

A. H. EMERY.
 JAR OR BOTTLE CLOSURE.
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1,044,365.

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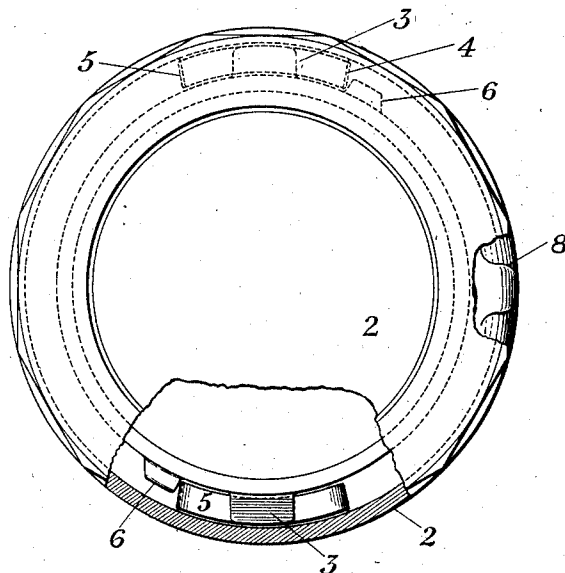


Fig. 1

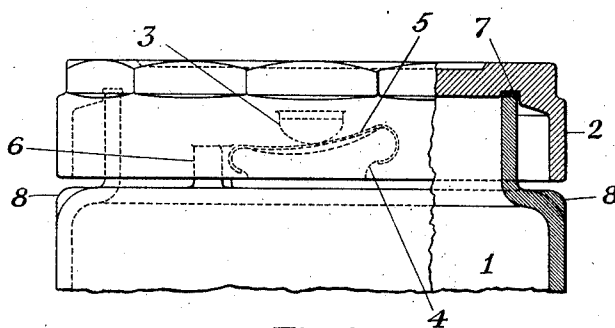


Fig. 2

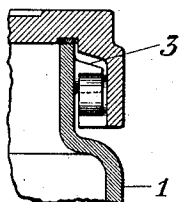


Fig. 3

WITNESSES

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JAR OR BOTTLE CLOSURE.

1,044,365.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT H. EMERY, a citizen of the United States, residing in the city of Stamford, county of Fairfield, and State of Connecticut, have invented a new and Improved Jar or Bottle Closure, of which the following is a specification.

My invention relates to improvements in the construction of glass jars, bottles or similar receptacles, and particularly to the closure of such receptacles as hereinafter described and claimed.

Reference is to be had to the accompanying drawing forming a part of this specification.

Figure 1 is a plan view of a jar and cover with part of the cover broken away; Fig. 2 is a side elevation, partially in section, of the upper part of the jar and its cover; and Fig. 3 is a side elevation in section of a part of the cover and neck of the jar.

This invention relates to the class of jars in which the cover is secured in place by the help of lugs on the cover and neck of the bottle or jar.

My improvements relate to a method of fastening the cover securely and to improvements by means of which it can be removed easily after standing until the packing sticks firmly.

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

Where 1 is the upper part of the jar, 2 is the cover.

3 are two lugs on the neck of the jar.

4 are two lugs on the inside of the flange on the cover.

5 are spring plates between lugs 3 and 4.

6 are two lugs on the neck of the bottle or jar.

7 is a packing ring in a recess in cover.

8 are two small lugs on the upper part of the jar.

The lugs 4 are concave on top or the side toward the lugs 3 when in use, and carry spring plates 5, which are best made of highly tempered steel, plated or otherwise coated to prevent rusting. The ends of these springs are bent to hold them in place, and when the cover is off, the central parts

of 5 should spring away from lugs 4, enough to be either straight or convex on the side away from 4.

