

A. AND H. INGRAM.
 CLOSURE FOR JARS, BOTTLES, AND OTHER RECEPTACLES.
 APPLICATION FILED JULY 5, 1917. RENEWED JAN. 27, 1920.

1,353,399.

Patented Sept. 21, 1920.

Fig. 1.

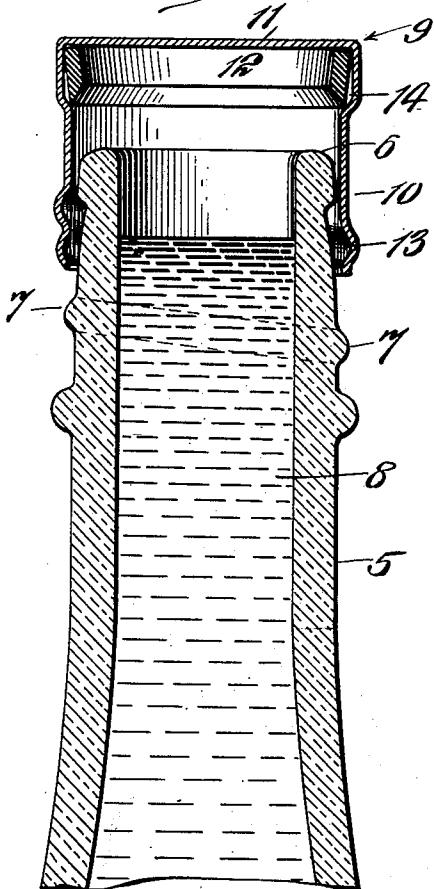
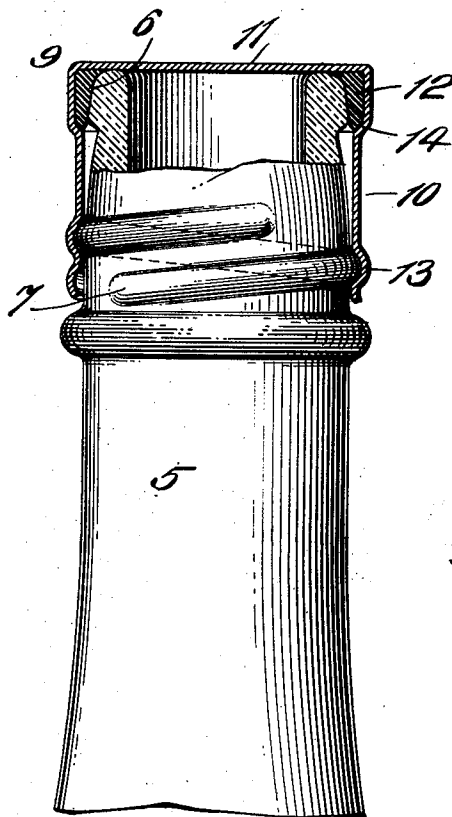
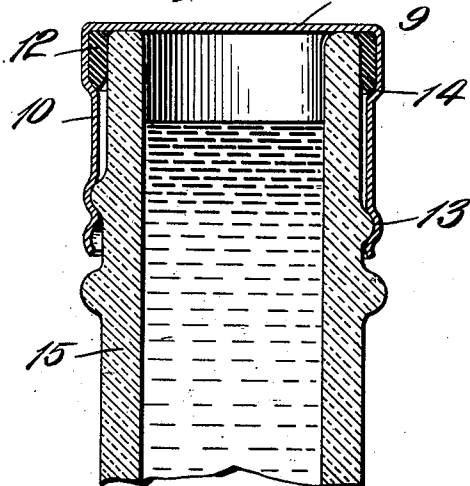


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED INGRAM AND HARRY INGRAM, OF BROOKLYN, NEW YORK, ASSIGNORS TO
INGRAMS INCORPORATED, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW
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CLOSURE FOR JARS, BOTTLES, AND OTHER RECEPTACLES.

1,353,399.

Specification of Letters Patent.

Patented Sept. 21, 1920.

Application filed July 5, 1917, Serial No. 178,596.

Renewed January 27, 1920. Serial No. 354,517.

To all whom it may concern:

Be it known that we, ALFRED INGRAM and HARRY INGRAM, citizens of the United States, and residents of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Closures for Jars, Bottles, and other Receptacles, of which the following is a specification.

10 The invention pertains more particularly, although not exclusively, to closures of the screw-cap type adapted to be applied upon bottles holding catsup, sauce and other commodities, and one of the purposes of the invention is to provide a closure of this character adapted to efficiently seal the mouth of the bottle when the cap is applied thereto, the sealing taking place around the upper outer edges of said mouth.

20 We present our invention herein as embodied in a screw-cap having a barrel or skirt portion adapted to pass downwardly upon the neck of a bottle or other receptacle, a top and a special gasket of rubber or other packing material within the upper outer edges of the cap, said gasket being a continuous ring or band normally having an outer flat surface, a flat top edge and an inner surface which in its upper portion is flat and parallel with the outer surface of the gasket and a downwardly and outwardly tapered lower portion, and said cap at the upper edges of its barrel portion preferably containing an annular recess affording
35 a seat for the gasket and into which the gasket is compressed during the application of the cap to the receptacle.

40 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 vertical section through a portion of the neck of a bottle and the cap of our invention, the cap being shown as applied loosely upon said neck preparatory to being screwed downwardly thereon;

50 Fig. 2 is a side elevation, partly in section, of the neck of the bottle, with the cap of our invention shown in section and as having been screwed downwardly upon the bottle-neck and sealing the mouth thereof, and

Fig. 3 is a vertical section through a por-

tion of the neck of a bottle differing in outline from the structure shown in Figs. 1 and 2 and with the cap of our invention applied thereto, Fig. 3 being presented for the purpose of showing that the cap of our invention is not limited to the specific shape of bottle-neck shown in Figs. 1 and 2.

