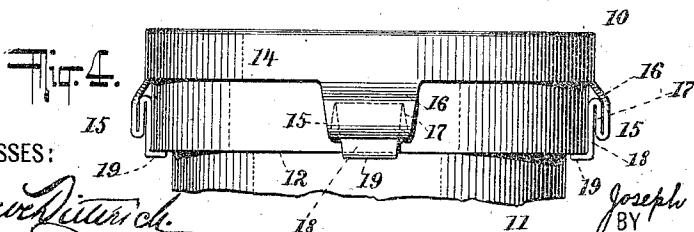
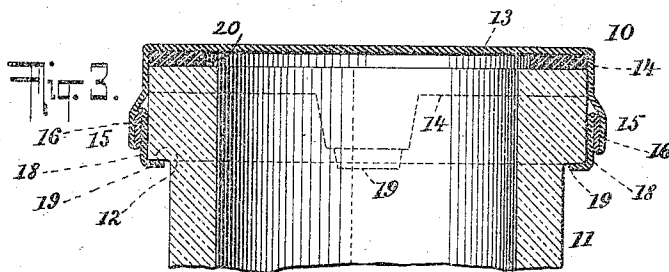
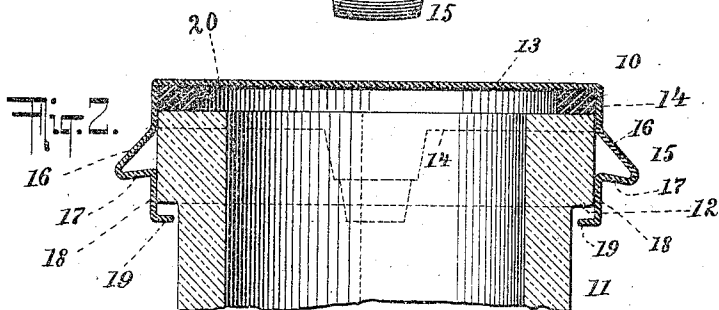
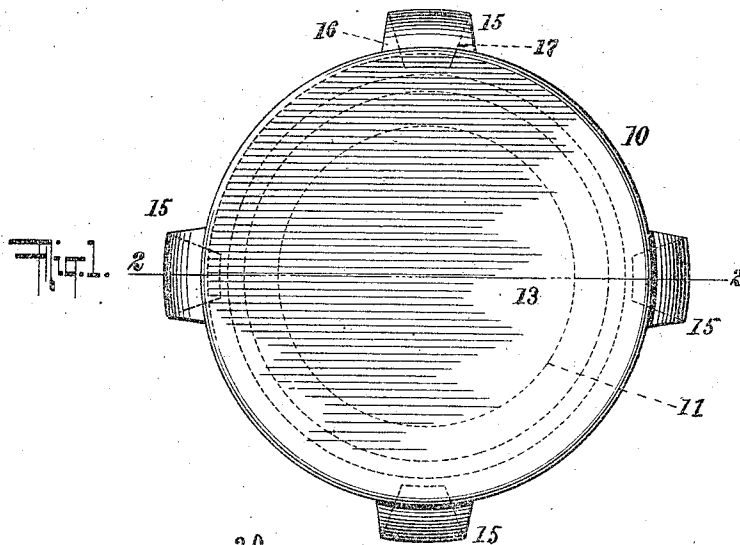


J. V. HULL.
 CLOSURE FOR BOTTLES, JARS, AND OTHER RECEPTACLES.
 APPLICATION FILED JULY 3, 1908. RENEWED MAY 16, 1911.

1,013,391.

Patented Jan. 2, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH V. HULL, OF BROOKLYN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
SURE SEAL COMPANY, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

CLOSURE FOR BOTTLES, JARS, AND OTHER RECEPTACLES.

1,013,391.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed July 3, 1908, Serial No. 441,743. Renewed May 16, 1911. Serial No. 627,512.

To all whom it may concern:

Be it known that I, JOSEPH V. HULL, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Closures for Bottles, Jars, and other Receptacles, of which the following is a specification.

The invention relates to improvements in closures for bottles, jars and other receptacles; and it consists in the novel cap, hereinafter described and claimed, to be applied over the mouth of the receptacle for sealing the same.

