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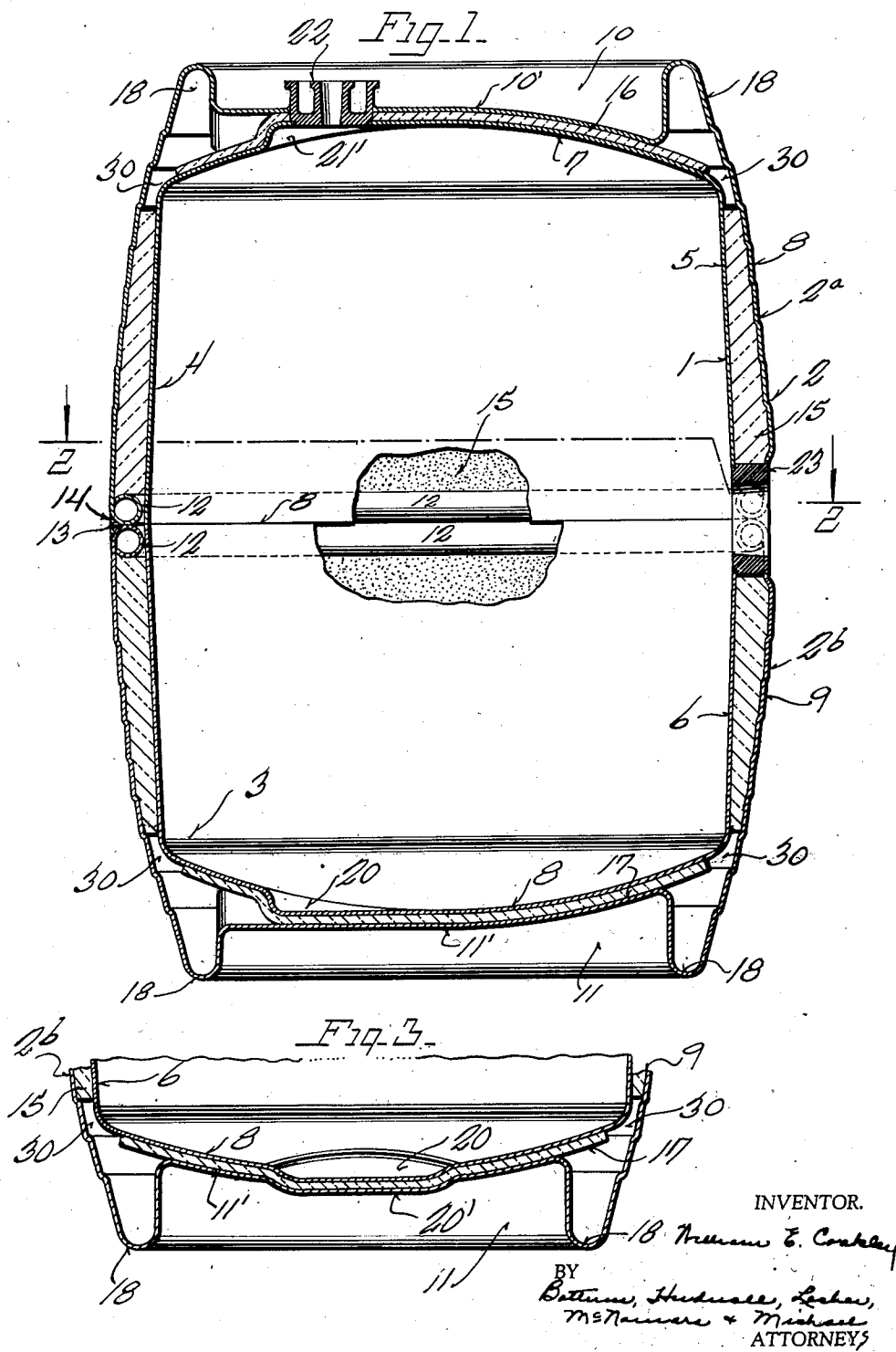
W. E. COAKLEY

