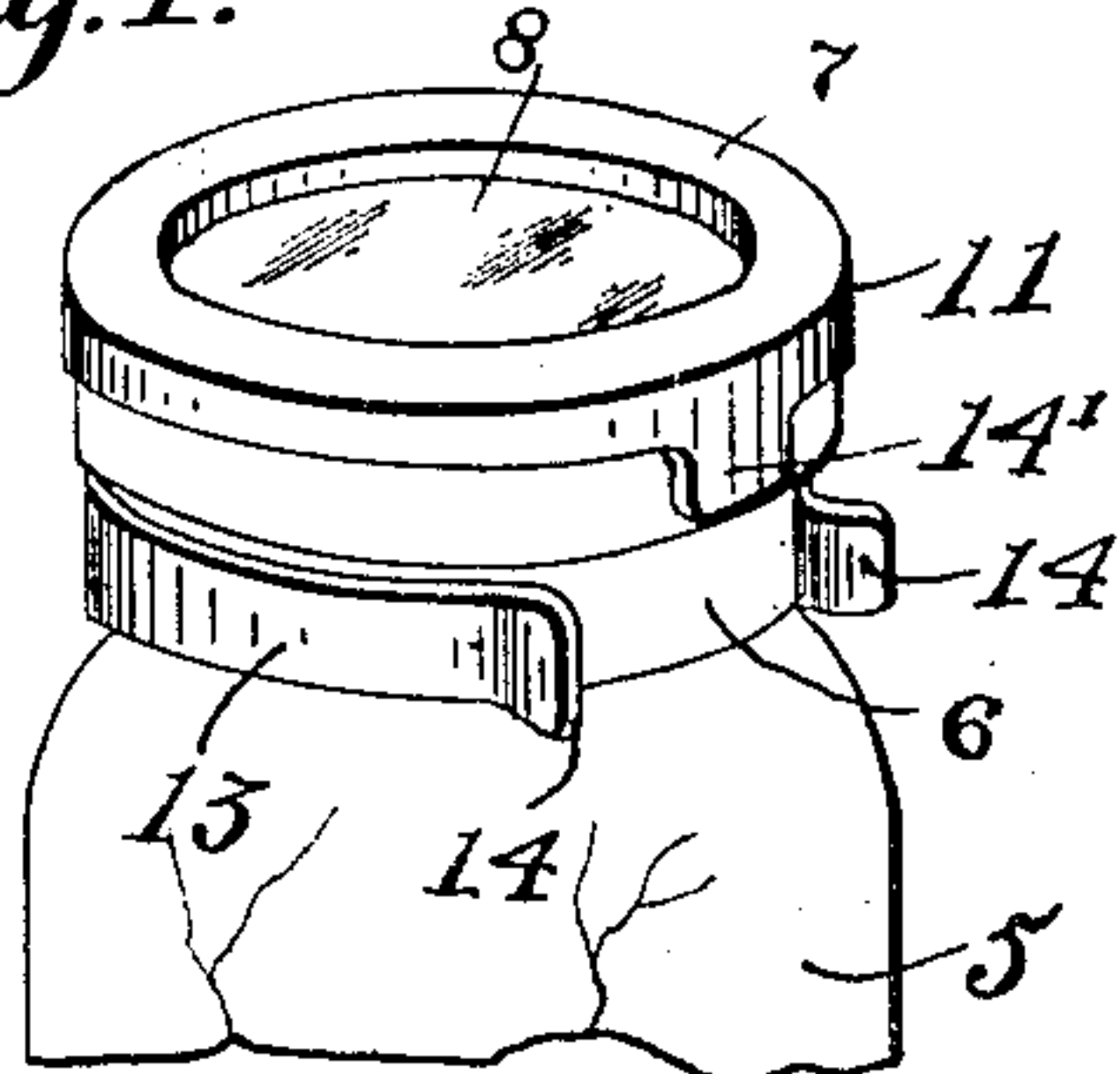


Fig. 3.

