June 16, 1942. W. C. RHEINFELS 2,286,508

CAPPED RECEPTACLE

Filed May 31, 1940

Fig. 1

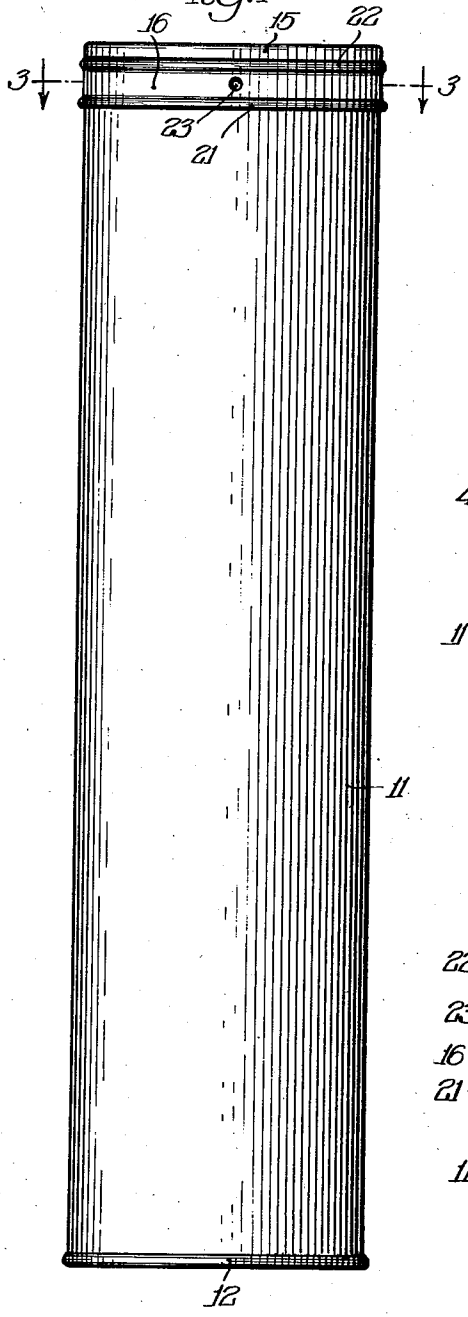


Fig. 2

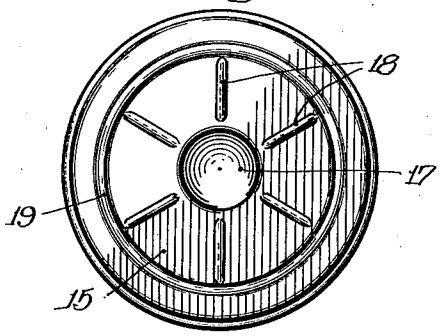


Fig. 3

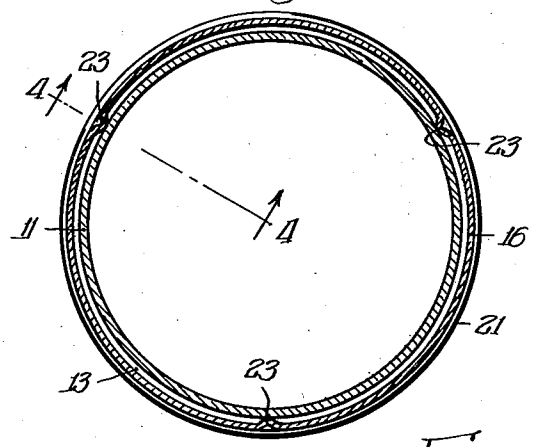
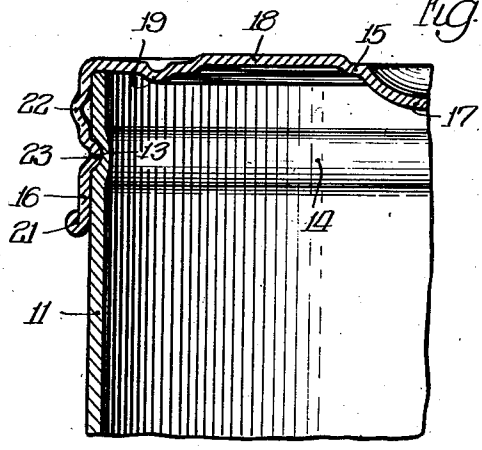


Fig. 4



INVENTOR.

Walter C. Rheinfels,

BY Walter M. Hullett

Patented June 16, 1942 2,286,508

UNITED STATES PATENT OFFICE

2,286,508

CAPPED RECEPTACLE

Walter C. Rheinfels, Maywood, Ill., assignor to W. C. Ritchie and Company, Chicago, Ill., a corporation of Illinois

Application May 31, 1940, Serial No. 338,115

1 Claim. (Cl. 229—5.5)

The present invention relates to certain features of betterment and advantage in containers or receptacles provided with caps or closures for their mouths and which are adapted to be removed and replaced as occasion requires to render the contents of the receptacle temporarily available.