2,058,665

METAL BARREL

Filed Nov. 6, 1933

2 Sheets-Sheet 1



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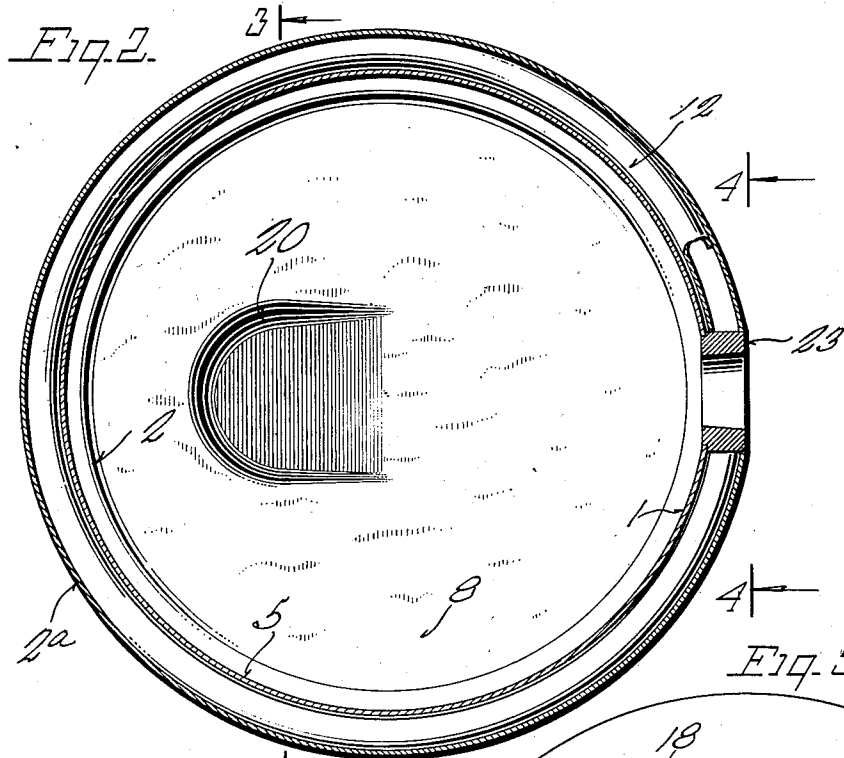
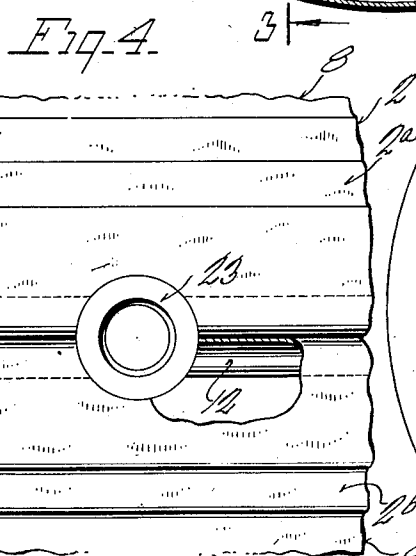
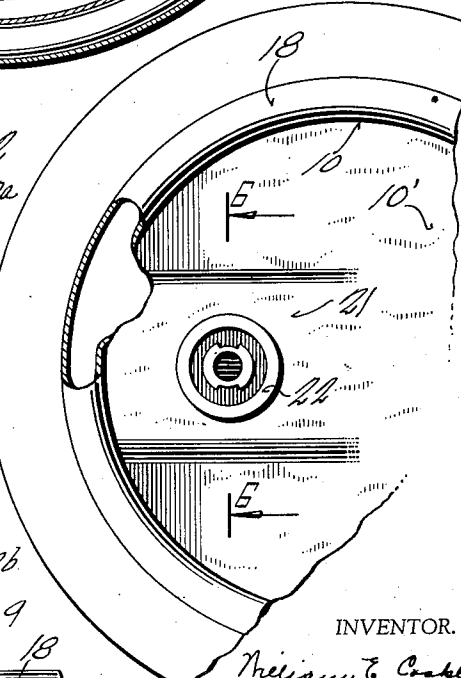
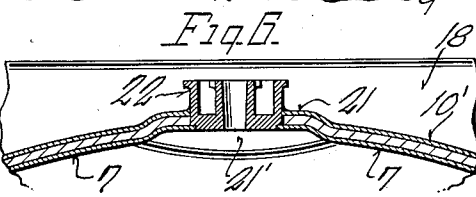
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UNITED STATES PATENT OFFICE

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METAL BARREL

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Application November 6, 1933, Serial No. 696,755

6 Claims. (Cl. 220—10)

This invention relates to an improvement in metal barrels particularly designed and adapted for use as a container for beer or similar beverages although also well adapted for various other uses and applications.

