M. J. COONEY AND H. J. BENDER.

CLOSURE FOR CONTAINERS.

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**1,313,264.** Patented Aug. 19, 1919.

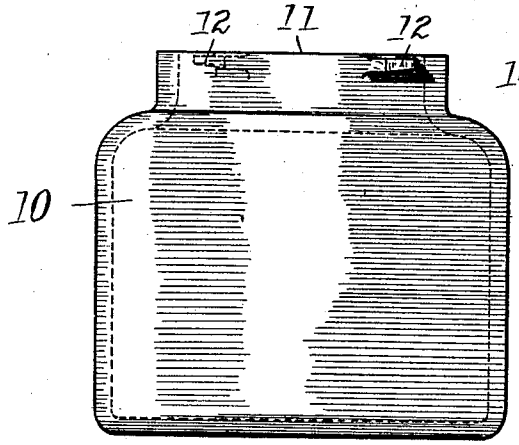



Fig. 1

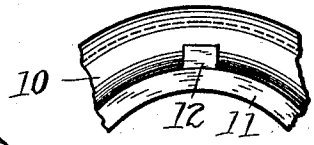



Fig. 5

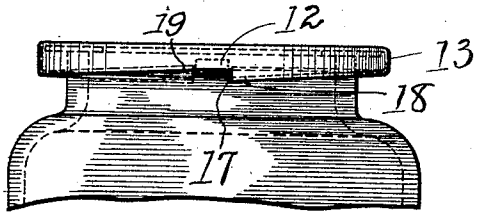



Fig. 2

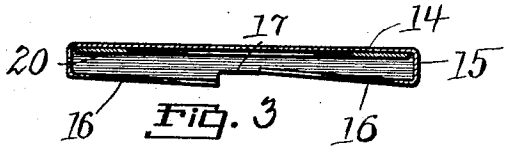



Fig. 3

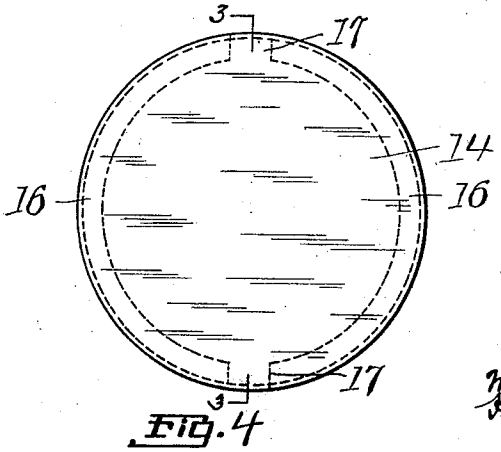



Fig. 4

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# UNITED STATES PATENT OFFICE.

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## CLOSURE FOR CONTAINERS.

1,313,264. Specification of Letters Patent. Patented Aug. 19, 1919.

Application filed February 20, 1918. Serial No. 218,330.

*To all whom it may concern:*

Be it known that we, MICHAEL J. COONEY and HENRY J. BENDER, citizens of the United States, and residents of Plainfield, county of Union, and State of New Jersey, have invented certain new and useful Improvements in Closures for Containers, of which the following is a specification.

Our invention relates to closures for containers, such, for example, as fruit jars and the like.

Among the objects of the invention are the provision of an extremely simple, easily constructed closure which is readily applied and may be readily and easily detached, and which when in place serves as an efficient and hermetic closure.

In the accompanying drawing a closure in accordance with our invention is shown applied to a glass container, such as an ordinary fruit jar. In said drawing, Figure 1 is a side view of the jar. Fig. 2 is a fragmentary side view of the upper portion of the jar with a closure in accordance with our invention thereon, but not turned into final position. Fig. 3 is a central, cross-sectional view of the closure taken on line 3, 3, Fig. 4. Fig. 4 is a top view of the closure, and Fig. 5 is a fragmentary detail plan view of the jar shown in Fig. 1 and showing a lug thereon by means of which the cover may be attached.