The cap of my invention is formed with a depending flange to pass upon and encompass the upper edge portions of the receptacle and with arms which extend downwardly from the lower edges of said flange and are adapted at their lower ends to engage a shoulder formed on the neck of the receptacle, whereby to hold the cap in position. The said arms are integral with the cap and initially of angular formation and adapted to be shortened by being folded on themselves after the cap is on the receptacle, thereby bringing the cap in position against the resistance offered by a gasket located in the top of the cap and compressed against the upper edges of the receptacle surrounding the mouth thereof.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a top of a view of a cap constructed in accordance with and embodying my invention, said cap being shown in its initial condition loosely placed over the mouth of the receptacle to be sealed; Fig. 2 is a vertical section of the same on the dotted line 2—2 of Fig. 1, the receptacle being shown as partly broken away; Fig. 3 is a like view of the same illustrating the cap in its locked position on the receptacle and the gasket as having been compressed from its normal condition shown in Fig. 2 to its sealing condition, represented in Fig. 3, and Fig. 4 is an edge view, partly broken away, of the cap and receptacle, the cap being represented in its final condition sealing the receptacle.

In the drawings, 10 designates the cap as a whole, and 11 the receptacle to be sealed, said receptacle being formed with an exte-

rior annular shoulder 12 extending around the upper portion of the neck thereof.

The cap 10 will preferably be formed from one integral piece of sheet metal and comprises the top 13, an annular flange 14 depending from the edges of said top, and a series of arms 15 which extend downwardly from the lower edges of said flange 14 and each comprising a downwardly and outwardly extending member 16, and inwardly and upwardly extending member 17, a downwardly extending vertical member 18 and a lip 19 bent inwardly from the lower end of said member 18 toward the receptacle 11 in position to lie below the shoulder 12 on said receptacle. The initial condition of the arms 15 when the cap is loosely placed on the receptacle 11 is illustrated in Figs. 1 and 2. The upper end of the receptacle 11 fits snugly within the flange 14 of the cap and vertical members 18 of the arms 15, and between the upper inner portions of the cap and the upper edges of the receptacle 11 is a compressible gasket 20.

When it is desired to seal the receptacle the cap 10 containing the gasket 20 will be placed over the mouth thereof and rest thereon in the manner represented in Fig. 2, and thereupon pressure will be applied on the top of the cap to compress the gasket 20 against the upper edges of the receptacle and into sealing condition, as represented in Fig. 3, and while this pressure is maintained on the cap, pressure will be applied against the outer ends of the members 16 of the arms 15 (where said members unite with the members 17 of said arms) for the purpose of folding the members 16 against the members 17 and the members 17 against the members 18 of said arms, the upper ends of the members 17 and the members 18 sliding upwardly against the outer walls of the receptacle and closing together and the member 16 closing downwardly against the member 17, as shown in Fig. 3. The upward movement of the members 18 during the folding of the angular arms 15 against the neck of the receptacle, results in the lips 19 being carried upwardly into firm contact with the shoulder 12, said lips being enabled when in engagement with said shoulder 12 to lock the cap on the receptacle with the gasket 20 in its compressed sealing condition. When it is desired to remove the closure from the receptacle, the

lips 19 will be bent downwardly to release the cap and thereupon the latter may be conveniently removed.

The arms 15 are preferably of downwardly tapered edge outline and curved transversely concentrically with the circumferential edges of the top of the cap and the exterior surface of the neck of the receptacle, this formation of said arms rendering them entirely efficient with the minimum width and thickness of metal. The upward movement of the members 18 of the arms 15 draws the lips 19 with great firmness against the shoulder 12 and the folding of the members 16, 17 downwardly against each other and the members 18 results in the members 18 being securely bound against the receptacle with the lips 19 held locked below the shoulder 12.

I illustrate a cap provided with four arms 15 which will be entirely sufficient for all usual purposes. In many instances the cap will be found entirely efficient when formed with only two oppositely disposed arms 15.

What I claim as my invention and desire to secure by Letters-Patent, is:

1. In combination with a receptacle having an exterior shoulder about its neck, a closure comprising a cap and a compressible gasket therein engaging the upper edges of said receptacle, said cap having an annular

depending flange and arms extending downwardly therefrom and each comprising, folded together, a downwardly extending member, an upwardly extending member and a downwardly extending member having an inwardly bent lip on its lower end engaging said shoulder with binding force; substantially as set forth.

2. For use on a receptacle having an exterior shoulder about its neck, a closure comprising a cap and a compressible gasket therein to engage the upper edge of said receptacle, said cap having downwardly extending arms each comprising in succession an outwardly and downwardly extending member, an inwardly extending member and a downwardly extending member having an inwardly bent lip on its lower end to pass below said shoulder, said members when folded together against the receptacle, with said gasket compressed, being adapted to draw said lip upwardly against said shoulder with binding force; substantially as set forth.

Signed at New York city, in the county of New York, and State of New York, this 2nd day of July A. D. 1908.

JOSEPH V. HULL.

Witnesses:

ARTHUR MARION,
CHAS. C. GILL.