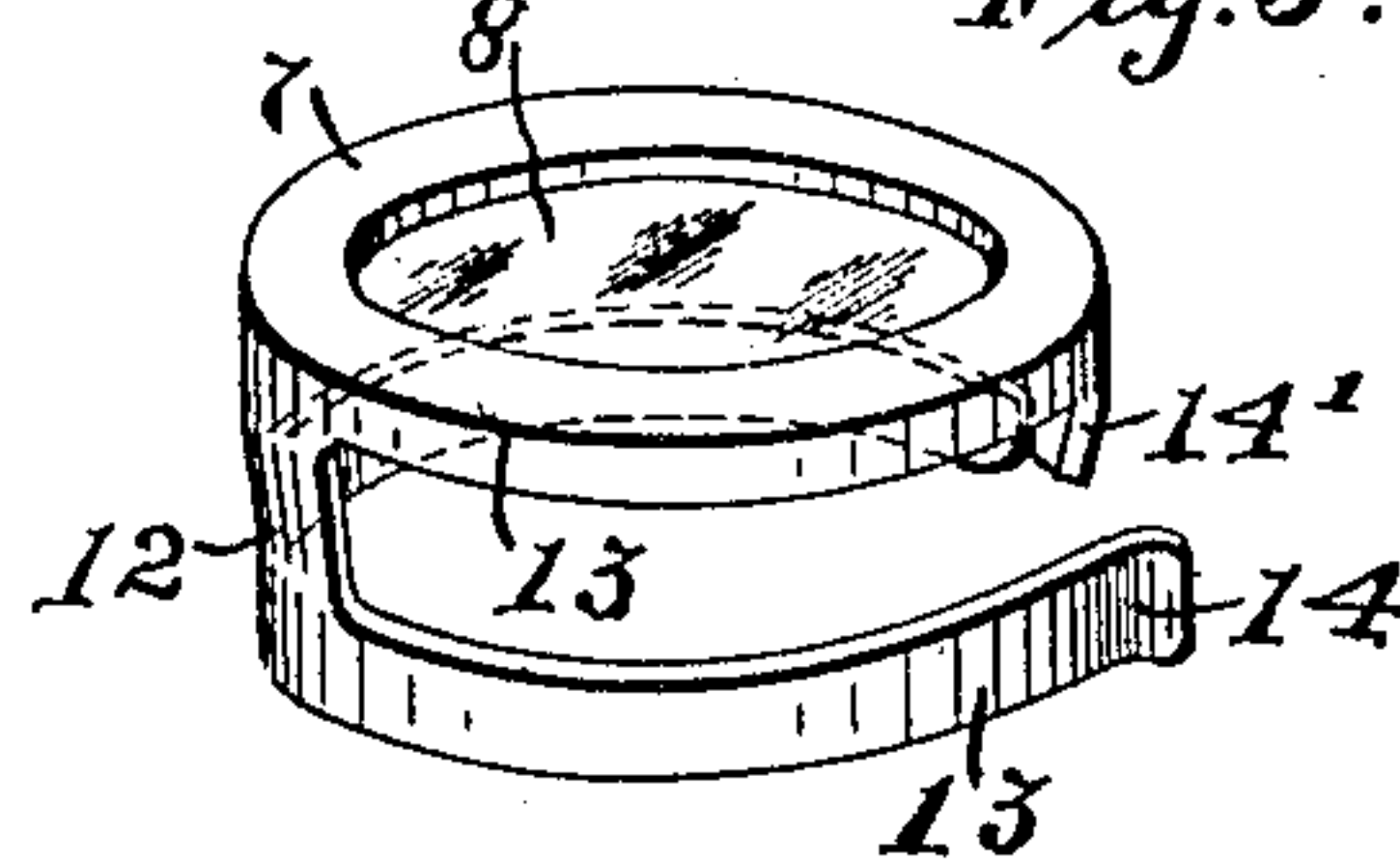


Fig. 2.

