Feb. 26, 1924. 1,485,136

H. A. HOUSE

CLOSURE FOR RECEPTACLES

Filed Aug. 31, 1922

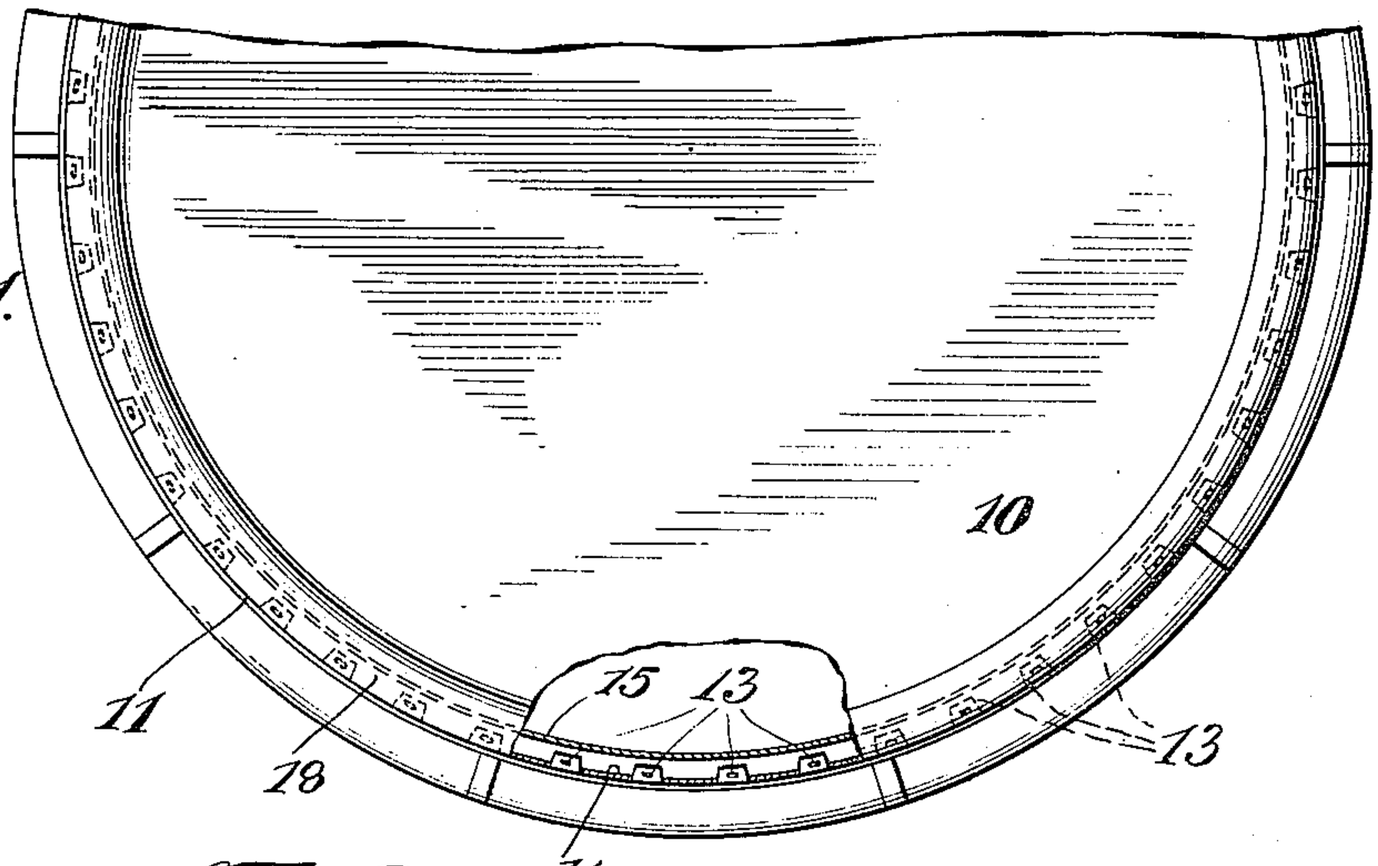

Fig. 1.

