

Nov. 6, 1928.

1,690,804

F. G. WIKSTROM

CLOSURE

Original Filed March 31, 1927

Fig. 1.

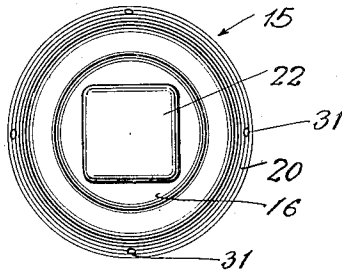


Fig. 2.

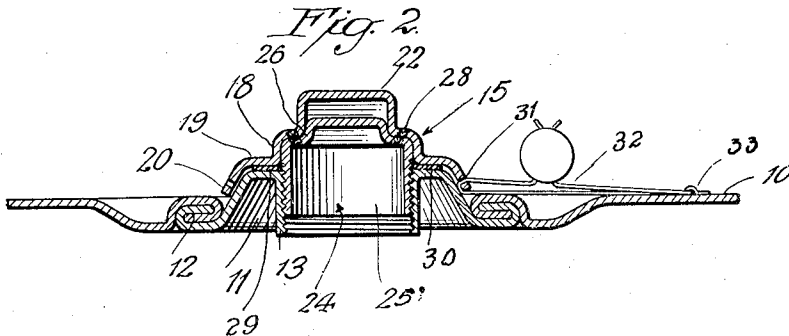
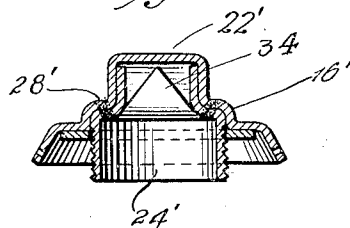


Fig. 3.



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UNITED STATES PATENT OFFICE.

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CLOSURE.

Original application filed March 31, 1927, Serial No. 179,733. Divided and this application filed January 13, 1928. Serial No. 246,438.

This invention relates to closures for containers, and is herein shown applied to a metallic barrel head, although it may, of course, be used on any container wall.

One of the objects of the invention is to provide an improved closure or cap in which the component elements are so designed as to enable them to be economically and otherwise satisfactorily made by stamping operations and to provide a closure which is strong, durable and reliable in use.

This application is a division of my co-pending application, Serial No. 179,733, filed March 31, 1927.

The invention will be understood from the following description taken in connection with the accompanying drawings in which Figure 1 is a plan view of one form of cap; Figure 2 is a sectional view taken on line 2-2 of Figure 1 showing the cap threaded into a sput or cap seat interlocked with a container wall; and Figure 3 is a central vertical sectional view of a modified form of cap also adapted for screw-threaded engagement with the sput of Figure 2.

Referring to the drawings, the numeral 10 indicates a barrel head provided with a bung sput 11, herein shown as constructed from sheet metal and having interlocking engagement with the barrel head at 12. The sput 11 is provided with a depending internal screw-threaded flange 13, adapted to receive the screw-threaded element of the closures embodying this invention. This sput and sput construction are described and claimed in my co-pending application, Serial No. 222,409, filed September 28, 1927.

Referring to Figures 1 and 2, the numeral 15 indicates a stamped metal cap which includes a cover or top member 16 having an outwardly and downwardly projecting circular shoulder 18, carrying a horizontal gasket-supporting portion 19 from which downwardly projects an annular flared skirt 20. The top member 16 is provided with an upwardly projecting wrench-receiving portion 22 to which a suitable tool, such as a wrench, may be applied to screw the cap down into closing position, in the sput.

With the top member 16 is associated a sheet metal cup-shaped bottom member 24 having an end wall and an externally screw-threaded cylindrical portion 26. The bottom member 24 is adapted to snugly fit into the

depressed portion of the top member 16 bounded by the circular shoulder 18 so as to center said bottom member with respect to the top member 16 and facilitate assembling of these two parts.

In order to establish an interlocking connection between the bottom member 24 and the top member 16, the end wall of the bottom member is provided with an upwardly extending drawn central portion 26 adapted to enter the upwardly projecting portion 22 of the top member 16. In addition to the reinforcement against turning which is afforded by reason of such interlocking, the cup-shaped bottom member 24 and top member 16 are further secured against relative rotation as well as separation by spot welding these two parts together at spaced intervals as indicated at 28.

By applying a suitable tool, such as a wrench, to the square portion 22 of the top member 16, the cap may be easily screwed down into the sput 11 so that the gasket-supporting portion 19 of the top member 16 is forced into firm engagement with a suitable gasket 29 surrounding the cup-shaped bottom member 24 and such gasket is in turn forced into intimate engagement with the gasket seat 30 of the sput 11.

If desired, the outwardly and downwardly projecting annular flared skirt 20 may be provided at intervals near its edge with perforations 31 adapted for the reception of a suitable sealing wire 32 which may be anchored to the container wall by a yoke 33 welded or otherwise suitably connected to the container wall.

The cap shown in Figure 3 is also adapted for use in connection with the sput shown in Figure 2 and is of substantially the same construction as the cap shown in Figures 1 and 2 except that the bottom member 24' instead of being closed at its top, is provided with a plurality of tongues 34 which are adapted to project into the upwardly projecting portion 22' of the cover 16', and engage the side walls thereof. These tongues 34, like the upwardly projecting portion 26 of the cup-shaped bottom member 24, shown in Figure 2, serve to establish an interlocking connection between the top member 16' and the bottom member 24'. The top member 16' and bottom member 24' are permanently connected together by a plurality of spot welds 28'

which serve in conjunction with the tongues 34 to resist turning of the bottom member 24' with respect to the cover 16' and also to secure the members 16' and 24' against separation.

It will be understood that changes and modifications may be made in the construction shown and above particularly described without departing from the spirit of the invention or the scope of the following claims.

What is claimed is:

1. A closure comprising a sheet metal top member having an upwardly projecting wrench-receiving central portion, and an outwardly extending gasket-supporting portion; and a sheet metal bottom member having an externally threaded cylindrical portion and an upwardly extending central portion adapted to enter the upwardly projecting wrench-receiving portion of said top member; said top and bottom members being welded together.

2. A closure comprising a sheet metal top member having an upwardly projecting wrench-receiving central portion, and an outwardly extending gasket supporting portion; and a bottom member having an externally threaded cylindrical portion and an upwardly extending central portion substantially conforming to the lateral internal configuration of the wrench receiving portion of said top member and nesting therein; said top and bottom members being welded together.

3. A closure comprising a sheet metal top

member having an upwardly projecting wrench-receiving central portion, an outwardly and downwardly extending circular shoulder portion, and a gasket-supporting portion extending outwardly from said shoulder portion; and a bottom member having an externally threaded cylindrical portion having a diameter substantially equal to the internal diameter of the shoulder portion of said top member, and provided with an upwardly extending central portion adapted to enter the upwardly projecting wrench-receiving portion of said top member; said top and bottom members being welded together.

4. A closure comprising a sheet metal top member having an upwardly projecting wrench-receiving central portion, an outwardly and downwardly extending circular shoulder portion, and a gasket supporting portion extending outwardly from said shoulder portion; and a bottom member having an externally threaded cylindrical portion having a diameter substantially equal to the internal diameter of the shoulder portion of said top member and provided with an upwardly extending central portion substantially conforming to the lateral internal configuration of the wrench receiving portion of said top member and nesting therein; said top and bottom members being welded together.

In testimony whereof, I have affixed my signature to this specification.

FRANK G. WIKSTROM