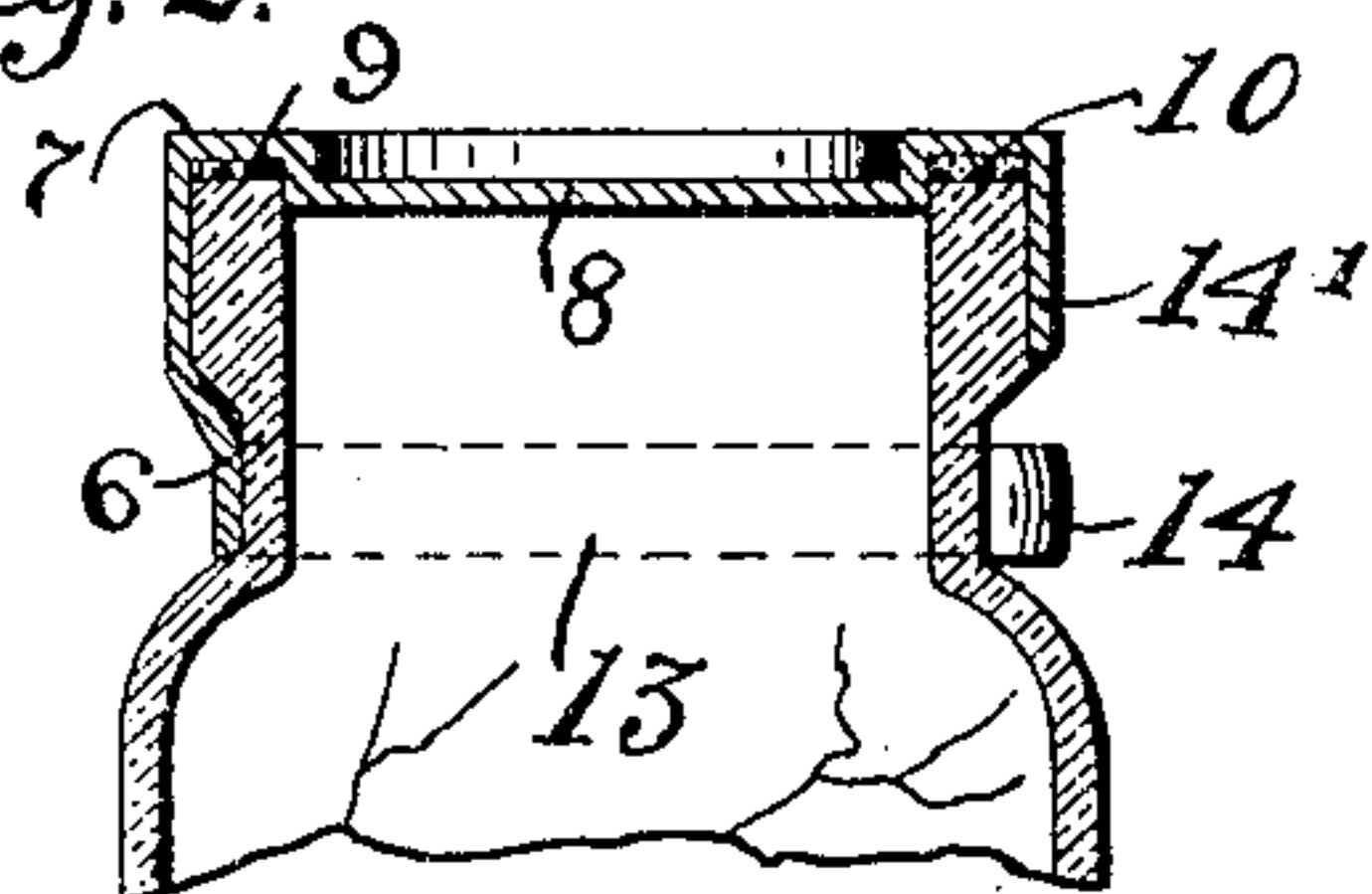


Fig. 4.

