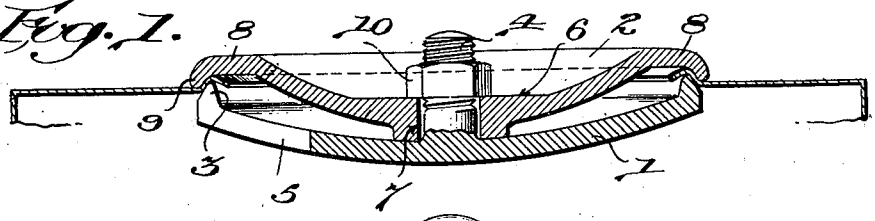
L. M. BOOTH.

DRUM CAP.

APPLICATION FILED MAR. 7, 1916.

1,216,771. Patented Feb. 20, 1917.

Fig. 1.



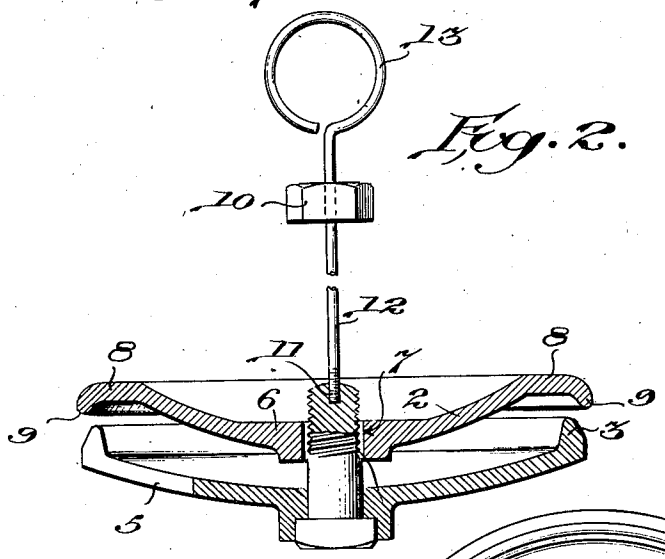
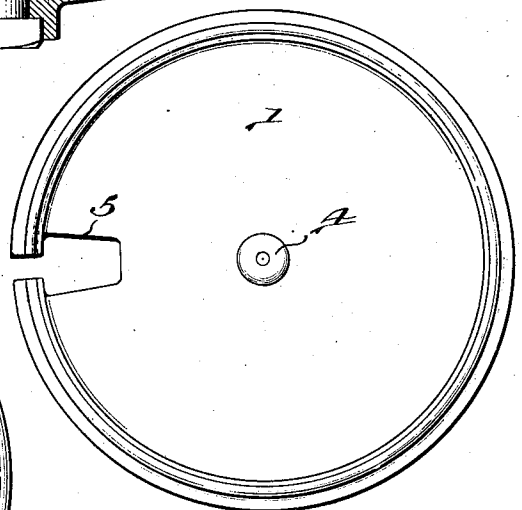


Fig. 2.

Fig. 3.



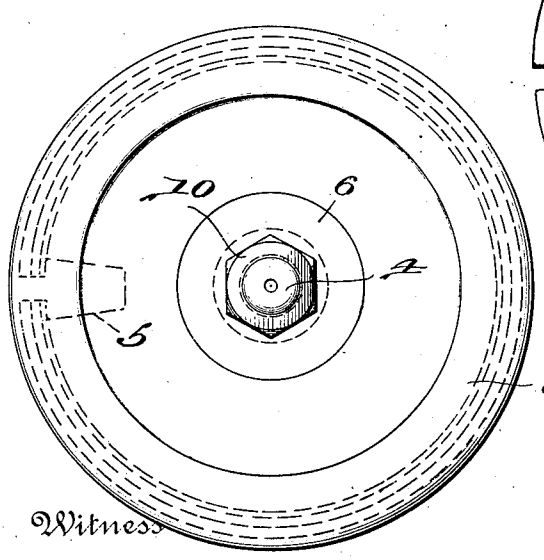


Fig. 4.