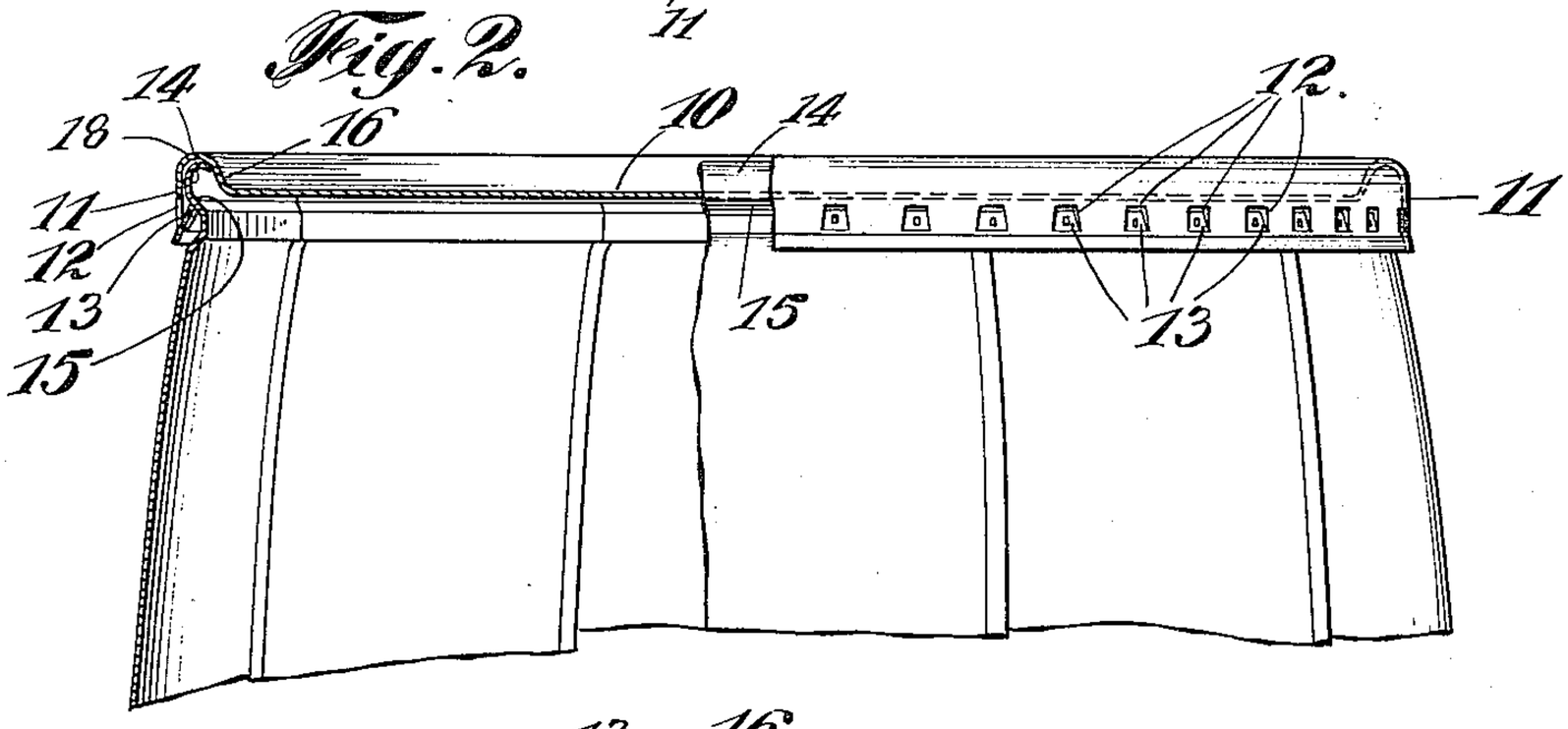

Fig. 2.

