Sept. 11, 1923. 1,467,916

G. F. BEHRINGER

BUNG FOR METALLIC RECEPTACLES

Filed March 18, 1922

Fig. 1.

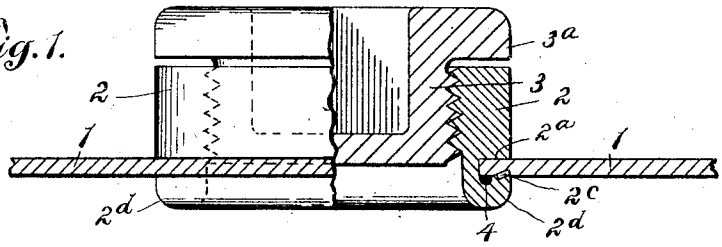


Fig. 2.

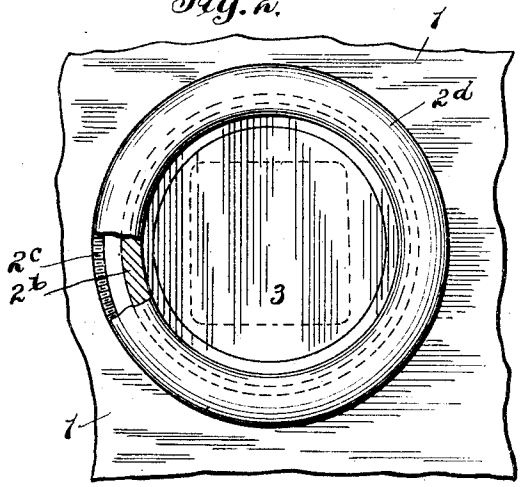


Fig. 3.

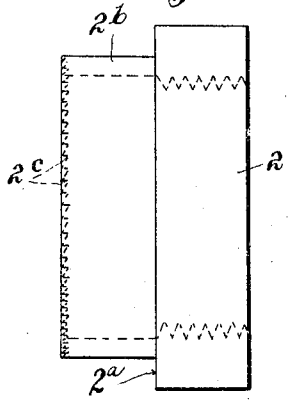


Fig. 4.

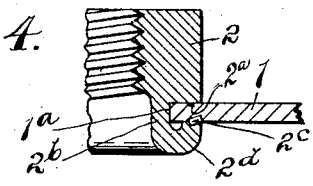
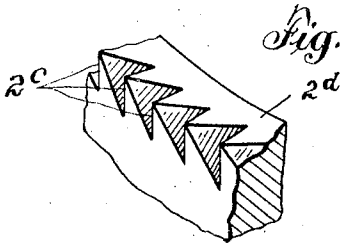


Fig. 5.



Inventor

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By Ord & Dillman Attorneys

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UNITED STATES PATENT OFFICE.

GROVER F. BEHRINGER, OF DEFIANCE, OHIO, ASSIGNOR TO THE AMERICAN STEEL PACKAGE COMPANY, OF DEFIANCE, OHIO, A CORPORATION OF OHIO.

BUNG FOR METALLIC RECEPTACLES.

Application filed March 18, 1922. Serial No. 544,730.

To all whom it may concern:

Be it known that I, GROVER F. BEHRINGER, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented certain new and useful Improvements in Bungs for Metallic Receptacles, of which the following is a specification.

My invention relates to improvements in bungs for metallic receptacles, the present embodiment of the invention being particularly designed and adapted for use in connection with metallic barrels, drums, and the like.

The primary object of the invention is the provision of a generally improved bung structure of the class mentioned which will be exceedingly simple in construction, cheap of manufacture and efficient in use.

A further and very important object is the provision of an improved form of bung sput adapted to be quickly and effectively mounted within the bung opening of the vessel or container and when so mounted having knurled or serrated portions adapted to be embedded within and to interlock with the marginal or surrounding container or vessel walls to thereby prevent any relative circumferential movement of the sput when the threaded plug is inserted in or removed therefrom.

A still further object is the provision of an improved sput particularly designed and adapted to be quickly and effectively attached to the container or vessel walls without welding, soldering or the like, improved means being provided to prevent any relative circumferential movement of the sput in the bung opening the attachment being such as to form a fluid tight joint to prevent leakage.

