June 5, 1951 F. E. SEUFER 2,555,459

RECIPROCATORY CLOSURE FOR BOTTLES OR TUBES

Filed Nov. 21, 1946

Fig. 2.

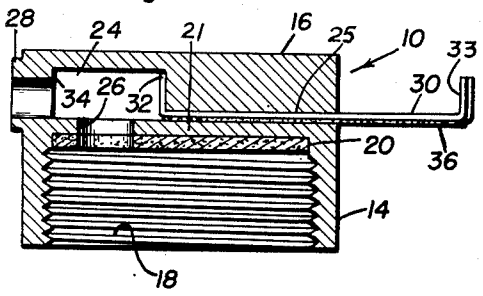


Fig. 3.

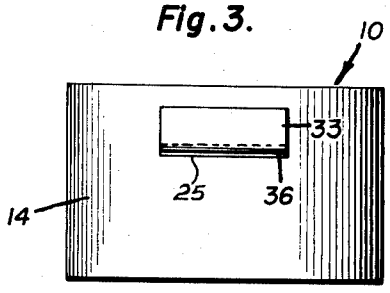


Fig. 6.

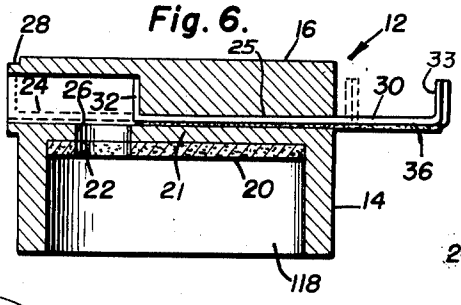


Fig. 7.

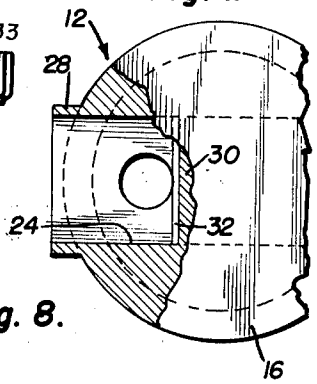


Fig. 1.

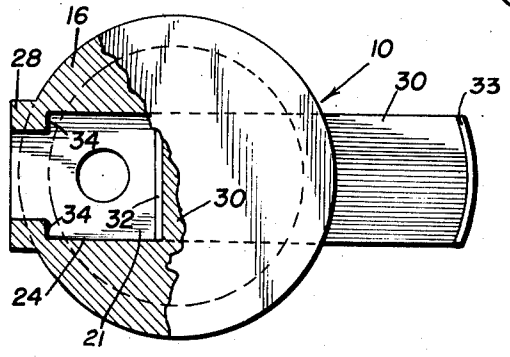


Fig. 8.

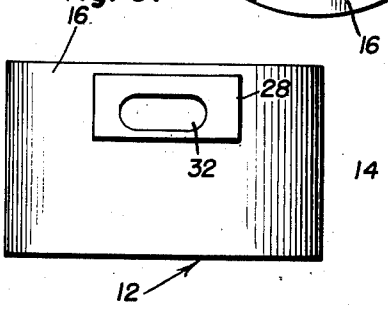


Fig. 4.

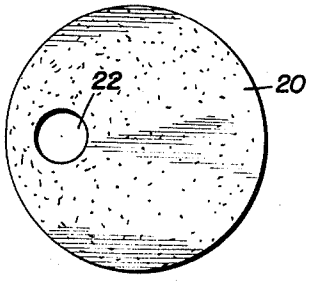
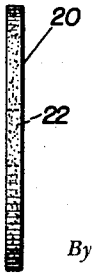


Fig. 5.



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RECIPROCATORY CLOSURE FOR BOTTLES OR TUBES

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Application November 21, 1946, Serial No. 711,375

2 Claims. (Cl. 222—561)

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This invention relates to improvements in closure devices adapted to selectively open and close the usual aperture in bottles, tubes, and the like.

The prime objects of this invention are to provide a device for selectively opening and closing receptacles which is efficient, simple, and inexpensive and to provide a device of improved construction capable of ease of operation and which is adaptable for use with a multiplicity of types of containers including shaving cream tubes, metallic containers, hair tonic bottles, and the like.

The invention resides in the novel combination and arrangement of parts, and in support thereof the improved operation thereof. Preferred embodiments of the instant invention are disclosed herewith, wherein—

Figure 1 is a plan view partly broken away in section, showing one embodiment of the instant invention;

Figure 2 is a transverse vertical sectional view of Figure 1;

Figure 3 is an elevational view of Figure 1, showing an end view of the slidable valve forming part of the instant invention;

Figure 4 is a plan view of a gasket designed especially for use in the present invention;

Figure 5 is an end view of the gasket shown in Figure 4;

Figure 6 is a sectional view of a modified form of the invention;

Figure 7 is a plan view, partly in elevation, partly broken away and partly in section, showing the modified form of the invention; and

Figure 8 is an end view of Figure 1, showing the spout in connection therewith.