The parts 1 and 2 and their respective lugs 3 and 4 should be so proportioned and placed that when lugs 4 are turned under 3 the springs 5 will be bent as shown in the drawings and with such pressure as to cause the packing 7 to seal the joint between the cover and jar. When sealed this pressure will be greatly increased as the contents of the jar cool. The lugs 6 stop the rotation of the cover at the proper point. After cooling the cover will be rotated with difficulty and after standing, will stick very hard. To loosen this a knife blade or other suitable tool is placed under the flange on 2 over one of the lugs 8 on the neck of the jar, when the cover will be easily raised enough to stop the sticking of the packing and let air into the jar, when the cover can easily be rotated sufficiently to permit its removal.

The lugs 3 and 4 may be replaced by three sets of lugs instead of two as here shown. Each lug 4 may be replaced by two lugs so placed as to hold the spring 5 in the proper place, but I prefer it made as here shown where the concavity of the upper face permits the cover to be raised enough to let in air and loosen the sticking of the packing after it has been standing long. This concavity should be little, if any, more than this, because if the cover is raised far in the sealing position the spring 5 will be permanently bent or broken.

The relative position of the lugs 3 and 4 may be changed if desired, that is, the lugs 4 carrying the springs may be put on the neck of the jar and lugs 3 be put on the cover.

The springs 5 are necessarily made thin to give sufficient motion to force the cover firmly on the packing 7 to seal it, and the additional motion necessary later when the cover is raised to break the joint after it has been standing. This limited pressure which can readily be gotten on the thin springs 5 is not sufficient always to seal on a packing 7. For this reason I coat the packing 7 with paraffin or other suitable material which enables the cover to seal ini-

tially with very much less pressure than when this surfacing material is not used. When sealed by using this coating for the packing ring, as the contents cool, the additional air pressure augments the spring pressure sufficiently to keep the cover sealed and the springs still have enough additional motion to permit the cover to be loosened and raised in relieving the air pressure without breaking. This coating is further advantageous in that it reduces the sticking of the packing ring 7 if made of rubber, as is usually done, and keeps it from imparting an unpleasant taste to the contents of the jar.

These jars may be of glass or any other suitable material.

I claim:—

1. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover.

2. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, said springs resting on the lugs of the cover and acting to hold the cover on.

3. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover; each of said springs being supported at its ends.

4. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, the lugs on one of these members being formed and located in a manner to hold the springs in an inclined position such that the turning of the cover loads the springs with pressure to hold the cover on.

5. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, said springs having their ends bent over the lugs which carry them to hold them in position.

6. A jar or receptacle provided near one end with a plurality of outwardly project-

ing lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, and a packing between said jar and cover.

7. A jar or receptacle, and a flanged cover therefor; said member having an interposed packing ring; one of said members being provided with a plurality of projecting lugs, and the other member having springs, each supported at its ends, in inclined position and located to cause the lugs on the one member, when rotated, to interlock therewith, and bring the spring pressure upon the packing ring.

8. A jar or receptacle provided near one end with plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, and another set of lugs adapted to stop the rotation of the cover when it is turned to sealing position.

9. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, said lugs being so formed as to allow further motion of the springs so that the cover may be raised slightly from the jar after it is rotated to sealing position.

10. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, the lugs carrying the springs being formed in a way to allow additional motion of the springs, so that after sealing the cover can be raised slightly to permit air to enter the jar when it is desired to remove the cover; means being provided to limit the additional motion, to prevent injury to the spring.

11. A jar or receptacle provided near one end with plurality of outwardly projecting lugs, a flanged cover for said jar provided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, the lugs carrying the springs being formed with a concave face toward the spring to allow further motion of the springs so that the cover may be raised slightly from the jar when in sealing position.

12. A jar or receptacle provided near one end with a plurality of outwardly projecting lugs, a flanged cover for said jar pro-

vided with inwardly projecting lugs adapted to be turned beneath said lugs on the jar and springs between said lugs on jar and cover, and lugs on the jar beneath the flange
5 of the cover to aid in raising the cover from the jar.

The foregoing specification signed at

Stamford, Connecticut, this 27 day of January, 1902.

ALBERT H. EMERY.

In presence of two witnesses:

ALBERT H. EMERY, Jr.,

GEORGE R. CLOSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."