

No. 814,374.

PATENTED MAR. 6, 1906.

J. R. HARBECK.  
CONTAINER CLOSURE.  
APPLICATION FILED JULY 27, 1905.

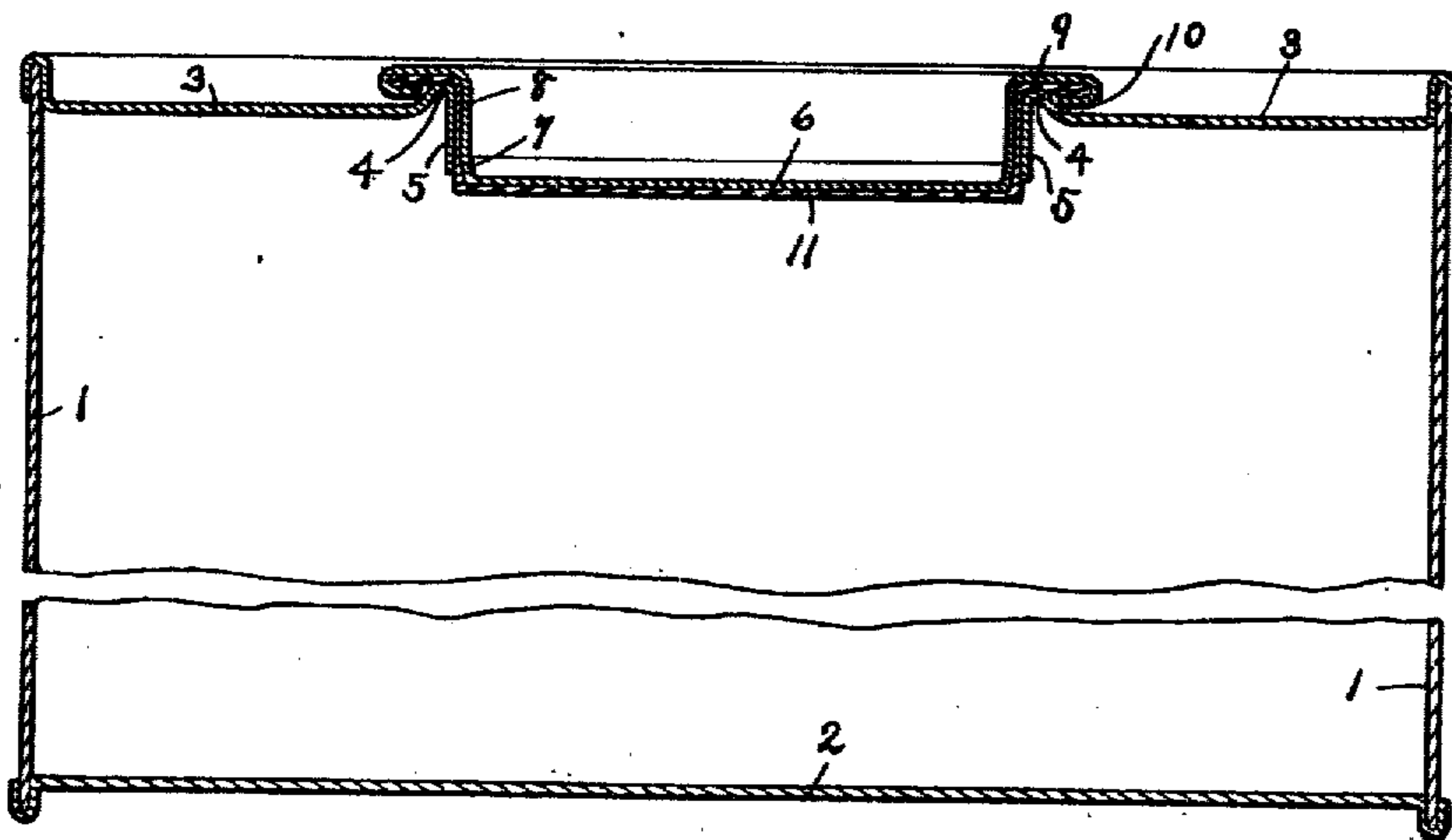


Fig. 1.