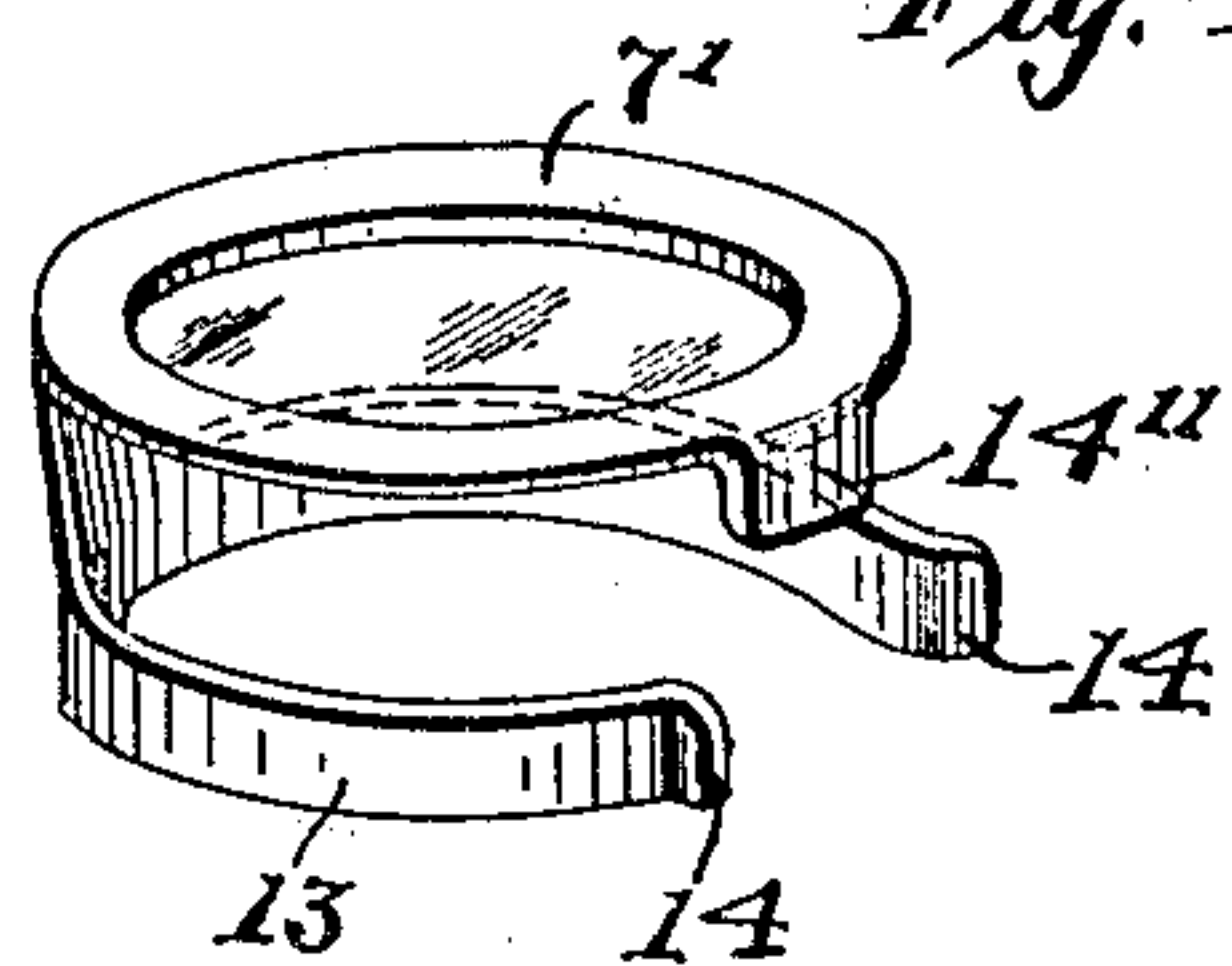


Fig. 5.