The container 10, to which the cover is to be applied, is provided with retaining means therefor, preferably having the form of lugs or ears 12, 12. These ears or lugs are preferably placed slightly below the top surface of the container, which is preferably made flat and smooth as by grinding, and project outwardly a short distance therefrom. By being placed somewhat below the top of the container they are protected to an extent from being broken off. There may be any desired number of these lugs, but we prefer to have two and prefer to have them placed substantially opposite one another or substantially 180° apart.

The closure 13 is preferably formed from sheet metal as by stamping or the like operation, and preferably comprises a plate or lid 14, a side flange 15 and inwardly turned flanges 16, 16. The flanges 16, 16 are preferably of spiral form and preferably each extends substantially half way about the cover. These partial flanges 16, 16 terminate in notches 17, 17, of such form as to be adapted to receive therein the lugs 12, 12. At the entering end 18 the flanges 16, 16 are spaced farther from the cover plate 14 than at their opposite ends 19 so that by a rotation of the closure upon the container, the top plate 14 is drawn firmly downward so as to bear with considerable force on the top surface 11 of the container 10. A gasket 20, such as an ordinary jar rubber, is preferably placed within the cover and, if desired, may be secured to the top plate thereof as by cement or other suitable means.

The operation of a device in accordance with our invention will be readily understood from the foregoing. To hermetically close a can, jar, or other container, the closure is placed thereover with the lugs 12 on the container received within the slots 17 of the closure. The closure is then rotated through such portion of a turn as is necessary in order to draw the top thereof firmly upon the top of the container, and the rise in the flange 16 toward the top plate 14 being gradual, and friction being present between the top of the cover and the top of the can, as, for example, when a rubber gasket is used, there is no tendency of the cover to backward rotation, but the can is held firmly and tightly sealed as long as desired. Also the lower surfaces of the lugs 12, 12 may be beveled or tapered off somewhat, as shown in Figs. 1 and 2, to substantially correspond with the angle of inclination of the flanges 16, 16 so that contact is secured therebetween along all or substantially all the under surface of the lugs 12. This extended frictional contact assists in holding the cover in place and preventing any tendency to backward rotation of the cover. To open the can it is only necessary to apply sufficient power to rotate the closure backward to the position where the lugs 12 come opposite the slots 17, whereupon the closure can be readily lifted off.

It will be seen that a closure in accordance with the invention affords a simple means of tightly closing containers, such as fruit jars and the like, requires no extra parts or mechanical operating means, being readily put on and removed by hand, and can be constructed and supplied so cheaply as that it may be thrown away after a single use, though, if desired, it may be reused a number of times without substantial depreciation, but in such case new gaskets or rubber rings are preferably supplied. If it

should happen that the flanges 16, 16, which contact with the lower surfaces of the lugs 12, should become spread so as not to hold the cover properly in place, it is readily possible to hammer or bend these flanges closer to the cover plate, the parts being made of sheet metal and not being injured by such treatment, and upon being so bent or hammered, the desired close fit of the cover can be readily obtained. Furthermore, the closure is substantially self-adjusting, as the sheet metal material of which it is formed can readily give and compensate for any slight inequalities which may be present, as, for example, slight inequalities in the formation of the holding lugs 12.

We claim:

The combination of a container having outwardly projecting narrow lugs on each side of its top, a closure made of a single sheet of comparatively thin metal and comprising a top plate with a downwardly projecting continuous marginal flange having on its bottom edge an inturned flange, the inturned flange being provided with narrow openings to receive the lugs, the parts of the inturned flange between the openings being inclined so as to approach the top plate in the same circular direction, the closure being adapted upon partial rotation to force the top plate to the top edge of the container and to provide a smooth peripheral edge to the closed container.

In testimony that we claim the foregoing, we hereto set our hands, this 16th day of February, 1918.

MICHAEL J. COONEY.
HENRY J. BENDER.

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