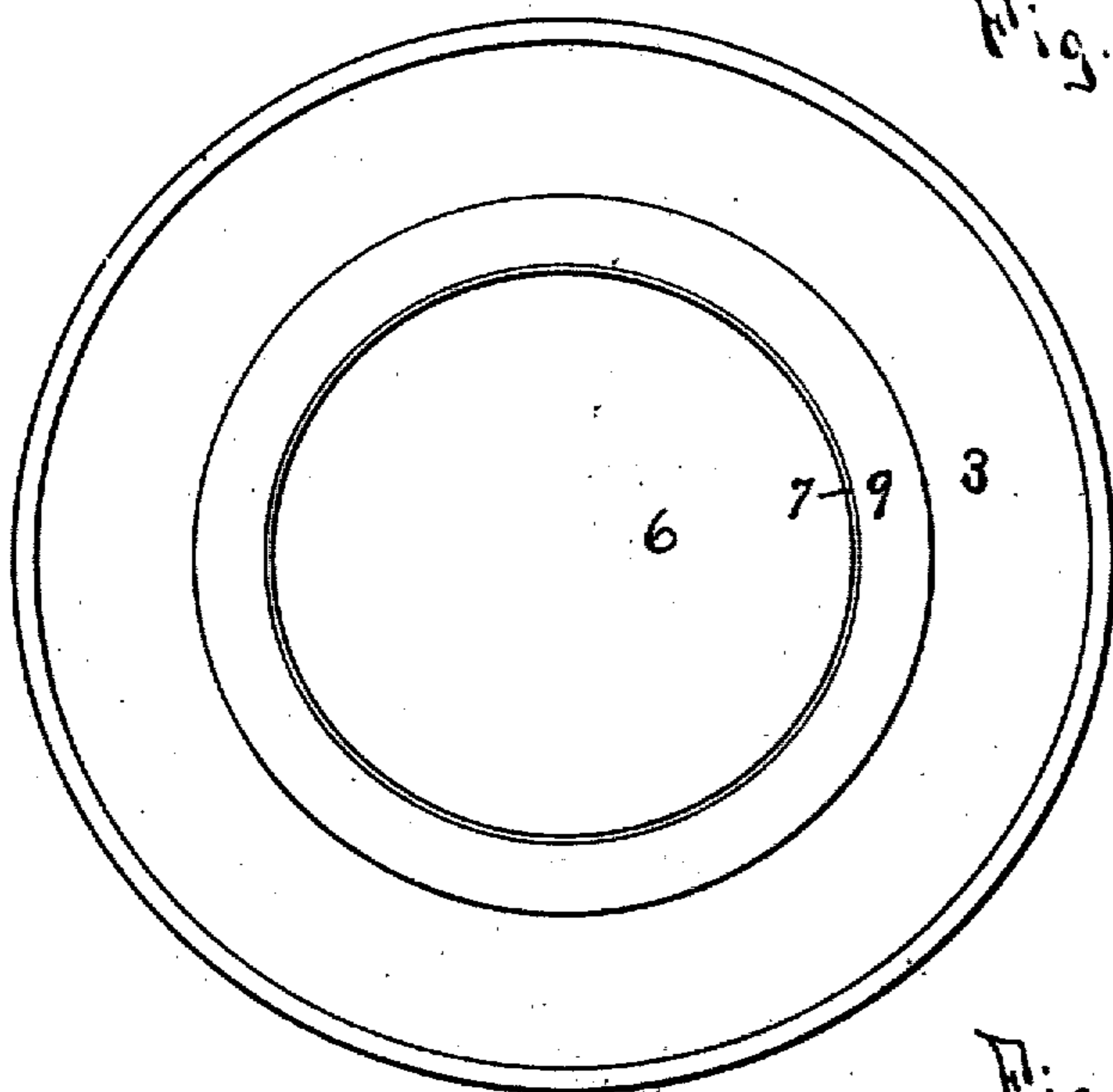


Fig 2.

Witnesses:

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Inventor

By his Attorney

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# UNITED STATES PATENT OFFICE.

JERVIS R. HARBECK, OF DETROIT, MICHIGAN, ASSIGNOR TO GEM FIBRE PACKAGE COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

## CONTAINER-CLOSURE.

No. 814,374.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed July 27, 1905. Serial No. 271,411.

*To all whom it may concern:*

Be it known that I, JERVIS R. HARBECK, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Container-Closure, of which the following is a specification.