One leading object of the invention is the provision of such a receptacle in which the cover or cap while readily removable is, when in place, sufficiently adequately firmly maintained thereon as to preclude its unintentional displacement or unseating, as, for instance, by falling off the body of the container.

Another aim of the invention is to supply a capped receptacle of the type specified which involves no additional parts other than the body of the container and that of the cap.

A further purpose of the invention is to furnish an article of the character stated in which the manufacturing cost is reduced to a minimum with resulting supply to the public at a relatively low price.

To enable those acquainted with this art to fully understand the invention both from structural and functional standpoints, a present preferred embodiment of the invention has been illustrated in the accompanying drawing forming a part of this specification and to which reference should be had in connection with the following detailed description and, for simplicity, like reference numerals have been employed to designate the same parts of the structure throughout the several views of the drawing.

In this drawing:

Figure 1 is an elevation of the improved construction;

Figure 2 is a top plan view of the container;

Figure 3 is an enlarged, horizontal cross-section on line 3—3 of Figure 1; and

Figure 4 is a still further, enlarged, fragmentary, longitudinal section on line 4—4 of Figure 3.

Reference to this drawing will indicate that the cylindrical wall 11 of the receptacle-body may be made of fibrous material such as pasteboard or comparable means, or may be made of several layers of paper or its equivalent wound convolutely, such wall, of course, having some degree of resiliency or elasticity.

The bottom or lower end of such container-body is closed by a metal-cap 12 of any suitable construction, whereas the outer surface of such body has a cylindrical, endless groove 13 rolled or otherwise formed in the exterior of the body parallel to the top mouth of the receptacle, which may, or may not, supply an internal shallow rib 14.

Such a rib has been shown in the drawing, but, in many instances, no rib of this character is formed even though the external groove is provided, due to the degree of softness of the material of which the body is made.

The removable or demountable metal-cap employed to close the top, otherwise-open mouth of the container at a right-angle to the axis of the main-body of the receptacle, has a round head 15 and a marginal, depending flange 16 adapted to fit snugly over the outer surface of the wall 11, such head, for stiffening and reenforcing purposes, having a central, depressed portion 17, a series of radial upstanding ribs 18, 18 and a circular internal rib 19, the flange 16 on its part having a curled, marginal, finishing-bead 21 and near the head a circular outstanding rib 22.

In addition, the flange has three, equally-spaced, inwardly-directed projections 23, 23 positioned to occupy the groove 13 when the cap is fully seated over the mouth of the container and bearing against the end of the body 11, as shown perhaps most clearly in Figure 4.

To apply the metal-cap to the fibrous-body, it is merely necessary to push the cap into place either longitudinally or spirally of such body, the flange surrounding the body and the projections 23, 23 entering the retaining-groove 13, the body yielding enough to permit such application of the cap whereupon, the cap can be turned to bring its projections into positions in the groove out of register with their paths of entry thereinto to more securely hold the cap in place on the body.

The firmness and security with which the cap is held and maintained in such mouth-closing position is perhaps greater than would casually be expected, the fact being that the cap thus held in position is wholly free from undesigned or accidental removal.

The taking off of the cap to render the contents of the container accessible may be accomplished by merely pulling the cap off directly longitudinally of the receptacle, that is in the direction of its axis, but owing to the steadfastness and certainty with which the cap is normally preserved in operative relation on the body, a spiral upward turning and withdrawal movement of the cap facilitates its removal.

This invention, as incorporated in the specific example presented and to which it is not limited,

is set forth in the appended claim, but it will be apparent to those acquainted with this art that many major or minor mechanical changes may be resorted to without departure from the principles of the invention and without the loss of any of its substantial benefits or the sacrifice of any of its material advantages.

I claim:

In a receptacle having a cylindrical container-body of a compressible material and a removable metal-cap therefor adapted to close the end mouth of said body and having a marginal flange to slide over and to snugly fit over the outside of a portion of said body when the cap is applied in place thereon, the novel combination of an endless circular groove in the outer surface of the material of said body parallel to said mouth, and a plurality of inwardly-directed projections on the inner face of said cap-flange at like distances from the head of the cap and circularly spaced apart and so positioned that when the cap is applied to said body, either directly longitudinally or spirally thereof, said projections compress the material of said body until they enter said groove whereupon said cap may be turned to cause said projections to shift in said groove to bring them out of register with their paths of travel prior to their entry into said groove to prevent unintentional removal of the cap, said groove also facilitating the initial part of a spiral removal of said cap from said container-body.

WALTER C. RHEINFELS.