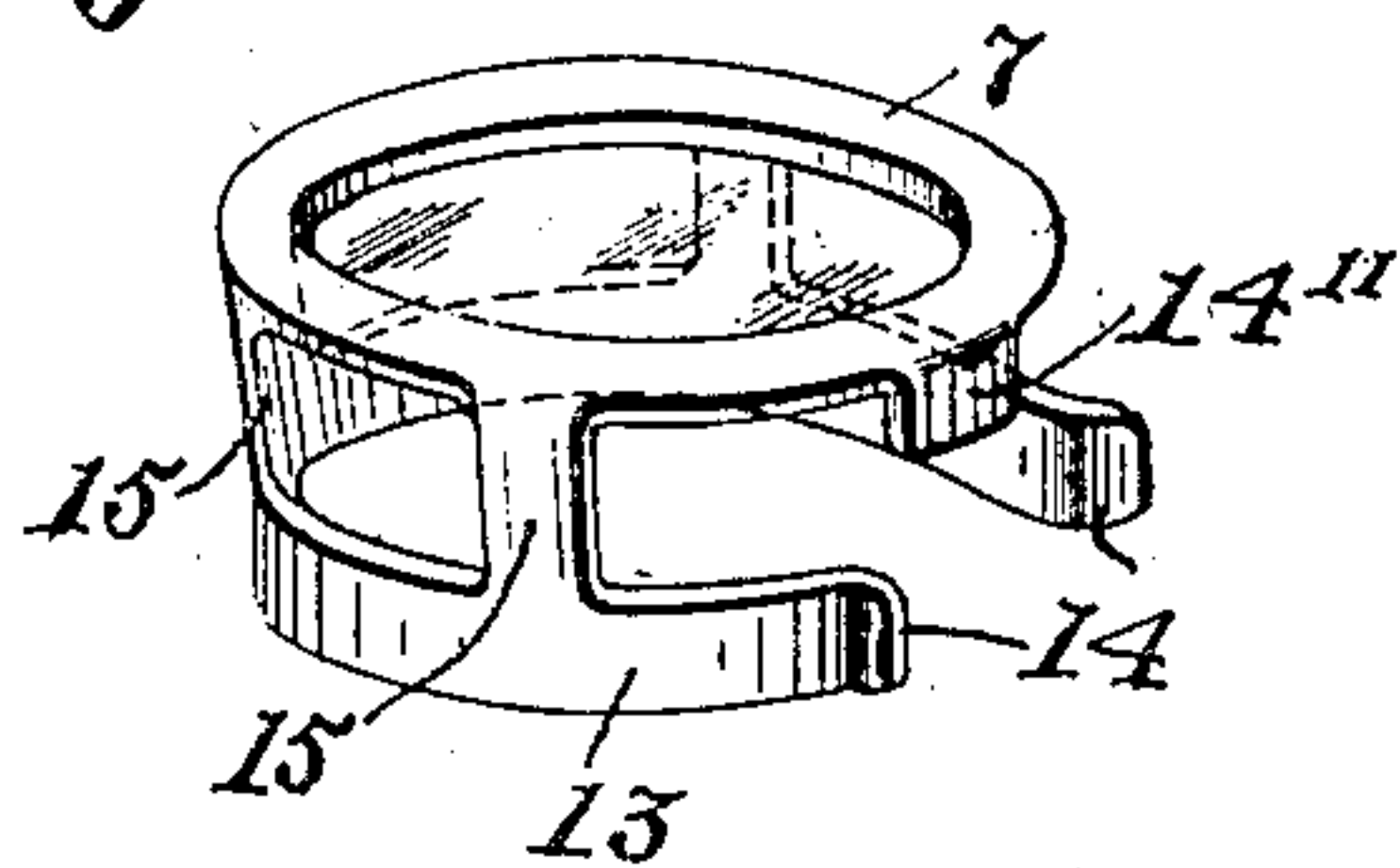


Fig. 6.

