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R. H. HACKNEY

REMOVABLE HEAD FOR METAL CONTAINERS

Filed Aug. 15, 1919

Fig. 1.

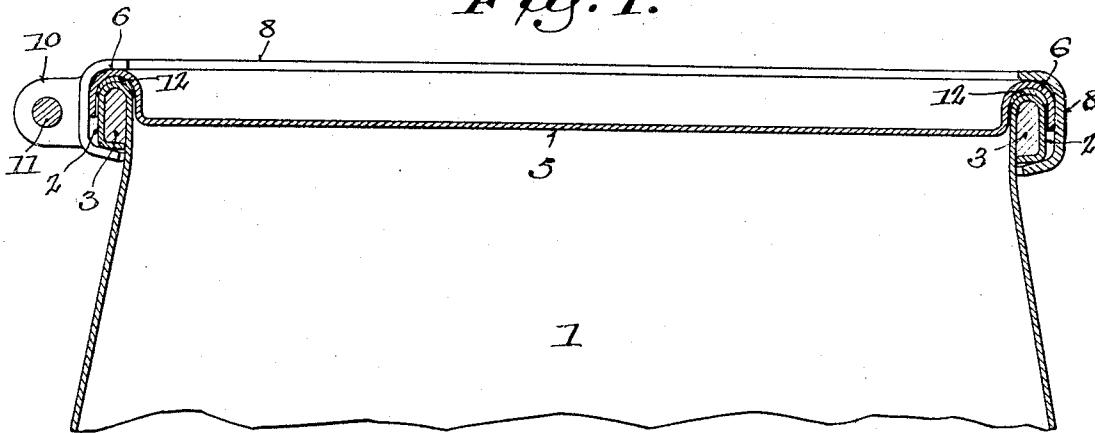


Fig. 2.

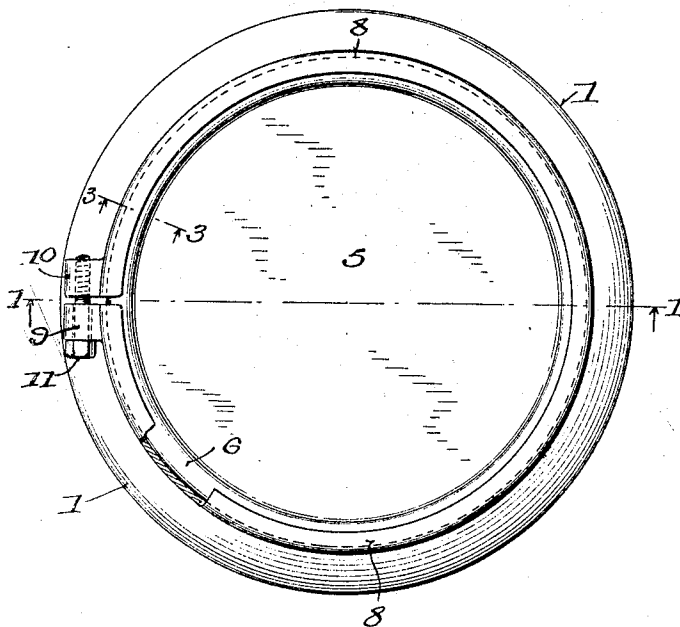
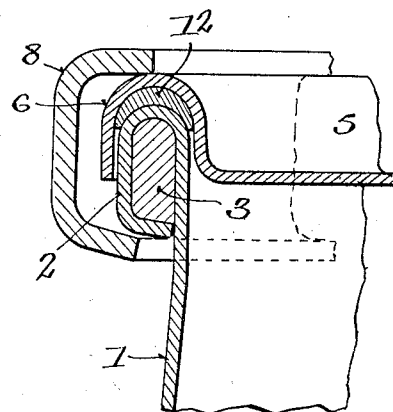


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT H. HACKNEY, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO PRESSED STEEL TANK COMPANY, OF WEST ALLIS, WISCONSIN, A CORPORATION OF WISCONSIN.

REMOVABLE HEAD FOR METAL CONTAINERS.

Application filed August 15, 1919. Serial No. 317,819.

