G. B. PICKOP.

BUNG RING OR SPUD.

APPLICATION FILED JUNE 27, 1916.

Patented Jan. 9, 1917.

1,211,486.

Fig. 1.

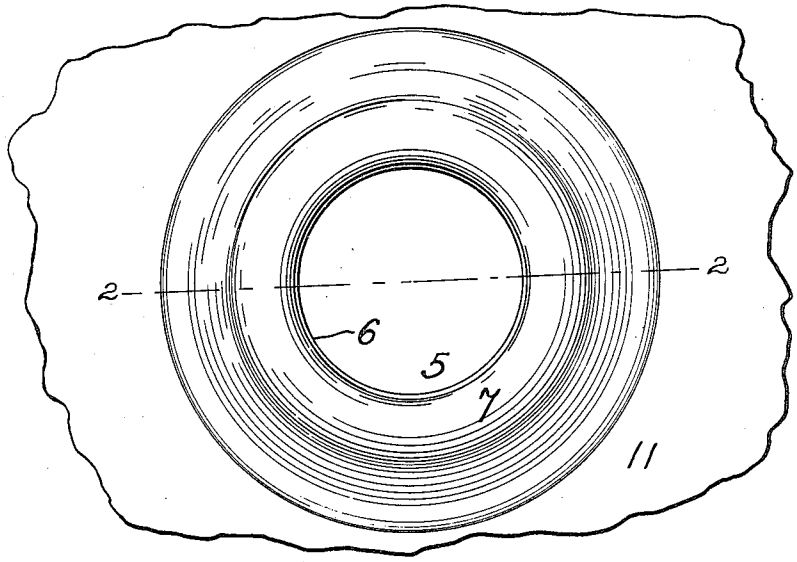


Fig. 2.

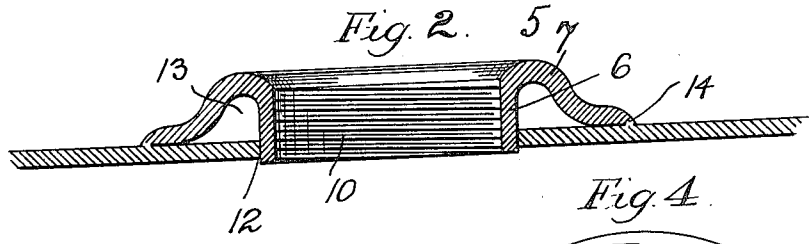


Fig. 4.

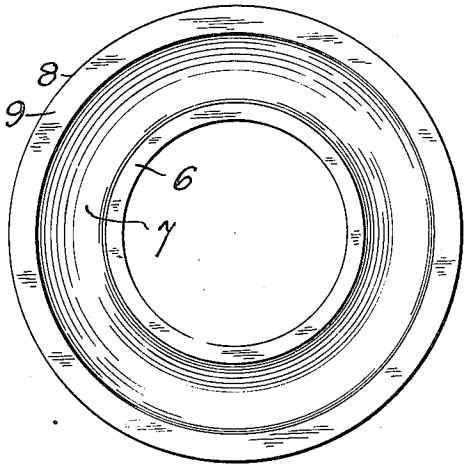
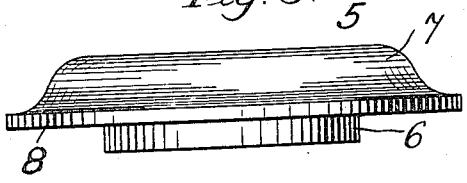


Fig. 3.



WITNESS

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BUNG-RING OR SPUD.

1,211,486. Specification of Letters Patent. Patented Jan. 9, 1917.

Application filed June 27, 1916. Serial No. 106,253.

To all whom it may concern:

Be it known that I, GEORGE B. PICKOP, a citizen of the United States, residing in the city and county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Bung-Rings or Spuds, of which the following is a full, clear, and exact description.

This invention relates to a spud or bung ring applicable to metal barrels, tanks and other containers, and while my improvements are especially intended to furnish a spud or bushing for the bung of a metal barrel, I do not wish to limit myself in this connection.

