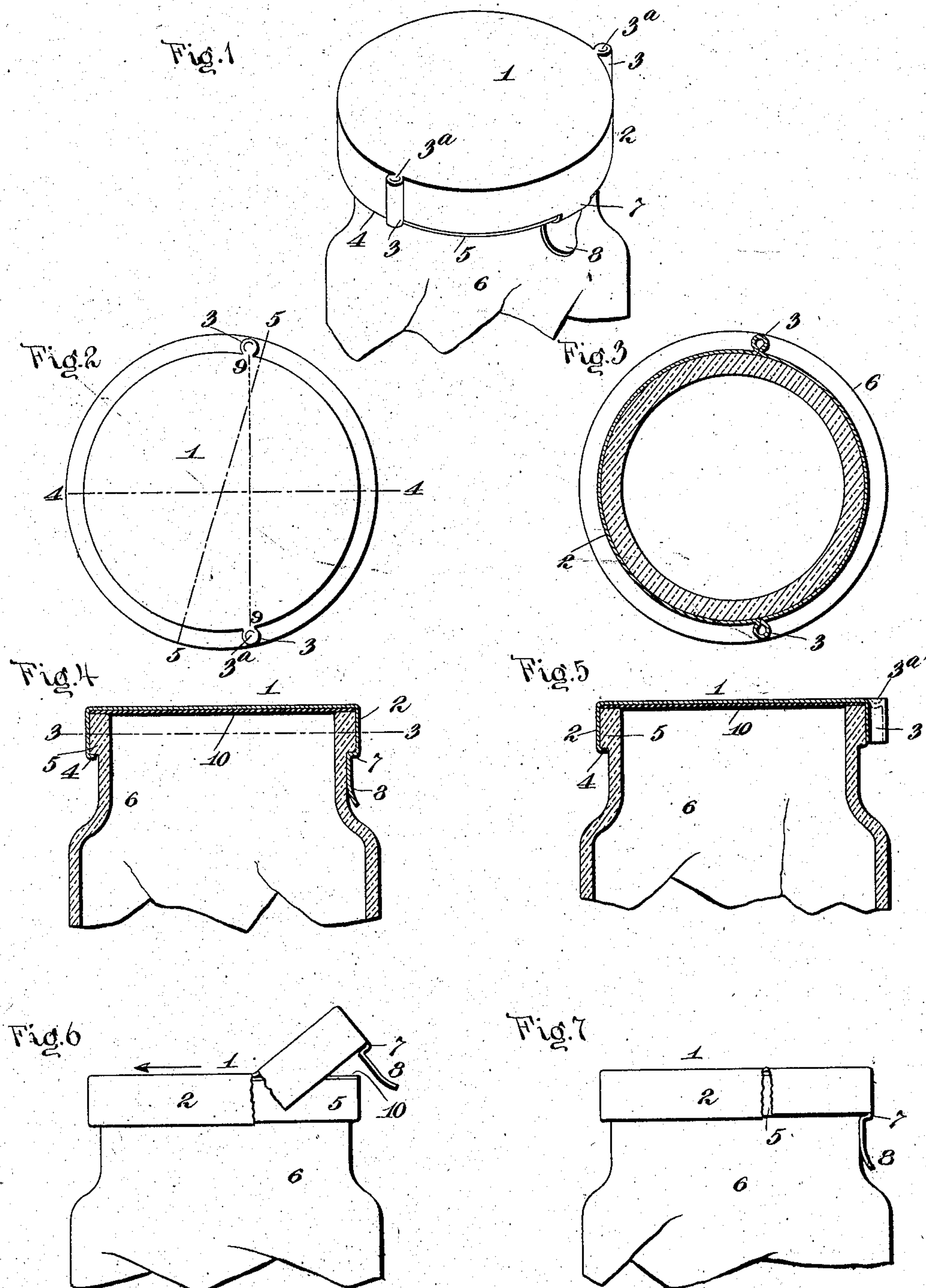


No. 806,175.

PATENTED DEC. 5, 1905.

J. A. NEE.  
CLOSURE

APPLICATION FILED MAR. 31, 1905.



Witnesses:

Jas. F. Coleman  
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# UNITED STATES PATENT OFFICE

JAMES A. NEE, OF NEW YORK, N. Y.

## CLOSURE.

No. 806,175

Specification of Letters Patent.

Patented Dec. 5, 1905.

Application filed March 31, 1905. Serial No. 253,171.

*To all whom it may concern:*

Be it known that I, JAMES A. NEE, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, city and State of New York, have invented a certain new and useful Improvement in Closures, of which the following is a specification.

The object I have in view is the production of a closure for bottles, jars, and the like which comprises a strong and rigid structure which will secure a perfect seal and yet at the same time may be readily opened and will have no separable parts which may become lost or projections which may become broken.

Another object is to produce a closure which after being once opened may be continued to be used upon the same receptacle and a seal secured.

I attain these objects by the mechanism illustrated in the accompanying drawings, which show one embodiment of my invention.

Figure 1 is a perspective view of a portion of a jar with the closure applied. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view taken on the lines 3 3 of Fig. 4. Fig. 4 is a section taken on the lines 4 4 of Fig. 2. Fig. 5 is a section taken on the lines 5 5 of Fig. 2. Fig. 6 is a side view of a portion of the jar with the closure applied after the seal has been broken and the closure partially removed. Fig. 7 is a portion of the jar with the closure in place after the latter has been opened and has been again applied.