One of the objects of the invention is to provide a metal barrel of the type having inner and outer shells with a suitable insulating medium therebetween and which is so constructed and organized that, while the advantages of simplicity in structure and ease of production are had, nevertheless the inner and outer shells are firmly and securely interlocked in proper relative position with respect to each other and this without impairing the effectiveness of the insulation between the shells.

Another object of the invention is to provide a barrel of this character having an improved construction at its center to facilitate assembly, enhance strength and rigidity, well adapt the barrel for rolling and protect the pitch coating on the interior thereof, where such is used, from shocks and the like.

Another object of the invention resides in the provision of a metal container having these advantages and which, in the final assembly, presents a strong, rigid and durable construction, one well adapted to stand up under the severe usage to which such a container is put.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, and in which:

Figure 1 is a view in diametrical vertical section showing a container embodying the present invention;

Figure 2 is a view in horizontal section taken on line 2—2 of Figure 1;

Figure 3 is a fragmentary view in vertical section taken on line 3—3 of Figure 2;

Figure 4 is a fragmentary view in elevation, the container being viewed from line 4—4 of Figure 2 and parts being broken away and shown in section for the sake of illustration;

Figure 5 is a fragmentary view in top plan, parts being broken away and shown in section for the sake of illustration; and

Figure 6 is a fragmentary sectional view taken on line 6—6 of Figure 5.

Referring to the drawings, it will be seen that the invention comprises, in general, an inner

shell designated generally by the numeral 1, and an outer shell similarly designated at 2.

The inner shell 1 consists of a pair of tub-like sections 3 and 4 of similar construction, each being preferably drawn from a single piece of metal into the form shown. As illustrated, the sections in their final form consist of body portions designated at 5 and 6 and end walls designated at 7 and 8. The body portions 5 and 6 have the edges of their open ends abutting and welded together as at 8.

The outer shell also consists of two shell-like sections designated at 2^a and 2^b and of similar construction. These sections of the outer shell are made up of bilged body portions 8 and 9 preferably of the stepped formation shown and integral cupped end walls designated at 10 and 11.

The edges of the body portions 8 and 9 around their open ends are curved inwardly, that is, are formed with intumed bead or roll formations designated at 12, these formations abutting in the assembly and presenting to the exterior an outwardly opening, circumferentially extending, V-shaped pocket 13 which well adapts the meeting ends of the sections to the welding employed to secure the sections together. The weld between the roll formations 12 is indicated at 14 (see Figure 1). This structure also enhances the strength and rigidity of the barrel in this region and well adapts it for rolling. To better adapt the roll formations for welding they may be flattened to some extent to narrow the V-shaped pocket, that is, to bring the converging walls thereof closer together. An important feature of this structure is to maintain or dispose these roll formations spaced from the inner shell to preclude transmission of shock thereto and thus protect the pitch coating on the inner shell.

In between the body portions of the inner and outer shells any suitable insulation designated at 15 may be provided and similar insulation designated at 16 and 17 is provided between the upper and lower end walls of the inner and outer shells.

The present invention utilizes a novel formation of the end walls of the inner and outer shells to interlock these walls in proper relation relative to each other. As illustrated, these end walls are outwardly curved or dished and the curvature of the end walls of the outer shell and of the end walls of the inner shell correspond. For example, the end walls of the inner and outer shells may be made on the same radius to insure a positive and rigid support for the inner container. This curvature, insofar as the end walls of the outer

shell are concerned, applies to the central portions 10' and 11' thereof, which portions are located within the chime structure 18 which the cupped formation of the end walls provides.

5 This interlocking of the shells is enhanced by corresponding offset portions 20 and 20' provided in the lower end walls 8 and 11 and by similar offset portions 21 and 21' provided in the upper
10 end walls 10 and 7 of the shells. Positive interlock is thus had between surfaces of substantial area at the ends of the shells and concentration of strain at the corners or junctures of the body portion and ends of the inner shell is avoided, such parts being spaced as indicated at 30.

