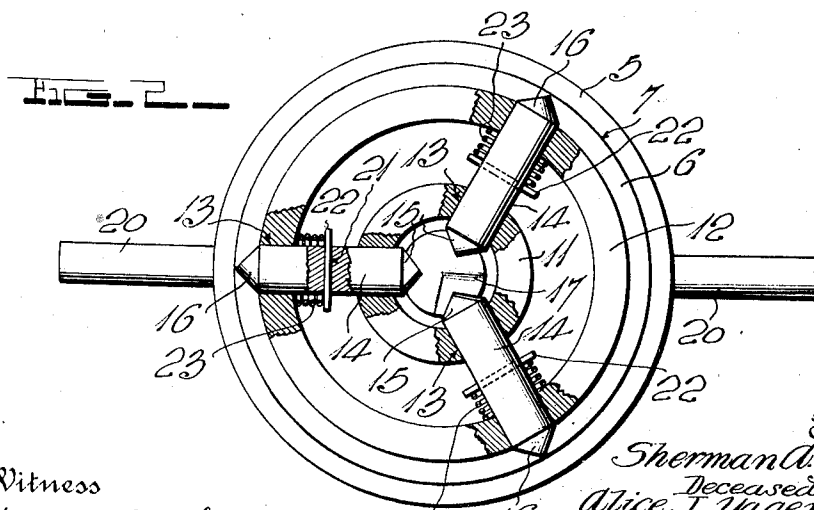
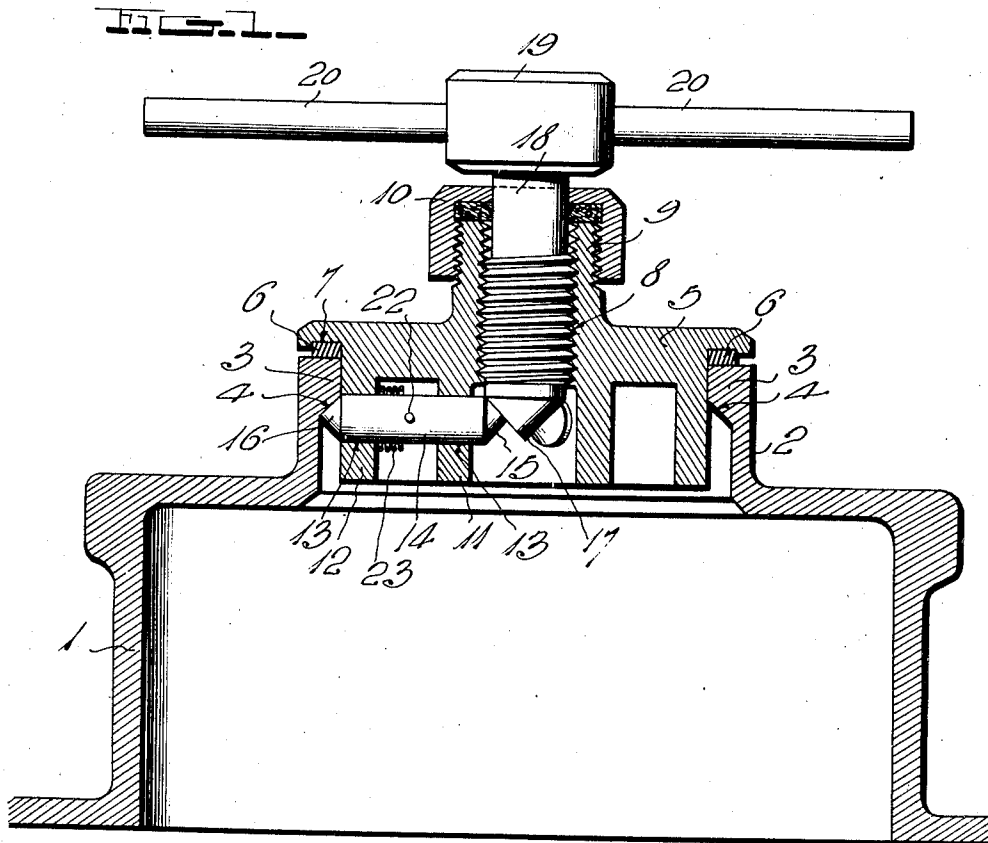


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S. A. YAGER
RECEPTACLE CLOSURE
Filed Oct. 3, 1924



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UNITED STATES PATENT OFFICE.

SHERMAN A. YAGER, DECEASED, LATE OF PASADENA, CALIFORNIA; BY ALICE J. YAGER, ADMINISTRATRIX, OF PASADENA, CALIFORNIA.

RECEPTACLE CLOSURE.