The primary object of the invention is to provide a bung ring or spud which can be readily formed from sheet metal, whereby the process of manufacture is considerably simplified; which can be easily applied to the barrel or other container; and which in spite of the relatively thin metal employed in its construction has great strength to resist the blows and hard usage to which articles of this class are subjected.

To these and other ends, the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawing, Figure 1 is a top plan view of a bung ring or spud embodying my improvements, showing the portion of the barrel or other container to which the ring or spud is applied; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a side elevation of the spud prior to its application to the container; and Fig. 4 is a bottom view of Fig. 3.

My improved spud or bung ring 5 is made of sheet metal and it is pressed into shape from a single disk-like blank by means of suitable dies. It comprises an inner substantially cylindrical sleeve 6 which is turned over at its upper part, as shown at 7, to form a crowned flange. In forming this flange, the metal at the top of the sleeve is bent upward and outward, and then downward and outward, as shown more particularly in Fig. 3. The lower part of the flange is in the form of a relatively narrow horizontal rim 8 having a plain side edge and a flat under surface 9. As will be observed from Fig. 3, the rim 8 is located somewhat above the lower edge of the sleeve 6, and in practice the distance from the lower edge of the sleeve to the plane of the lower surface 9 of the rim corresponds approximately to the thickness of the wall of the barrel or other container. The interior surface of the sleeve portion 6 is provided with screw threads 10 to receive the bung or other part in connection with which the spud is used. These threads extend almost but not quite to the top of the spud.

In applying this spud, the wall 11 of the metal barrel or other container is cut to form a round opening 12 of such diameter that the sleeve portion 6 of the spud will enter it with a very tight fit. In fact, it is best to cut a hole 12 of such diameter that the spud has to be driven into the hole, and then the lower outer surface of the sleeve portion 6 will fit the barrel hole so tightly as to prevent leakage of any liquid between the wall 11 and the sleeve portion. In this manner, liquid is prevented from entering the annular space 13 beneath the crowned flange 7, which is a feature of considerable importance. Downward movement of the sleeve portion 6 in the hole 12 is limited by the lateral rim 8 of the flange. The under surface 9 of the rim abuts the top surface of the wall 11 and makes a tight fit therewith. The rim 8 is then welded to the wall 11. In the welding operation, additional metal may be melted around the edge of the rim 8, but in any case, the extreme outer edge of the rim is usually melted down and welded to the upper surface of the wall 11 throughout the circumference of the rim, as indicated at 14 in Fig. 2. In this manner, the spud is very effectively secured in place in the container.

One of the advantages of my improved spud is that it may be made inexpensively from sheet metal in large quantities by the use of suitable dies which form it to the shape described. Furthermore, the crowned shape of the spud reinforces it very effectively so that it will not collapse or buckle under the blows to which it is subjected. Again, the spud may be readily fitted to the container wall as described and readily welded thereto.

Without limiting myself to the precise construction shown, I claim:

1. The combination with a container hav-

ing a metal wall with an opening therein, of a sheet metal spud having a sleeve portion fitting said opening, and a crowned flange on the sleeve portion abutting the outer surface of the container wall; substantially as described.

2. The combination with a container having a metal wall with an opening therein, of a sheet metal spud having a cylindrical sleeve portion fitting said opening, a crowned flange on the upper portion of the sleeve portion directed outwardly and laterally therefrom, and a lateral rim at the lower edge of said flange abutting the outer surface of the container wall and welded thereto; substantially as described.

3. The combination with a container having a metal wall with an opening therein, of a sheet metal spud having a cylindrical sleeve portion fitting said opening, a crowned flange on the upper edge of the sleeve portion directed outwardly and laterally therefrom, and a lateral rim at the lower edge of said flange abutting the outer surface of the container wall and welded thereto, the distance from the lower edge of the sleeve portion to the lower surface of the flange rim being substantially equal to the thickness of the container wall; substantially as described.

In witness whereof, I have hereunto set my hand on the 24th day of June, 1916.

GEORGE B. PICKOP.