15 The offset portions 20 and 20' securely hold the insulation 17 in proper position and the offset portions 21 and 21' exert a similar holding action on the insulation 16. The outer shell is more pronouncedly bilged than the inner shell and consequently converges inwardly thereto toward the
20 ends of the inner shell whereby to hold the insulation 15 in proper position.

A tap fitting 22 is fitted within and secured to openings provided therefor in the offset portions
25 21 and 21' of the walls 10 and 7. A bung bushing 23 similarly is fitted and secured in openings provided therefor in the inner and outer shells at the middle thereof.

It will be appreciated that the offset portions
30 20 and 20' provide the low point for the tap rod or tube, in addition to the function above mentioned. Furthermore, they not only positively interlock but insure as an incident of such action proper registration. The offset portions 21
35 and 21', in addition to the function above specified, also better adapt the barrel to the welding between such portions and the tap fitting.

The inner and outer shells may be constructed of any suitable metal such as sheet metal or the
40 like. Usually, it will be desirable to fabricate the outer shell from mild steel and if the inner shell is constructed of similar material to apply a coating of suitable pitch to the inner surfaces thereof. However, the inner shell may be fab-
45 ricated of aluminum, stainless steel, or other metal inert to the contents of the container.

While I have shown and described one construction in which the invention may be embodied, it is to be understood that this construction
50 has been selected merely for the purpose of illustration or example and that various changes in the size, shape and arrangement of the parts may be made and various materials may be utilized without departing from the spirit of the invention and the scope of the subjoined claims.

The invention claimed is:

1. A barrel comprising an inner shell, and an
outer shell made up of two substantially tub-like
60 sections formed with inward curls at the open ends, said curls abutting and being spaced from the inner shell in the assembly and a weld between said curls whereby said curls provide an internal circumferentially extending reinforce-

ment at the middle of the outer shell to enhance the strength and rigidity of the barrel and better adapt it for rolling and preclude transmission of shocks to the inner shell.

2. A barrel comprising outer and inner shells, said outer shell having sections extending over the inner shell and meeting intermediate the ends thereof, the meeting edges of the outer shell being provided with inturned bead formations, said bead formations abutting and being secured
10 together and forming an internal reinforcing and stiffening ring adapting the barrel for rolling.

3. A barrel comprising outer and inner shells, said outer shell having sections extending over the inner shell and meeting intermediate the ends thereof, the meeting edges of the outer shell being provided with inturned bead formations, and a weld between said bead formations, said bead formations providing a stiffening and reinforcing
15 ring aiding in preventing deformation of said outer shell.

4. A barrel comprising an inner shell and an outer shell made up of sections, the meeting edges of the sections having inturned roll formations abutting each other and spaced inner shell in the
25 assembly, said roll formations presenting an outwardly opening V-shaped pocket in the assembly and a weld between said roll formation whereby the roll formations provide a circumferentially extending reinforcement and stiffener for the
30 outer shell and preclude transmission of shock to the inner shell.

5. A barrel comprising inner and outer shells having spaced body portions and convexed end walls interconnected to secure the shell in proper
35 relative position by virtue of the interaction of the convexed end walls, and a tap bushing interconnected with the upper end walls, the lower end walls being provided with opposed and correspondingly downwardly offset interlocking portions, said downwardly offset interlocking portions being vertically aligned with the tap bushing so as to provide a low point for a tap rod.

6. A metal barrel comprising inner and outer shells, each comprising a pair of tub-like sections, each section being constituted of a single piece of metal, welds between the edges of the open ends of the sections of each pair, said inner and outer shells having spaced body portions and spaced end walls, said end walls having correspondingly and opposed outwardly convexed portions, insulation between said convexed portions acting to support the inner shell on the outer and coating with the convexed portions to tend to interlock the shells against relative movement, and insulation between the body portions of the shells, and a tap bushing interconnected with the upper end walls, the lower end walls having corresponding offsets in their convexed portions interlocked with each other through the medium of the intervening insulation to supplement the interlock between the inner and outer shells.

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