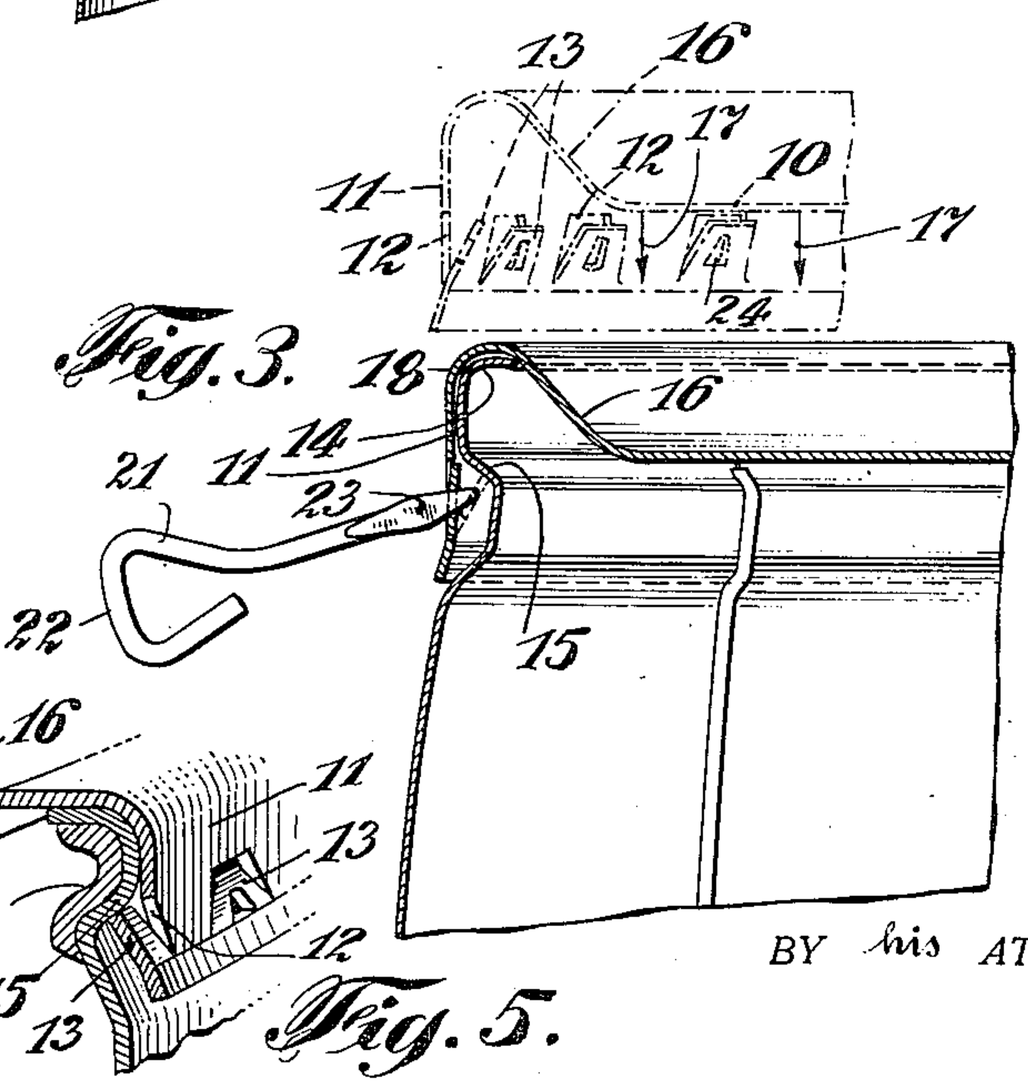

Fig. 3.

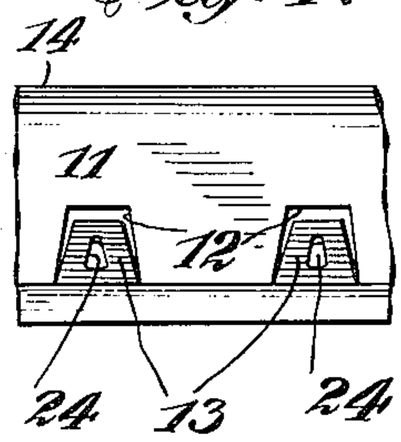

Fig. 4.