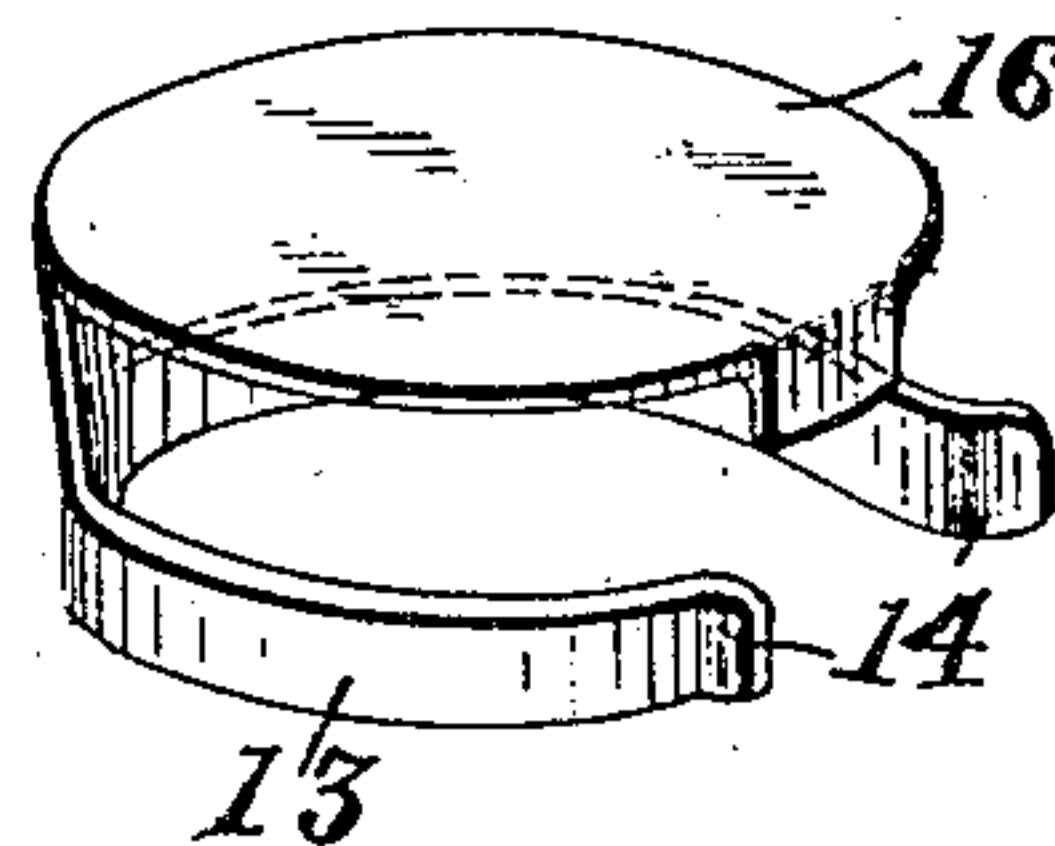
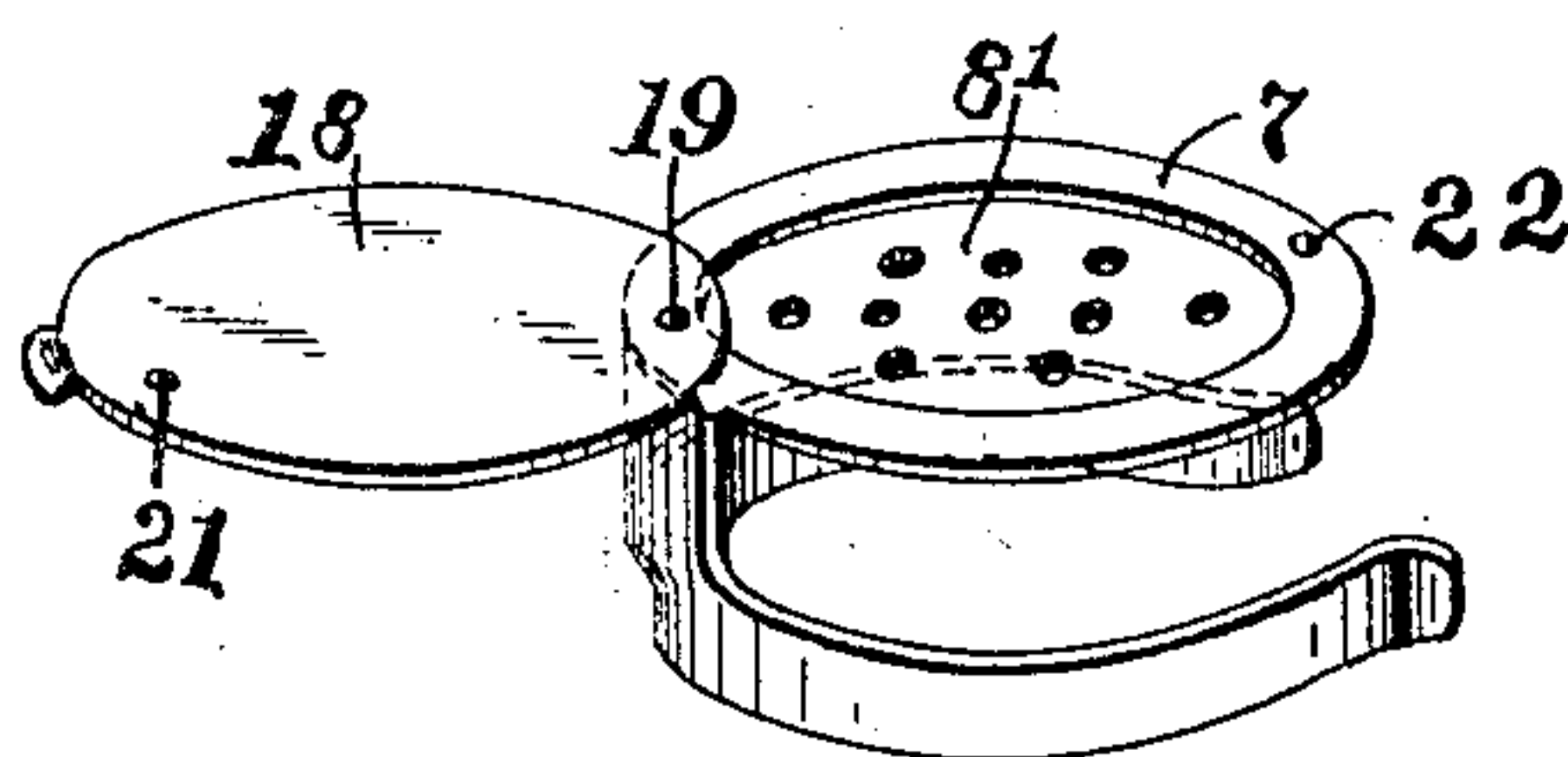


