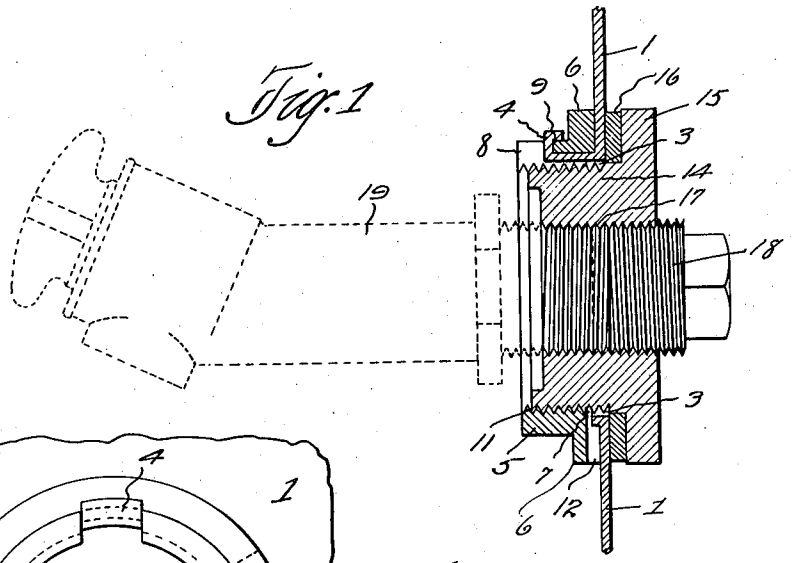
Oct. 28, 1924. 1,513,516

F. E. McCABE ET AL

BUNG AND BUNG BUSHING

Filed April 4, 1921

Fig. 1



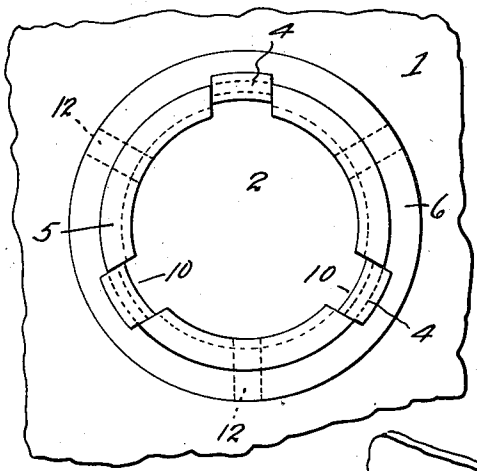


Fig. 2

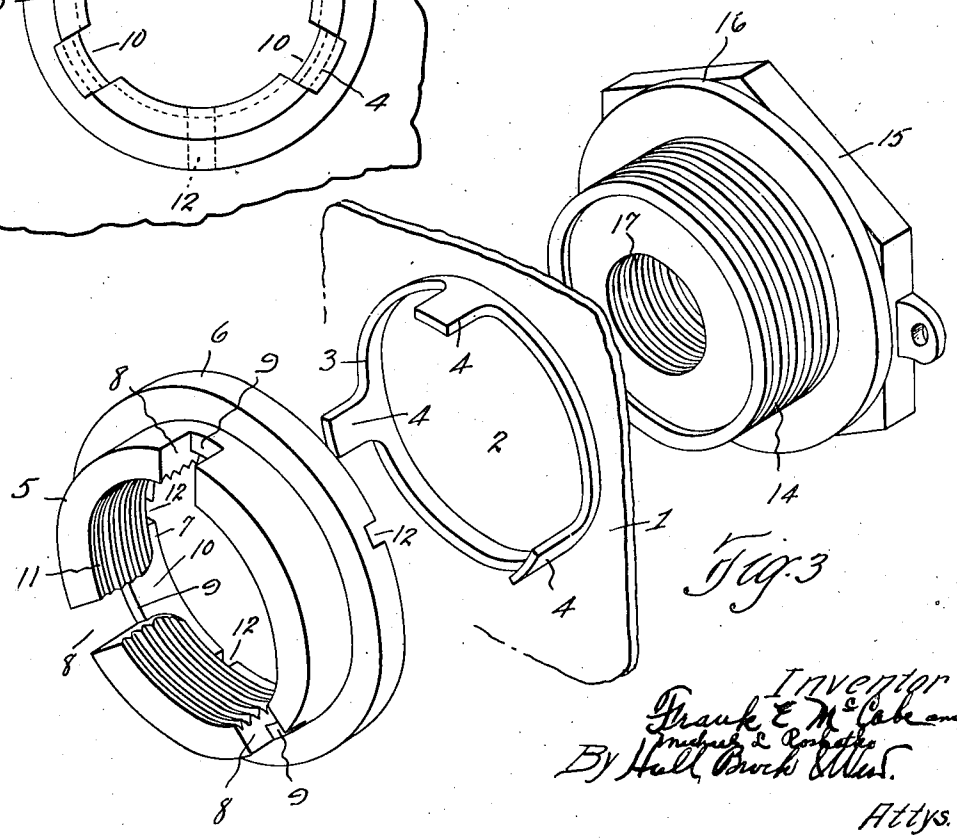


Fig. 3

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Patented Oct. 28, 1924. 1,513,516

UNITED STATES PATENT OFFICE.

FRANK E. McCABE, OF CHAGRIN FALLS, AND MICHAEL L. ROSHETKO, OF CLEVELAND, OHIO, ASSIGNORS TO THE GRABLER MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

BUNG AND BUNG BUSHING.

Application filed April 4, 1921. Serial No. 458,497.

To all whom it may concern:

Be it known that we, (1) FRANK E. McCABE and (2) MICHAEL L. ROSHETKO, citizens of the United States, residing at (1) Chagrin Falls, (2) Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Bungs and Bung Bushings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to sheet metal barrels or containers, or to containers involving sheet metal parts to which the bung bushing is attached, and it has particular reference to a novel form of bushing and a unique means for attaching the same to the sheet metal parts in a manner similar to, but constituting an improvement over that described in an application, Serial No. 434,089, filed December 30, 1920, by Frank E. McCabe.

The principal object of the present invention is to provide a simple and inexpensive construction through which the bung bushing may be attached quickly and in a particularly convenient manner, the same representing a material saving of time, labor and expense over the methods at present employed.

Another object is to provide a bung bushing of the aforesaid character which shall include means for draining the entire contents of the container even including the small quantity usually retained by reason of a portion of the bung flange projecting into the interior of the container.