This invention relates to a sealing-gasket for cans, pails, and other containers intended for the shipment of canned fruits and vegetables, paints, oils, &c.; and the object of my invention is to provide means whereby the closure of a container-top may be rendered fluid-tight without the use of solder or cement.

My invention consists of a closure having a cylindrical portion and a flat flange, a cap-shaped gasket of fibrous material for the closure and secured to the same, and a head for the container having a cylindrical flange, the parts being so proportioned that the material of the gasket will be tightly wedged in between the closure and the flange on the head when the parts are assembled.

It further consists in tapering the lower end of the cylindrical portion of the closure so as to afford space inside of the flange on the head wherein a portion of the gasket may swell on account of absorbing a portion of the liquid contents of the container, thereby forming a seal.

In the accompanying drawings, which illustrate an embodiment of my invention, Figure 1 is a central cross-section of a container provided with my improved seal, and Fig. 2 is a plan of the container on a slightly-smaller scale.

Similar reference characters refer to like parts throughout the several views.

Closures for containers intended for liquids are usually either soldered down or provided with a screw or other mechanical device to insure a liquid-tight joint. These constructions are unsatisfactory, the soldered top because of the trouble of cutting the material to open the container and the mechanical device because of the expense.

In the construction here shown the body 1 may be of any suitable material, either of tin or of fiber, and the bottom 2 is secured thereto by soldering or crimping, as desired. The sheet-metal head 3 is also secured to the body in any desirable manner and is provided with an upwardly-projecting bead 4 and a down-

wardly-extending cylindrical flange 5. The closure is made up of the disk 6, a tapering portion 7, a straight cylinder 8, a flat flange 9, and an inturned portion 10. The gasket 11 for the closure is preferably of vegetable parchment, paper, or similar material and is adapted to fit tightly over the closure, being held in place by the inwardly-turned portion 10 of the closure.

The head 3 may be formed by one stroke of the die. The closure is cut out as a disk, as is also the gasket. The two may then be formed at the same time by placing one on the other in the die; but preferably each is formed separately, the portion 10 of the closure being left flat. The gasket is then slipped onto the closure and the part 10 of the closure crimped down.

When the container has been filled, the closure is forced into the opening in the head, the material of the gasket being compressed between the flange 5 and the cylinder 8 of the closure. As soon as any of the exposed portion of the gasket is moistened by the liquid in the container the fibrous material will swell, still further insuring a fluid-tight joint, especially in the tapering space formed between the part 7 of the closure and the flange 5. When the closure is forced down into place, a portion of the gasket will also be compressed between the bead 4 of the head and the flange 9 of the closure, thus assisting in forming a fluid-tight joint.

Having now explained my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a container, the combination of a head having a downwardly-extending cylindrical flange and a raised circular bead adjacent thereto, a closure comprising a cylindrical portion having a tapering end closed by a circular disk and a flat outwardly-extending flange, and an absorbent fibrous gasket compressed between the cylindrical portion of the closure and the cylindrical flange of the head, and between the flange of the closure and the bead on the head, said gasket being secured to the closure.

2. In a container, the combination of a head having a downwardly-extending cylindrical flange, a closure comprising a cylindrical portion closed by a circular disk and a flat radial flange, and an absorbent fibrous gasket secured to said closure and adapted

to be compressed between the cylindrical portion of the closure and the cylindrical flange of the head.

3. In a container, the combination of a head having a cylindrical flange, a closure comprising a cylindrical portion closed at one end and having a radial flange at the other, and a fibrous gasket adapted to be compressed between the cylindrical portion of the closure and the cylindrical flange of the head.

4. A closure for containers comprising a cylindrical body closed at one end and having an outwardly-extending flange at the other, and a fibrous gasket having a cylindrical body tightly fitted to the body of the closure, the flange of the closure being bent around the adjacent edge of the gasket to secure the same to the closure so as to unite the closure and gasket.

5. In a container, the combination of a head having a downwardly-extending cylindrical flange, a closure comprising a cylindrical portion closed by a disk at its lower end, and an absorbent fibrous gasket secured to the closure and compressed between the cylindrical portion of the closure and the cylindrical flange of the head and adapted to expand between the free edge of the cylindrical flange of the head and the closure to form a fluid-tight joint.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JERVIS R. HARBECK.

Witnesses:

EDWARD N. PAGELSEN,  
G. WILSON.