In all the views like parts are designated by the same reference characters.

In carrying out my invention I provide a cap 1, formed of sheet metal, having a flange 2. This flange is continuous and is preferably made integral with the cap, and it is provided with vertical lugs 3 3, struck up out of the metal. These lugs are preferably in the form of hollow cylinders having closed tops, and the tops are indented at 3<sup>a</sup> in the process of manufacture for the purpose hereinafter explained. The lugs are preferably formed integrally with the flange, each being closed at the top and open at the bottom. These lugs are arranged so that their sides may be ruptured, and they will be thereby destroyed and the continuity of the flange thereby broken. The presence of the lugs does not break the continuity of the flange, which remains uncut or unmutilated where the lugs are located, and the flange will be unweakened at these points. The lugs are placed on the side of the medial line of the cap—that is to

say, they are in such a position that a straight line drawn across the top of the cap to connect them would extend across and to one side of the center of the cap.

The flange 2 is provided with an inset portion 4, adapted to engage under the head 5 of the neck of the receptacle 6, which is being covered and which constitutes a means for engagement with the receptacle. This inset portion 4 extends around the flange from one lug to the other around the longer way, so that more than half of the circumference of the flange will be provided with the inset portion, as shown in the drawings. In that portion of the flange between the lugs opposite to the inset portion 4 is provided a second inset portion 7 for engagement with the bead 5. This inset portion extends around the flange but a short distance, and extending below it is a finger-piece 8, thus constituting a latch.

The closure is applied to the receptacle to be covered before the inset portions are made, the inset portion being forced against the under surface of the bead by any suitable means. When thus secured, a perfect seal is provided. To open the closure, the tine of a fork or other suitable mechanism is introduced within the top of the lugs 3 3, puncturing them at the points indicated by the indentations 3<sup>a</sup>, and the sides of the lugs are then broken, so that they will be destroyed. The destruction of the lugs will break the continuity of the flange 2. The finger-piece 8 may then be used to disengage the inset 7 from the bead, and the cover may be bent upward or flexed across along the line 9 9, as shown in Fig. 6, elevating one side of the cover. With this portion elevated the closure may then be removed from the receptacle by sliding it in the direction indicated by the arrow in Fig. 6, the elasticity of the metal permitting the flanges 2 to separate a sufficient distance to disengage the inset portions 4 from the bead. The closure may be reapplied to the receptacle by reversing this operation—that is to say, by first moving the closure to cause the flange and its inset portion to engage with the bead and then flattening down the top to cause the inset portion 7 to engage with the bead. The cover when reapplied will form a seal, which will serve to protect the contents of the receptacle, and the cover will be secured in place. A disk 10 of paper or other suitable material is placed within the closure and assists in perfecting the seal and also serves to protect the



contents of the receptacle from contact with the under side of the closure.

The closure may be removed and reapplied a number of times without breaking the metal across the flexure. By using a flange formed with lugs a continuous flange is secured, which will produce an entirely rigid structure, so that a perfect seal can be produced, and the cap will be rigidly secured to the receptacle, so that there will be no opportunity of leakage by the breaking or expanding of the flange.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An improved closure which comprises a cap with a flange, inset portions on the flange adapted to engage with a receptacle and lugs on the flange which when ruptured will permit the cap to be flexed and the insets disengaged.

2. The combination with a receptacle, of a cap having a continuous flange unweakened at any point and inset portions engaging with the receptacle, and means on the flange whereby its continuity may be broken and the cap permitted to be flexed.

3. An improved closure which comprises a cap with a continuous unweakened flange, means carried by the flange for engaging with a receptacle and means to permit the flexing of the cap to disengage it from the receptacle.

4. An improved closure which comprises a cap with a flange, means carried by the flange for engaging with a receptacle and lugs on the flange which will break the continuity of the flange by being ruptured and permit the flexing of the cap.

5. An improved closure which comprises a cap of sheet metal with an integral flange, lugs on the flange on the same side of the medial line, inset portions on the flange be-

tween the lugs, and a finger-piece on the flange.

6. An improved closure which comprises a sheet-metal cap with a flange, means carried by the flange to permit the rupturing of the flange and breaking its continuity, and an inset portion on the flange adapted to engage with a receptacle and extending between the rupturing means and more than half of the circumference of the flange, and a second inset and finger-piece on the flange between the rupturing means and opposite the first inset.

7. An improved closure which comprises a sheet-metal cap with a flange, lugs on the flange, which upon being ruptured will break the continuity of the flange, and an inset portion on the flange adapted to engage with a receptacle and extending between the lugs and more than half of the circumference of the flange, and a second inset and finger-piece on the flange between the lugs and opposite the first inset.

8. An improved closure which comprises a cap with an integral continuous flange, inset portions on the flange adapted to engage with a receptacle and means on the flange which when ruptured will destroy the continuity of the flange, the said flange being unweakened adjacent to the rupturing means.

9. An improved closure which comprises a cap with a flange, inset portions on the flange adapted to engage with a receptacle and lugs on the flange which when ruptured will permit the cap to be flexed and inset portions disengaged, the said lugs having inset tops.

This specification signed and witnessed this 30th day of March, 1905.

JAMES A. NEE.

Witnesses:

JOHN L. LOTSCH,  
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