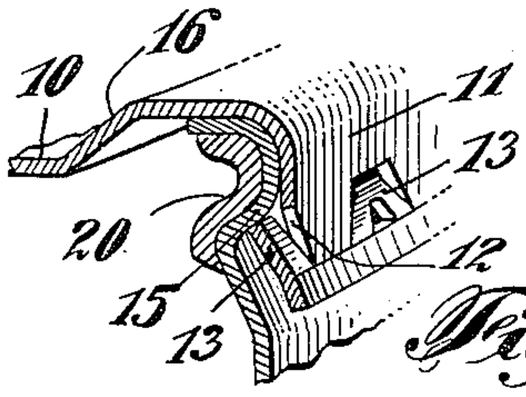

Fig. 5.

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UNITED STATES PATENT OFFICE.

HENRY A. HOUSE, OF BRIDGEPORT, CONNECTICUT.

CLOSURE FOR RECEPTACLES.

Application filed August 31, 1922. Serial No. 585,390.

To all whom it may concern:

Be it known that I, HENRY A. HOUSE, a citizen of the United States, and a resident of Bridgeport, county of Fairfield, and State of Connecticut, have invented a certain new and useful Improvement in Closures for Receptacles, of which the following is a specification.

This invention relates to closure for receptacles and more particularly to barrel or casks having heads made of metal or the like of one piece. The invention has for its object to provide a simple, efficient and easily manufactured structure having a head which may be stamped out of one piece and which may be applied in a simple manner and which when applied will remain securely fastened until removed by positive removing means.

For this purpose my invention consists of a closure for receptacles including a single piece barrel head having means securing the head to the barrel itself flexibly movable in respect to holding position and flexibly movable into releasing position.

In the accompanying drawing;

Figure 1 is a partial plan view with a part broken away, showing the application of my improved one-piece barrel head secured to the barrel itself;

Figure 2 is a view partly in elevation and partly in section showing the barrel head applied to the barrel;

Figure 3 is a sectional view of the barrel head applied to the barrel, with parts broken away and also showing the device used for releasing the fastening members from engaging to disengaging position so as to enable the barrel head to be readily detached from the body of the barrel.

The dotted line drawing forming the upper part of Figure 3 shows the barrel head immediately prior to its application to the barrel itself.

Figure 4 is a side view of several of the fastening devices which form part of the barrel head; and

Figure 5 is a sectional view partly in perspective of a fastening device of the barrel head engaging the barrel, which barrel has a reinforcing member near the open end thereof.

Similar characters of reference indicate corresponding parts throughout the various views.

Referring to the drawings and more particularly to Figures 1 and 2, the barrel head 10 is made from a one-piece blank which has a size commensurate with the open end of the barrel itself, be it the top or the bottom thereof. At the periphery of the main body of the barrel head, extensions are provided in the blank which are bent downwardly by a stamping operation or the like, into the position shown in Figure 2. At the proper time this extension is provided with cut-outs and tongues which form reinforcing members and the stamping operation moves these tongues into a position in respect to the extension referred to at an angle of from 15 to 30° so that when these tongues are placed in position in respect to the chine of the barrel head the tongues will be at substantially right angles to the surface of the chine. As a result of this it follows that a very secure holding action takes place since the more pull is exerted upon the barrel head, the tighter the barrel head will hold, in view of the relative position of the tongue in respect to the extension of the head and in respect to the chine itself.

The barrel head 10 has its extension 11 provided with the cut-outs 12 from which extension the tongues 13 are pressed inwardly as clearly shown in Figure 2. For the purpose of clearly illustrating the parts described it will be seen that the extension 11 of the barrel head preferably does not contact with the entire uppermost portion 14 of the barrel above the chine portion 15 thereof, but preferably, these portions are made to contact at 11 and 14 as shown in Figure 5. The barrel head is also provided with an inclined circumferential portion indicated at 16, which gives strength to the barrel head and forms with the projection 11, an enveloping member for the uppermost portion of the barrel head.

After the barrel head has been made from the one-piece blank referred to in the man-

ner just described, with the extension 11 and tongues 13 in the relative position and as shown in dotted lines in Figure 3, the barrel head is moved downwardly in the direction of the arrows 17 at the upper part of Figure 3 and as a result of this downward movement, the tongues 13 circumferentially arranged around the barrel head, move outwardly until the tongues in their outward moved position pass the chine of the barrel itself. When they pass this point then they spring back again to their initial position due to their inherent resiliency, and by the time they have sprung back into their initial position the barrel head has been moved downwardly sufficiently to bring about this contact between the uppermost portion 14 and the barrel head at 18, as indicated in Figure 3 and the tongues 13 have sprung into position and in contact with the chine 15 of the barrel, as clearly shown in Figure 2.