Witness

C. E. Cunningham.

Margaret Steck.

Inventor

LEVIS M. BOOTH.

By Henry M. Brigham.

his Attorney

UNITED STATES PATENT OFFICE.

LEVIS M. BOOTH, OF PLAINFIELD, NEW JERSEY.

DRUM-CAP.

1,216,771. Specification of Letters Patent. Patented Feb. 20, 1917.

Application filed March 7, 1916. Serial No. 82,726.

To all whom it may concern:

Be it known that I, LEVIS M. BOOTH, a citizen of the United States, and a resident of Plainfield, in the county of Union and State of New Jersey, have invented new and useful Improvements in Drum-Caps, of which the following is a specification.

This invention relates to the general subject of metallic shipping and storing vessels or receptacles, and has particular reference to a novel sealing plug or cap therefor.

Primarily, the invention has in view the provision of a novel two-part cap that is of special utility in connection with sheet metal drums having a filling and discharge opening cut out of one wall thereof. That is to say, the cap contemplated by the present invention is especially adapted to rigidly clamp or grip the edges of the wall of the vessel or drum surrounding the opening to thereby provide a tight and effective seal.

Another object of the invention is to provide a sealing device whose parts are readily separable to have access to the contents of the vessel, and which may be secured together with facility when desired.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the drawings—

Figure 1 is a sectional view showing the application of the invention.

Fig. 2 is an enlarged cross sectional view of the assembled cap, showing means for holding the inner member in position while the outer member is being applied.

Fig. 3 is a top plan view of the assembled cap.

Fig. 4 is a top plan view of the lower member or anchor plate.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

In carrying out the present invention, it is proposed to provide a cap or sealing plug that will grip the inner and outer surfaces of the receptacle, adjacent the filling and discharge opening, in a tight and positive manner so that an effective seal is provided. To this end the invention includes an inner anchor plate or member 1, and a separable outer plate or cover 2.

In a cap or closure device of this character, it is specially desirable that the same be as nearly flush with the top of the receptacle as possible. Accordingly, to provide for this the body of the anchor member 1 is preferably hollowed or dished, and formed at its periphery with an annular offset clamping flange 3, while the central portion of the same carries a threaded bolt 4 preferably disposed at right angles to the horizontal plane of the body. The bolt 4 may be integral with the body 1 as shown in Fig. 1, or the bolt 4 may be placed in the mold and the body 1 cast around it, or the body 1 may be tapped and the bolt 4 inserted therein. In order to obtain the necessary clamping space at the edge of the receptacle wall surrounding the opening, the anchor plate 1 must necessarily be larger than the opening. Therefore, in order to insert the same into the interior of the receptacle so that the top of the flange 3 will engage the inner face of the receptacle wall, the said dished body of the anchor member is provided with a radial slot 5, which is narrow near the periphery and wider toward the center of the plate. This permits the same to be inserted edgewise into the receptacle opening with the smallest possible gap in the flange 3, when the opening is provided with a downwardly turned lip or flange, and it may then be righted or turned into a horizontal plane so that the bolt element 4 will assume a vertical position. In other words, in order to place the member 1 into the opening, it is necessary to hold the same edgewise at substantially right angles to the top of the drum or receptacle, with the mouth of the slot 5 in position to straddle the edge of the opening, and then by a substantially rotary and lateral movement shift the entire plate so that the body thereof will advance sufficiently over the edge of the receptacle at the opening to permit the side thereof opposite the slot to clear the opposite edge of the opening. The anchor plate 1 may then be righted as above indicated, so that it will rest upon the contents of the vessel, if the same is filled, and if such is the case, the cover member 2 is ready to be placed in position. However, if the vessel is empty or partially empty, an external support is necessary for the anchor plate. This will be presently referred to.

