

June 29, 1926.

1,590,682

W. P. HART

RECEPTACLE CLOSURE

Filed Oct. 29, 1924

Fig. 1.

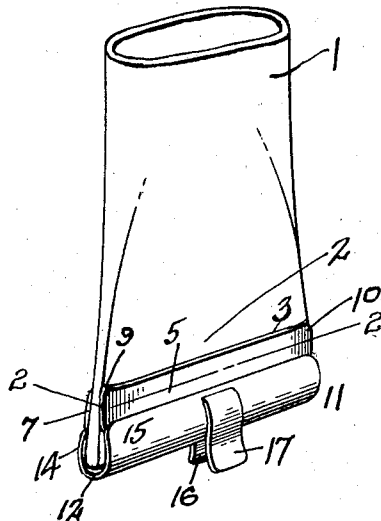


Fig. 3.

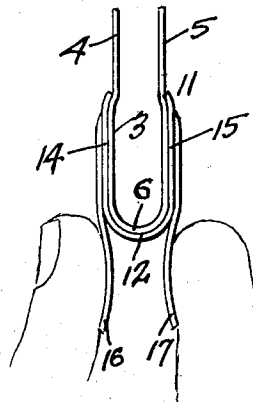


Fig. 2.

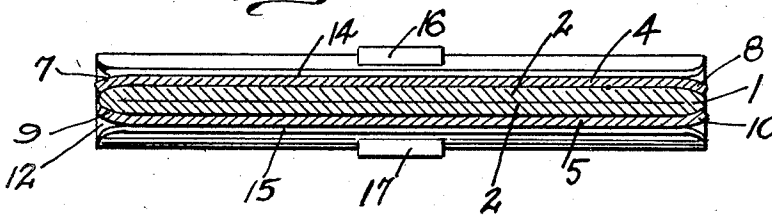


Fig. 4.

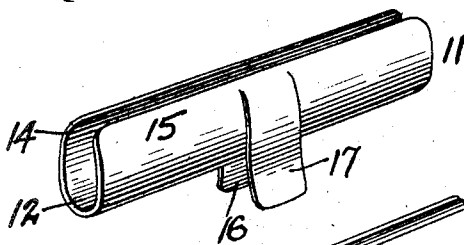


Fig. 5.

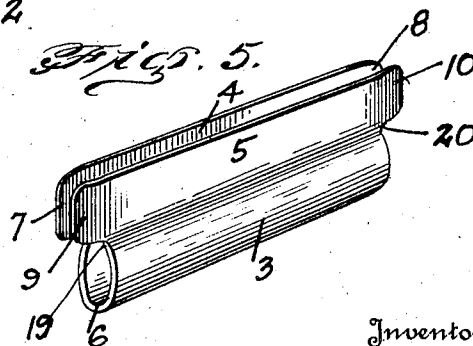
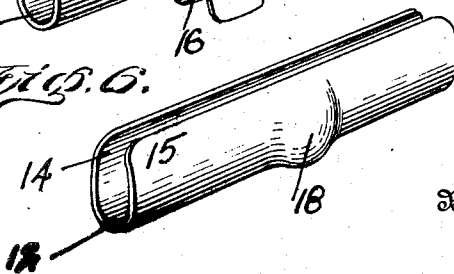


Fig. 6.



Inventor

William P. Hart

By

John B. Brady.

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM P. HART, OF SOUTHBRIDGE, MASSACHUSETTS.

RECEPTACLE CLOSURE.

Application filed October 29, 1924. Serial No. 746,694.

My invention relates broadly to receptacles and more particularly to a seal for receptacles.

One of the objects of my invention is to provide a closure for receptacles having flexible walls, the closure being so constructed that a liquid and air tight seal is insured.

Another object of my invention is to provide a closure for a receptacle wherein both a primary and secondary closure device is provided in cooperative relationship with respect to the walls of the receptacle for insuring an air and liquid tight seal for the receptacle.

Still another object of my invention is to provide a closure for a receptacle having walls which align substantially parallel with each other enabling a primary closure member to be clamped over the edges of the receptacle by movement in a longitudinal direction providing a guiding surface for a secondary closure member which may be slipped over the primary closure member by longitudinal movement upon the primary closure member for forcing the primary closure member into intimate contact with the walls of the receptacle insuring a substantially air and liquid tight seal for the contents of the receptacle.

A further object of my invention is to provide a closure for a receptacle having relatively soft flexible walls adapted to align with each other at one end, which closure may be readily placed upon the receptacle with minimum effort and labor on the part of the individual desiring to fill or close the receptacle.