A still further object is to provide a bung bushing and plug therefor which shall include means for carrying a faucet or other suitable dispensing device on the interior of the container and which dispensing device may be easily removed and attached to the exterior side of said plug when ready for use, thereby eliminating the need of a separate attaching bushing in the container.

With these and other objects in view the invention consists in the various novel features of construction and combination of parts described hereinafter and pointed out in the claims.

In the accompanying drawing wherein we have shown the present preferred embodiment of our invention, Fig. 1 is a vertical sectional view through the bung bushing and plug illustrating the same attached to a wall of a sheet metal container; Fig. 2 is an inside view of the bushing applied to the wall of the container; and Fig. 3 is a perspective view of the bushing, a section of the container wall, and plug, in separated condition.

The sheet metal wall 1 of the container is provided with a bung hole 2, the sheet metal defining the periphery thereof being turned inwardly to form a shallow flange or lip 3, from which project the securing lugs 4.

The bushing indicated at 5 is cylindrical in form and is provided with a flange 6 which is counterbored as indicated at 7 so that said bushing may be placed over the bung hole 2, in such manner that the flange 6 will engage the wall of the container and the flange or lip 3 will fit within said counterbore. The cylindrical body portion of the bushing is provided with a plurality of notches 8 which are adapted to register with the lugs 4. These notches extend from the inner edge of the body portion which projects within the container, to within a short distance of the flange 6 to define shoulders 9, and on the inner side said shoulders are recessed as indicated at 10 to permit the lugs 4 to lie below the surface of the internal thread 11 within said body portion. The surface of the flange 6 which engages the sheet metal wall of the container is formed with a plurality of radial grooves 12 so that the entire contents of the container may be easily drained.