The cover member 2, like the member 1, is preferably of circular or disk form, and includes a central depressed body portion 6 for matching with the dished portion of the

member 1 and having therein a centering opening 7 for receiving the bolt 4. The outer edge portion of the cover 2 is preferably flat as indicated at 8, while the extreme peripheral edge thereof is bent to one side of the flat portion 8 to form a marginal flange or bead 9 for telescopically receiving the annular flange 3 of the anchor member 1. As will be apparent from Fig. 1, this bead 9 constitutes an abutment for the flange 3 against which the edge of the wall of the receptacle adjacent the opening may be pressed by said flange where the plates are clamped together, thus distorting the metal, and forming a rigid interlock and tight seal. For the purpose of clampingly holding the cover plate or disk 2 on the anchor plate 1, the bolt 4 is provided with a clamping nut 10 which may be readily removed and replaced to either separate the members 1 and 2, or secure the same together.

As has been previously indicated, under ordinary conditions of use, the vessel is filled and the anchor member 1 rests upon the top of the contents thereof. In this way the contents of the can constitute a support, whereby the cover member 2 may be readily secured in position. However, in cases where the contents of the can or receptacle have been partially used, and it is desired to replace the cap, it will be impossible to support the anchor member 1 without an external support. A simple form of supporting device for accomplishing this purpose is shown in Fig. 2, wherein it will be observed that the end of the bolt 4 is tapped as at 11 to receive the threaded end of a supporting tool 12 having a handle 13. This tool is preferably a piece of wire bent into the shape shown, and having a threaded end for detachably engaging with the bolt 4, so that after the cover 2 has been secured on the anchor 1 by means of the nut 10, the same may be readily removed. The cover 2 and nut 10 are placed in position for final assembling on the shank of the tool 12 before the threaded end of the tool is screwed into the end of the bolt 4, and in actual use the shank is made long enough to permit sufficient space between the cover and anchor members to thus prevent any interference of the tool or cover with the insertion of the said anchor edgewise into the opening in the receptacle.

Without further description, it is thought that the many features and advantages of the present invention will be readily apparent, and it will also be understood that minor changes in the form, proportion, and details of construction may be resorted to without departing from the spirit of the invention or scope of the appended claims.

I claim:

1. A receptacle sealing cap comprising complemental clamping members, one of said members having an upstanding peripheral clamping bead edge, and the other of said members having a peripheral groove for telescopically receiving said clamping bead edge of the other member.

2. A receptacle sealing cap comprising complemental clamping members, one of said members having an annular upstanding clamping bead edge and the other of said members having a continuous offset clamping edge portion for telescopically receiving the clamping bead flange of the other member, and means for detachably holding said members together.

3. A receptacle sealing cap comprising complemental clamping members each including a body having an offset clamping edge, the peripheral clamping edge portion of one member telescopically interlocking with the corresponding edge portion of the other, and means for detachably holding said members together.

4. A receptacle sealing cap comprising complemental clamping members each including a body having a flanged peripheral edge portion, the peripheral edge portion of one member telescopically interlocking with the edge portion of the other, one of said members having a radially disposed laterally opening clearance slot, and means for detachably holding said members together.

5. A receptacle sealing cap comprising an anchor disk having a clearance slot, an upstanding annular flange formed at the edge thereof, and a cover disk having an annular projecting bead flange providing a joint shoulder for said annular flange on the anchor disk, and means for clamping the disks together.

6. A receptacle sealing cap comprising an anchor disk having a radially disposed clearance slot, an upstanding annular flange at the peripheral edge of said disk, and a threaded clamping bolt carried by the central portion thereof, a cover disk having a peripheral bead flange for telescopically receiving and interlocking with the annular flange on the anchor disk and also having an opening for receiving said clamping bolt, and a clamping nut on said bolt for holding said disks in assembled relation.

Signed at New York city, in the county of New York, and State of New York, this 28th day of February, 1916.

LEVIS M. BOOTH.

Witnesses:
EDWARD H. WILSON,
BENJAMIN T. ABRAMS.