60 In the drawings, referring to Figs. 1 and 2, 5 designates a portion of the neck of a bottle, 6 an outwardly curved surface at the outer edge of said neck and extending around the mouth thereof, 7 a screw-thread of usual character formed upon said neck, 8 the contents of the bottle, and 9 the cap of our invention, said cap comprising a cylindrical skirt or barrel portion 10, a top 11 and a gasket 12. The barrel portion 10 is shown as formed with a groove 13 to engage the thread 7 on the bottle-neck, and at its upper peripheral portion said part 10 is offset outwardly or recessed, as at 14, to receive and afford a seat for the gasket 12. The barrel portion 10 and top 11 will preferably be formed from one integral piece of sheet metal, and said barrel portion 10 will have a diameter suited to the diameter of the neck of the bottle so that it may pass downwardly over and be securely connected therewith.

The gasket 12 is of special importance in that primarily it has a flat outer surface, a flat upper edge and an inner surface whose upper part is parallel with said outer surface and whose lower part inclines downwardly and outwardly and is thereby enabled to readily pass downwardly over the outer curved edges 6 of the mouth of the bottle when the cap is applied to position.

75 The initial relation of the cap, gasket and receptacle is illustrated in Fig. 1, in which it may be observed that the gasket 12 is loosely placed sufficiently within the recess 14 of the cap to be supported thereby. When the cap is screwed downwardly upon the receptacle or otherwise moved to position, the beveled lower edge of the gasket engages the outwardly curved surfaces 6 of the receptacle and said gasket becomes deformed and pressed within the recess 14 of the cap and against the top 11 of said cap, said gasket then taking the form illustrated in Fig. 2, in which it may be seen that the gasket extends along the upper shouldered end of the bot-

tle-neck and is squeezed above the outer edge portions of the mouth of the bottle, thereby creating a side-seal and a partial top-seal.

It is to be noted, however, that the top-seal is exterior to the top edge or rim of the mouth of the receptacle and that our cap is of such proportions that the flat top thereof engages said top edge or rim and keeps the contents of the receptacle away from the gasket. Our gasket is only a top seal to the extent that it engages the outer curved surface of the mouth of the receptacle when such mouth possesses such a surface. We secure by our invention a deep side seal and protect the contents of the bottle from the gasket. Our cap-closure is adapted for repeated use and to be applied and removed by hand until the contents of the bottle have become consumed.

In Fig. 3 I show the same cap 9 applied upon a modified form of receptacle, the modification consisting mainly in the shape of the upper edge portions of the neck 15 of the receptacle. In Fig. 3 the inner and outer side walls of the mouth of the receptacle are substantially flat and the upper inner and outer edges around said mouth are convexly curved. When the cap 9 is moved downwardly upon the neck shown in Fig. 3, the outwardly beveled lower edge of the gasket becomes engaged by the upper outer edges surrounding the mouth of the receptacle and as said cap is screwed downwardly the gasket becomes deformed and squeezed between the inner wall of the recess 14 and the side of the mouth of the receptacle and against the top of the cap and over the outer curved edges of the mouth of the receptacle, as will be understood on reference to Fig. 3. The cap and gasket shown in Fig. 3 are identical with the cap and gasket shown in Fig. 1.

We have shown a preferred embodiment of our invention for sealing the mouth of a receptacle with the sealing zone along the outer edges and partly over the top edge of the mouth of the receptacle, but we do not desire to be limited to all of the details shown and described, since we regard the closure as of great efficiency and desire to claim the same broadly.

What we claim as our invention and desire to secure by Letters Patent, is:

1. A cap closure adapted for repeated use and to be applied and removed by hand and comprising a barrel or skirt portion to pass downwardly upon the neck of a receptacle and having within its upper inner

peripheral portion an annular side recess, a top and a gasket within said recess having flat sides and a downwardly and outwardly tapered lower edge standing normally in the path of the upper outer edges of the mouth of the receptacle, said top being of such proportions that when the closure is applied to the receptacle it will engage the top edge or rim thereof and confine the gasket to the surfaces of the receptacle exterior to said edge.

2. A cap closure adapted for repeated use and to be applied and removed by hand and comprising a barrel or skirt portion to pass downwardly upon the neck of a receptacle and having within its upper inner peripheral portion an annular side recess, a top and a gasket within said recess having flat sides and a downwardly and outwardly tapered lower edge standing normally in the path of the upper outer edges of the mouth of the receptacle, said top being of such proportions that when the closure is applied to the receptacle it will engage the top edge or rim thereof and confine the gasket to the surfaces of the receptacle exterior to said edge, and said receptacle and closure having inter-engaging portions for detachably securing the closure on the receptacle.

3. A cap closure adapted for repeated use and to be applied and removed by hand and comprising a barrel or skirt portion to pass downwardly upon the neck of a receptacle and having within its upper inner peripheral portion an annular side recess, a top and a gasket within said recess having flat sides and a downwardly and outwardly tapered lower edge standing normally in the path of the upper outer edges of the mouth of the receptacle, said top being of such proportions that when the closure is applied to the receptacle it will engage the top edge or rim thereof and confine the gasket to the surfaces of the receptacle exterior to said edge, and said receptacle and closure having inter-engaging screw threads for detachably securing the closure upon the receptacle.

Signed at New York city, in the county of New York and State of New York, this 3rd day of July A. D. 1917.

ALFRED INGRAM.
HARRY INGRAM.

Witnesses:

ARTHUR MARION,
CHAS. C. GILL.