In attaching the bung bushing to the sheet metal wall, the bushing is positioned over the opening 2 so that the lugs 4 will register with the notches 8. The flange 6 will engage the sheet metal wall of the container and the lip 3 will project within the counterbore 7. The lugs 4 are then bent around the shoulders 9 as shown in Fig. 1, thereby securing the bushing to the container in a simple and convenient manner which may be accomplished manually or by machine.

The filling plug 14 is externally threaded to engage the internal thread 11 and is provided with a head 15 which may be suitably shaped to receive a wrench. A washer 16 is interposed between the head 15 and the outer wall of the container to prevent leak-

age. We preferably form the plug 14 with a straight threaded bore 17 extending therethrough and close said bore on the exterior side of the plug with a small taper threaded plug 18 and utilize the remainder of said bore to carry a faucet 19 (indicated in dotted lines in Fig. 1) in the interior of the container during transportation and storage thereof. When it is desired to make the container ready for use, the filling plug 14 is removed, the faucet and small plug 18 disconnected therefrom and the faucet is then attached to the exterior side of the filling plug, and the plug and faucet attached to the bung flange. Thus it is apparent that we eliminate the need of a separate bushing in the container for attaching the faucet and hence avoid the expense of providing two bushings in the container and also reduce the possibilities of leakage which is apt to occur at the bushings. The small plug 18 might be dispensed with as the faucet 19 could be closed tightly and thereby prevent leakage. However, we prefer to use the plug 18 as a safeguard against leakage of the faucet and also to keep foreign matter from entering therein during shipment.

Having thus described our invention, what we claim is:—

1. In a construction of the character set forth, the combination of a sheet metal wall having an opening and a plurality of lugs projecting from the edge of the opening, and a bushing applied to the wall in register with the opening and having notches therein for receiving said lugs, said notches terminating short of said wall to define shoulders, said lugs being offset laterally in said notches for securing said bushing in place.

2. In a construction of the character set forth, the combination of a sheet metal wall having an opening, a lip projecting inwardly about said opening, a plurality of lugs extending from the lip, and a bushing adapted to receive the lip and having notches therein for receiving said lugs, said notches terminating short of said wall to define shoulders, said lugs being offset laterally in said notches for securing said bushing in place.

3. In a construction of the character set forth, the combination of a sheet metal wall having an opening surrounded by an inwardly directed lip from the edge of which project a plurality of lugs, a cylindrical bushing having a flange at one end arranged to fit against said wall and counterbored to receive said lip, the diameter of the counterbore being greater than the internal diameter of the bushing, a plurality of notches formed in said cylindrical bushing and terminating short of said flange, thereby to define shoulders, the inner surface of said shoulders being recessed to receive said lugs, and said lugs being offset laterally over said shoulders to secure said bushing in place.

4. In a construction of the character set forth, the combination of a sheet metal wall having an opening and a plurality of lugs projecting from the edge of the opening, a cylindrical bushing applied to the wall in register with the opening, said bushing having notches therein terminating short of said wall to define shoulders, and said lugs being offset laterally over said shoulders to secure said bushing in place.

5. In a construction of the character set forth, the combination of a sheet metal wall having an opening and a plurality of lugs projecting from the edge of the opening, a cylindrical bushing applied to the wall in register with the opening, said bushing having notches terminating short of said wall to define shoulders, the inner surface of said shoulders being recessed to receive said lugs and said lugs being offset laterally over said shoulders to secure said bushing in place.

6. In a construction of the character set forth, the combination of a sheet metal wall having an opening, of a bushing secured to said wall in register with said opening, and a plurality of recesses formed between said bushing and said wall and communicating with said opening and the interior of the container.

7. In a construction of the character set forth, the combination of a sheet metal wall having an opening, of a bushing secured to said wall in register with said opening and having a flange contacting with said wall and bordering said opening, and a plurality of recesses formed in the contacting face of said flange and communicating with said opening and the interior of the container.

In testimony whereof, we hereunto affix our signatures.

FRANK E. McCABE.
MICHAEL L. ROSHETKO.