With the above mentioned and other ends in view the invention consists in the novel construction, arrangement, and combination of parts, hereinafter described, illustrated in one of its embodiments in the accompanying drawings and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Fig. 1 is a side elevation, partly in section, of a bung structure constructed in accordance with this invention.

Fig. 2, a plan view of the inner side of the same, a portion of the subjacent knurled or serrated interlocking and clamping beading of the bung ring being broken away to show the interlocking indentations formed in the inner face of the metallic walls surrounding the bung opening therein.

Fig. 3, a side elevation of the improved sput as it appears preparatory to being initially inserted and then beaded and fully clamped within the bung opening to interlock with the marginal edges of the vessel or receptacle walls to prevent relative circumferential movement or leakage between the parts.

Fig. 4, a fragmentary sectional view of the bung sput when beaded in interlocking position within the bung opening.

Fig. 5, an enlarged fragmentary view of the under or overturned edge of the beading ring and illustrating in particular the knurled or serrated edges thereof.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved bung structure may be incorporated in either the cylindrical side walls or the end walls or head of the metallic barrel or drum as in common practice.

The wall 1, is provided with a suitable bung opening 1^a, adapted to receive and contain the bung ring of the improved sput hereinafter more particularly described.

The improved sput comprises a main body portion 2, provided, in the present instance, with internal threads adapted to receive and contain a suitably threaded plug 3. The main body portion 2 of the sput is provided on its exterior with an annular shoulder 2^a, adapted to engage the marginal edges of the metallic walls 1 surrounding the bung opening and also forming a cooperating support or anvil to cooperate with the subjacent clamping and interlocking beading when the latter is upset or formed as hereinafter referred to.

The sput is provided with a bung ring 2^b, of reduced diameter adapted to enter the bung opening 1^a, said ring portion 2^b being adapted to initially extend somewhat below the plane of the metal surrounding the bung opening (see Fig. 3) so that when inserted the same may be upset and beaded out-

wardly to engage and clamp and interlock with the adjacent receptacle or container walls in cooperative relation to the shoulder 2^a, as shown most clearly in Figs. 1 and 4 of the drawings.

As a means of forming interlocking serrations between the adjacent surfaces of the ring beading and the marginal edges of the metal below the shoulder 2^a when the outer or extended portion of the bung ring 2^b is upset into beading clamping and interlocking relation within the bung opening, the inner or extended portion of the bung ring 2^b is provided with knurled or serrated portions 2^c, said knurling being preferably in the form of serrations or teeth (see Fig. 5) so that when the outer or extended portion of the ring 2^b, as shown in Fig. 3, is overturned and upset to form a beading 2^d, the teeth or serrations 2^c will embed themselves into the face of the surrounding metal forming a series of indentations 1^b, (see Fig. 2) to interlock with the teeth or serrations 2^c to prevent relative circumferential movement of the sput as a whole when the plug 3 is inserted or removed in a well known manner. If desired, a suitable gasket 4 may be mounted about the bung ring or extended portion 2^b before the latter is upset and beaded thereby including the gasket 4 within the beading and adjacent to the bung opening 1^a, as shown in Fig. 1 of the drawings.

Upon reference to Fig. 1 of the drawings it will also be observed that the outer or face portion of the body 2, forms a seat to receive the under surface of the plug flange 3^a when the plug is fully inserted.

Having thus described one of the embodiments of my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, what I claim and desire to secure by Letters Patent is,—

1. A bung sput having an outwardly extending annular shoulder terminating in a bung ring of reduced diameter, said bung ring having its edge knurled and embedded in the walls of the article to which it is attached and in opposed relation to said annular shoulder forming interlocking indentations in said article walls when said knurled edge is upset, said indentations extending adjacent to the outer periphery of said sput.

2. In a receptacle having a bung opening, a sput having an annular shoulder to engage the exterior of the receptacle about said bung opening, said sput being provided with a bung ring having a knurled extension beaded outwardly in clamping engagement with the interior of said receptacle in opposed relation to said annular shoulder forming interlocking indentations in said receptacle below and in registration with the outer periphery of said sput to prevent relative circumferential movement of the latter.

In testimony whereof I hereby affix my signature.

GROVER F. BEHRINGER.