Application filed October 3, 1924. Serial No. 741,364.

To all whom it may concern:

Be it known that SHERMAN A. YAGER, deceased, late a citizen of the United States, a resident of Pasadena, in the county of Los Angeles and State of California, has invented certain new and useful Improvements in Receptacle Closures; and I, ALICE J. YAGER, a citizen of the United States, and residing at Pasadena, in the county of Los Angeles and State of California, the duly-constituted administratrix of the estate of SHERMAN A. YAGER, deceased, do hereby declare the following to be a full, clear, and exact description of the said invention of said decedent, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in devices for closing numerous kinds of receptacles, and the present disclosure is directed to a gas and liquid-tight closure, the object being to provide an exceptionally simple and inexpensive, yet a highly efficient and desirable arrangement of parts whereby the closure or cap may be held tightly shut without the necessity of using a wrench or other tool, the construction being such that said closure or cap may be removed with equal ease.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawing.

Figure 1 is a vertical sectional view showing the invention.

Figure 2 is a lower end view of the closure, partly broken away and in horizontal section.

In the drawing above briefly described, the numeral 1 designates a portion of a receptacle having a filling neck 2 which is provided at its upper edge with an inwardly extending continuous rib 3 having a beveled lower side 4. The numeral 5 designates a cap or closure for the neck, the edge portion of this closure overlying the neck and being preferably provided with an appropriate gasket 6 which may well be set into a groove 7. The closure 5 is provided with a central or axial opening 8 whose wall is screw-threaded, and in the preferred form of construction, said closure is provided on

its outer side with a central boss 9 through which the opening 8 passes, the outer end of said boss being provided with a packing gland 10.

The inner side of the closure 5 is provided with inner and outer continuous flanges 11 and 12 which are spaced from each other, said flanges being concentric with the opening 8. The outermost of these flanges is adapted for reception in the neck 2, to properly locate the closure with respect thereto, and the two flanges are provided with radially alined openings 13 which are preferably formed by drilling. Passing slidably through these radially alined openings are a number of radial pins 14 which are preferably of cylindrical form, said pins having beveled or pointed inner and outer ends 15 and 16 respectively, said outer ends being adapted for engagement with the beveled lower side 4 of the rib 3, while the ends 15, co-act with the pointed inner end 17 of an operating screw 18, said screw being threaded into the opening 8 and having its upper portion embraced by the stuffing gland 10, in a fluid-tight manner. The upper end of the screw 18 is shown as provided with a head 19 and a pair of oppositely projecting handles 20, by means of which it may be rotated.

Between the flanges 11 and 12, the pins 14 are formed with transverse openings 21 through which transverse pins 22 pass, the ends of said pins 22 projecting from the ends of the pins 14. Coiled compression springs 23 surround the pins 14 and have their ends disposed in contact with the inner side of the flange 12 and the projecting ends of the pins 22 so that said springs exert a constant force to slide the pins 14 inwardly to released position. By threading downwardly upon the screw 18 however, its pointed end 17 engages the inner ends 15 of the pins 14 and thus wedges the latter outwardly so that their beveled outer ends 16 will slide down the beveled lower side 4 of the rib 3, and draw the cap tightly in place. As soon as the screw 18 is loosened, the springs 23 come into play to retract the pins 14, so that the cover may be quickly and easily removed.

As excellent results are obtainable from the details disclosed, they are preferably

followed, but within the scope of the invention as claimed, modifications may of course be made.

What is claimed is:—

5 1. A closure comprising a disk having an axial opening and provided on its inner side with inner and outer continuous flanges which are concentric with said opening, said flanges being formed with radially alined
10 openings, a plurality of pins received slidably in said radially alined openings and having beveled inner and outer ends projecting from said inner and outer flanges, and a screw threaded through said axial
15 opening and having a pointed inner end engaging the beveled inner ends of said pins to project the latter when the screw is threaded inwardly.

20 2. A closure comprising a disk having an axial opening and provided on its inner side with inner and outer continuous flanges which are concentric with said opening, said

flanges being formed with radially alined openings, a plurality of pins received slidably in said radially alined openings and
25 having beveled inner and outer ends projecting from said inner and outer flanges, said pins having transverse openings between said flanges, transverse pins passing through said transverse openings of the first
30 named pins, coiled compression springs surrounding said first named pins and abutting the outermost of the aforesaid flanges and said transverse pins to exert an inward
35 force on said first named pins, and a screw threaded through said axial opening and having a pointed inner end engaging the beveled inner ends of said first named pins to project the latter when the screw is
40 threaded inwardly.

In testimony whereof, I have hereunto affixed my signature.

Alice J. Yager,
Administratrix.