In Figure 5 is shown a modified form of the embodiments just described which consists in providing the uppermost portion of the barrel with a reinforcing member 20 having the substantial shape of the interior of the member 14 of the barrel and extending circumferentially around the upper portions of the barrel or the lower portion thereof, as the case may be. The co-operation of the chine 15 and the tongues 13 is clearly shown in Figure 5.

When it is desired to remove the barrel head, a removing device indicated at 21, having a handle 22 and an engaging member 23 is provided and this is so arranged that its engaging member 23 enters the openings 24 in the tongues 13. By a downward movement of the handle 22 the tongues 13 are moved outwardly substantially in alignment with the extension 11 of the barrel head and by thus being moved in alignment therewith and preferably slightly outwardly thereof, the resiliency of the tongues is neutralized so that the tongues do not spring back again into their initial position. After all the tongues of the barrel head have been placed into their innocuous position the barrel head may be readily removed from the barrel itself. If such a barrel head is desired to be used again, the tongues may be forced inwardly into their initial position and their inherent resiliency will permit them to pass the proper part of the barrel and snap into position of engagement with the chine thereof.

What I have stated in respect to a barrel head or top of a barrel, or uppermost part of a barrel applies equally as well to the bottom or lowermost part of a barrel, since the invention as herein described and shown in an embodiment for the top or uppermost part of the barrel applies equally well to the bottom thereof.

It will therefore be seen that the retaining lugs or tongues are turned in from the spring flange of the head and the head is blanked and drawn with its inside diameter the size of the outside of the barrel chines. The drawn head is then placed upon a dividing dial and the retaining lugs are cut free on three sides, pierced and turned in at an angle of from 15 to 30°, the drawing of the flange of the head hardens the steel and gives it quite a spring temper so that when the head is pressed over the barrel when assembled, the lugs will spring into the recess of the chine and hold the cover in a secure position. The barrel chine being at a right angle to the retaining lugs or tongues it will almost be impossible to remove the head without bending the lugs back into the flange of the head. The retaining lugs can be placed at any desired pitch.

Having thus described my invention, in which changes may be made without departing from the spirit or scope thereof as defined in the appended claims, I claim as new and desire to secure by Letters Patent:

1. A receptacle closure, comprising a tubular member having an inturned upper margin and a chine depressed inwardly from the outer surface of said member, and a head having an upwardly inclined outer margin terminating in a rounded shoulder adapted to bear against the inturned upper margin of said member, and a depending flange provided with tongues adapted to engage the chine of said member.

2. A receptacle closure, comprising a tubular member having an inturned upper margin and a chine depressed inwardly from the outer surface of said member, an annular reinforcing ring bearing against the inner surface of said inturned upper margin, and a head having an upwardly inclined outer margin and a rounded shoulder adapted to bear against the inturned upper margin of said member, and a depending flange provided with tongues adapted to engage the chine of said member.

3. A receptacle closure, comprising a head having an upwardly inclined outer margin terminating in a rounded shoulder, and a depending flange provided with apertured tongues and a lever having an operating end adapted to engage the apertures of said tongues.

4. A receptacle closure, comprising a head having an inclined margin terminating in a rounded shoulder, and a depending flange extending at an angle to the inclined portion of said head and provided with cut-away portions forming tongues adapted to be bent inwardly from said flange.

5. A receptacle closure having an inclined outer margin terminating in a circumferential flange having a plurality of cut-outs and a plurality of tongues extending from

the flange inwardly of the same, and provided with openings, and having an inherent resiliency holding the tongues in their initial position at an angle of approximately 15 to 30° to the flange and adapted to be moved out of their initial position and spring back into the same, and also adapted by suitable means engaging the openings of the tongues to be moved into a position so as to render their inherent resiliency innocuous.

In testimony that I claim the foregoing as my invention, I have signed my name hereunder.

HENRY A. HOUSE.