Fig. 7.



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# UNITED STATES PATENT OFFICE.

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## CLOSURE FOR CONTAINING VESSELS.

No. 882,546.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed August 11, 1906. Serial No. 330,217.

*To all whom it may concern:*

Be it known that I, EUGENE D. CHELLIS, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented a new and useful Closure for Containing Vessels, of which the following is a specification.

This invention relates to caps or closures for bottles, jars and other liquid containing vessels, and has for its object the provision of a comparatively simple, and inexpensive device of this character capable of being quickly attached to or removed from the bottle and designed to form an air tight closure for the same.

A further object of the invention is to provide a metallic cap having a pair of spring clamping arms adapted to embrace the neck of the bottle and provided with a depending locking lip.

A further object is to form the upper surface of the cap or closure with a depression defining an annular groove or recess adapted to receive a packing-strip, said depression serving to center the cap upon the neck of the bottle.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a perspective view of a cap or closure constructed in accordance with my invention showing the same in position on the bottle or vial. Fig. 2 is a longitudinal sectional view. Fig. 3 is a perspective view of the cap or closure detached. Fig. 4 is a similar view illustrating a modified form of the invention. Fig. 5 is a perspective view illustrating a further modification. Fig. 6 is a similar view of another form of cap or closure. Fig. 7 is a perspective view of a further modification used for dispensing powdered or granular material.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved cap or closure is principally designed for use on bottles, jars, vials and other containing vessels and by way of illustration is shown applied to a vial or bottle of the ordinary construction in which 5 designates the body of the bottle and 6 the reduced neck thereof.