Referring now to the drawing more in detail for a complete understanding of the preferred embodiments of the invention herein disclosed, wherein like reference characters indicate similar elements throughout the views of the invention, the reference numeral 10 and the reference numeral 12 are used to designate, in a general way, two embodiments of the instant inventive concept.

Taking, now, in detail the embodiment of Figures 1 through 5 and 8, a generally cylindrical housing 14 with one planar end 16 closed, composed of any suitable material such as decorative commercial plastic, light metal or the like, is provided with friction screw threads 18 in the bore thereof adapted to receive receptacles such as bottles, cans, or tubes, and the like. A gasket 20 having an off-centered aperture 22 of predetermined size and configuration therein is secured in the innermost portion of the bore of the housing and on the bottom wall 21 of said housing. It is here noted that the said gasket is used to form a more effective seal between a container and the said housing 14.

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An aperture 24 extends radially of said housing, and in communication therewith is an off-centered, axially extending aperture 26. It is here noted that a convenient spout 28 is provided on said housing 14 which communicates with the said aperture 24.

A slot 25 is provided as a continuation of the said aperture 24 extending completely through the top portion 16 of the said housing. In said slot 25 is a channel-shaped valve 30 having one leg 32 located in the said aperture which communicates with shoulder 34 of the spout 28 for selectively closing the same. The other leg 33 of the valve 30 is disposed exteriorly of the slot 25 and the housing 14. Beneath said channel-shaped valve 30 and secured thereto is a gasket runner 36 of a suitable material for sealing the aperture 26.

The operation of this embodiment of the invention is now believed obvious. After the device is secured to a bottle or the like, the aperture 26 is in direct communication with the contents of the bottle and can be selectively opened and closed. It is noted that by this construction a convenient spout is provided for pouring.

Taking, now, Figures 4 to 7, a second embodiment of the present invention, like reference characters refer to similar elements. Each element is identical to the first embodiment of the invention except the following. The bore 118 is adapted to frictionally slide on containers and the like. This feature is especially useful in connection with tooth-paste tubes and the like, since the tops are malleable and all that is required for clamping is to slip or force the device thereon. The aperture 24 does not extend back as far in the second embodiment as the first, and the shoulders 34 and associated inner portion of the spout are not present therein.

The operation of this embodiment of the invention is similar to the operation of the first embodiment of the invention. However, this form of the invention functions admirably when used with tooth-paste and shaving cream, it being noted that the leg 32 pushes the paste or cream out of the container.

While there is described and illustrated but preferred embodiments of the instant invention, it is apparent to those skilled in the art that numerous changes could be made herein without

departing from the spirit and scope of this invention as set forth in the accompanying claims. Limitation is therefore desired only in accordance with the scope of the appended claims.

Obviously, the screw securing means displayed in the embodiment of Figures 1 to 3 and 8 may be used in the second embodiment and the friction clamping means shown in Figures 4 to 7, may be used in the first embodiment of the invention.

Having thus described the present invention, what is claimed is:

1. A device for selectively opening and closing containers comprising a housing having an unobstructed top surface, threads in said housing adapted to fasten said housing to a container adjacent its usual opening, said housing having a radially disposed aperture and a slot forming an aligned continuation of said aperture, a bottom wall in said housing disposed above said threads and having a second aperture axially offcentered in said housing and in communication with said radially disposed aperture and adapted to communicate with the interior of the container, means in said slot for selectively opening and closing said second aperture, said lastmentioned means comprising a substantially channel-shaped member with one leg adapted to abut the confines of the said radially disposed aperture, thereby defining the limits of travel of said member, the other leg of said member disposed exterior of the housing and forming a finger grip, a first gasket secured to said channel-shaped member between said legs, and a second gasket with an aperture adapted to mate said second aperture secured in said housing.

2. A device for selectively opening and closing containers comprising a housing having an unobstructed top flat surface and an arcuate side, frictional securing means in said housing adapted to fasten said housing to a container adjacent its usual opening, said housing having a radially disposed aperture and a slot extending through the side opposite said aperture and forming an aligned continuation of said aperture, a bottom wall in said housing disposed above said securing means and having a second aperture axially off centered in said housing and in communication with said radially disposed aperture and adapted to communicate with the interior of the container, means in said slot for selectively opening and closing said second aperture, said last mentioned means comprising a flat member slidably disposed in said slot with a leg secured at one end thereof adapted to abut the confines of said radially disposed aperture, thereby defining the limits of travel of said member, and the other end of said member disposed exteriorly of said housing for operating said flat member.

FREDERICK E. SEUFER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,420,861	Porter et al.	June 27, 1922
1,713,043	Fullerton	May 14, 1929
2,210,776	Polkingham	Aug. 6, 1940