My invention will be more fully understood from the specification hereinafter following by reference to the accompanying drawings, in which:—

Figure 1 is a perspective view showing the receptacle closure of my invention in position upon the end of a flexible walled receptacle; Fig. 2 is a cross-sectional view taken through the receptacle closure on line 2—2 of Fig. 1; Fig. 3 shows the relationship of the primary and secondary closure members looking at one end of the closure; Fig. 4 is a perspective view of the secondary closure member; Fig. 5 is a perspective view of the primary closure member; and Fig. 6 shows a modified construction of secondary closure member arranged to co-

operate with the primary closure member and slide longitudinally with respect thereto.

My invention finds particular application to flexible walled receptacles which have an open end through which contents are introduced and which end must be subsequently closed and rendered tight against air and liquid. Heretofore in the art such closures have been relatively complicated and have not been readily attachable or detachable from the receptacle. It is the purpose of my present invention to provide a pair of sealing devices for a receptacle to insure a substantial seal for the receptacle. I term these closure members, a primary and a secondary closure for the reason that the first or primary closure contacts directly with the end walls of the receptacle with a pair of substantially parallel extending side portions adapted to clamp the end walls of the receptacle therebetween. The primary closure member is substantially U-shaped in cross-section. This member is placed upon the end walls of the receptacle by flattening the walls together and then sliding the primary closure member over the said walls clamping the walls solidly together. The secondary closure member is also substantially U-shaped in cross-section of the same contour as said primary closure member. The secondary closure member is adapted to clamp the primary closure member by sliding longitudinally over a portion of the primary closure member. To facilitate the sliding of the secondary closure member upon the primary closure member I provide cutaway portions at opposite ends of the primary closure member and means on the secondary closure member for spreading the U-shaped side portions to a sufficient degree to eliminate to a large extent frictional contact between the walls of the primary closure member and the secondary closure member in the process of sealing or unsealing the receptacle.

Referring more particularly to the drawings, reference character 1 designates the flexible walled receptacle with the end walls flattened against each other as indicated at 2 and extending parallel one to the other. In order to force the end walls 2 in intimate contact with each other to form a seal for the receptacle I provide a primary closure member 3 substantially U-shaped in contour and having a pair of flat extending

side walls 4 and 5 connected by the longitudinally extending portion 6. The side wall 4 is curved inwardly at 7 and 8 at each end thereof, while the side wall 5 is curved inwardly at 9 and 10 at each end thereof for introducing forces throughout the sealing zone 2—2 of the receptacle and at the ends thereof to insure an air and liquid tight seal. The secondary closure member is shown at 11 formed in substantially U shaped contour corresponding to the contour of the primary closure member 3. The secondary closure member has a longitudinally extending portion 12 and side wall portions 14 and 15 which extend over the side wall portions 4 and 5 of the primary closure 3. In order to spread the side portions 14 and 15 of the secondary closure 11 to enable the secondary closure to be longitudinally placed upon the primary closure member 3 I provide finger pieces 16 and 17 which may be pressed inwardly by the fingers of the individual applying or removing the closure in order to relieve the inward pressure of the secondary closure upon the primary closure. In this condition the secondary closure is readily slid over the primary closure and then the pressure restored by removing the fingers from the grips 16 and 17.

Fig. 6 shows a modified construction of the secondary closure member wherein a central portion is enlarged as represented at 18 forming a finger grip to enable the secondary closure to be readily moved longitudinally over the primary closure. It will be observed that I provide a lead for the secondary closure upon the primary closure by cutting away the metal at the points 19

and 20 as represented in Fig. 5 enabling the secondary closure member to be moved over the primary closure member in a position below the sealing zone.

My invention has proved practical in construction and efficient in operation as applied as a closure for rubber receptacles and particularly as a closure for a nurser. In receptacles of this class it is desirable to have a readily removable closure device forming a tight seal and yet being simple and practical in construction. It will be understood that while my invention is particularly desirable with receptacles of this kind that I do not intend that it be limited for use with receptacles of any particular class and that modifications may be made and that no limitations upon the invention are intended other than those imposed by the scope of the appended claim.

What I claim and desire to secure by Letters Patent of the United States is as follows:—

A receptacle closure comprising in combination with a flexible receptacle having laterally separable sides, a U-shaped metallic member having a pair of normally parallel extending side portions arranged to clamp opposite sides of said receptacle together, said member having extended end portions bent towards each other for providing a sealing zone for said receptacle and a correspondingly shaped metallic clamp member arranged to slide longitudinally over said first mentioned member for maintaining a tight seal between said U-shaped metallic member and said receptacle.

WILLIAM P. HART.