The cap or closure is preferably stamped or otherwise formed of a single piece of metal and consists of a plate or cover 7 having a central depression 8 formed in its upper surface and defining an annular seating groove 9 adapted to receive the neck of the bottle as shown, there being a strip of cork, rubber or other suitable material 10 seated within the groove 9 for engagement with the neck of the bottle thereby to form an air-tight closure for the same. The periphery of the plate or cover 6 is provided with a depending marginal flange 11 adapted to engage the exterior walls of the neck of the bottle and depending from the flange 11 at one side of the cover and preferably formed integral therewith is a connecting web 12 provided with a pair of laterally extending spring clamping arms 13 the free ends of which are bent laterally as indicated at 14 and adapted to embrace the neck of the bottle and retain the cap in position on the same.

Extending from the flange 11 is a depending spring locking lip 14' the free end of which is disposed between the terminals of the clamping members 13 and bent inwardly for engagement with the exterior walls of the neck 6 of the bottle thereby to assist in preventing accidental displacement of the cap. In using the cap the latter is positioned on one side of the bottle with the terminals 14 of the clamping arms 13 embracing the neck of the bottle after which the cap is moved laterally thereby causing the neck of the bottle to enter the annular groove 9 and the spring locking lip 14' to bear against the adjacent exterior walls of the neck as best shown in Fig. 2 of the drawing. In order to remove the clamp it is merely necessary to exert a slight upward pull on the cover or closure when the cap may be tilted laterally and readily removed from the neck of the bottle.

Attention is called to the fact that the walls of the central depression 8 bear against



the interior walls of the neck of the bottle and thereby serve to center the cap upon said bottle while the deflected ends of the spring clamping arms serve to expand and guide said arms when the cap is placed in position on the bottle.

In Fig. 4 of the drawing there is illustrated a modified form of the invention in which the depending flange 11 is dispensed with, the spring locking tongue 14" being extended downwardly from the upper surface of the cap-piece or closure 7', as shown. In Fig. 5 of the drawings the spring clamping arms are connected to the cap or closure by a plurality of spaced connecting webs 15.

In Fig. 6 the upper and lower surfaces of the cap or closure are smooth and unobstructed as indicated at 16 thereby to present a smooth bearing surface for engagement with the mouth of the bottle.

For some purposes it is desirable to have the cap provided with an opening so that access may be had to the contents of the bottle without removing the entire cap each time. Fig. 7 shows a structure adapted for this purpose in use with powder or similar material. The cap in this form is perforated and the perforations are covered by a swinging cover 18 pivoted to the cap 7 at 19. The cap may have a depressed portion 8' and the perforations may be arranged in such portions. For use with materials other than powder or the like the openings in the cap may obviously be modified to conform to the requirements of the use of such materials.

21 and 22 (see Fig. 7) are respectively a depression in the under surface of the cover 18 and a projection on the upper surface of the cap 7 which cooperate to stop the plate centrally over the opening or openings of the cap.

A suitable packing may obviously be used

and the different styles of caps shown may obviously be fitted with the various modifications of parts set forth.

Having thus described the invention what is claimed is:

1. A closure for containing vessels comprising a cap formed with a depending marginal flange and provided with a locking lip adapted to engage the exterior walls of the vessel, said cap being provided with spring clamping arms adapted to embrace said vessel.

2. A closure for containing vessels having a depending locking lip and provided with spring clamping arms adapted to embrace the neck of the bottle, and an integral web connecting the cap and spring clamping arms.

3. A closure for containing vessels comprising a cap provided with a depending spring locking tongue and formed with integral clamping arms the terminals of which are spaced apart and deflected laterally.

4. A closure for containing vessels formed of a single piece of metal bent to form a plate provided with a depending marginal flange and having a central depression formed therein, a spring locking tongue depending from the flange, and a pair of spring clamping arms connected to the plate by an integral web.

5. A closure for containing vessels comprising a cap, spring clamping arms adapted to embrace said vessel and an integral web connecting said cap and clamping arms.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EUGENE D. CHELLIS.

Witnesses:

THOMAS H. GATELY, Jr.,  
ERNEST O. CHELLIS.