To all whom it may concern:

Be it known that I, ROBERT H. HACKNEY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Removable Heads for Metal Containers, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

The main objects of this invention are to provide metal containers or receptacles, such as barrels, with removable heads which can be easily and quickly attached and detached without special tools, and which when desired, will make fluid-tight joints with the containers.

It consists in the construction, arrangement and combination of parts as herein-after particularly described and pointed out in the claims.

The invention is applicable to metal barrels, receptacles or containers of various sizes and shapes and for various uses.

In the accompanying drawing like characters designate the same parts in the several figures.

Figure 1 is an enlarged section on the line 1—1, Fig. 2, of one end of a metal barrel provided according to the invention with a removable head and adjustable fastening therefor; Fig. 2 is an end elevation on a reduced scale of the barrel, removable head and fastening; and Fig. 3 is an enlarged cross section on the line 3—3, Fig. 2, of the clamping ring, rim of the head and bead of the barrel, assembled with packing to form a fluid-tight joint.

The metal barrel, receptacle or container 1, is formed at the open end to which the removable head is applied, with an overhanging or outwardly projecting bead or rim 2, which may be reinforced if necessary or desirable, with a metal ring 3. This bead may be of any suitable shape in cross section, but is preferably cylindrical, oval or rounded as shown.

The barrel or container is provided with a removable metal head 5, formed with a rim 6, of concavo-convex or channel form, fitting over the bead 2. The rim may be pressed outwardly as shown, to form a chime, or, for containers in which such a chime or projection is undesirable or unnecessary, the rim may not extend out-

wardly beyond the plane of the head, but be simply bent laterally downward or inward adjacent the margin to fit over and properly engage with the bead on the barrel, to position and hold the head in place on the barrel, and to confine packing in position for making a fluid tight joint, as hereinafter set forth.

The head is fastened to the barrel or container by a contractible metal clamping ring 8. As shown, this ring is made of channel form or concave on the inner side, to fit over and engage with the outer side of the rim 6 on the head, and the inner side or shoulder of the bead 2, and to draw and hold these parts tightly together when the ring is contracted thereon, the channel in the clamping ring having outwardly converging opposing walls to engage with the bead or rim 2 of the barrel and the rim 6 of the head. The ring is made contractible by splitting or severing it transversely at one or more points and connecting the ends by adjustable fastenings. As shown, it is severed at one point only, and is made sufficiently flexible to be swung into place over the rim of the head and the bead of the barrel.

Any suitable means may be provided for drawing and fastening the ends of the ring together and contracting it upon the head and bead. As shown, it is provided at the ends with outwardly projecting lugs 9 and 10, which are drawn together and adjustably connected by a bolt 11, passing loosely through a hole in the lug 9 and threaded in an aligned hole in the lug 10. When the clamping ring is contracted on the bead 2 of the barrel and the rim 6 of the head, its wedging action thereon forces and holds the rim of the head tightly against the outer side of the bead.

When a fluid-tight joint is required for desired between the removable head and barrel or container, a strip or gasket, 12, of suitable packing material such as wicking, saturated or treated with white lead or other suitable filler, is interposed between the bead 2 and rim 6, as shown in Figs. 1 and 3.

Various modifications in the structural details of the device may be made without departure from the principle and scope of the invention as defined in the following claims.

I claim:

1. The combination with a metal container having an outwardly projecting marginal

bead around its open end, of a removable metal head formed with a concavo-convex rim fitting over the bead and having its margin extending downwardly below the top of the bead, a severed contractible channeled clamping ring having outwardly converging walls adapted when the ring is contracted to engage the under side of the bead and the upper convex side of the rim and draw the parts tightly together, and means located in a plane between said converging walls for drawing and fastening the ends of the ring together.

2. The combination with a metal container having an outwardly projecting rounded marginal bead around its open end, of a removable metal head formed with a

concavo-convex rim fitting over and overhanging the outer side of the bead and forming a chime and a packing confining channel, a severed contractible clamping ring provided at the ends with lugs and having outwardly converging walls adapted when the ring is contracted to engage the under side of the bead and the upper convex side of the rim and draw the parts tightly together, and a threaded bolt connecting the lugs in a plane between said converging walls and adapted to contract the ring upon the container and head.

In witness whereof I hereto affix my signature.

ROBERT H. HACKNEY.