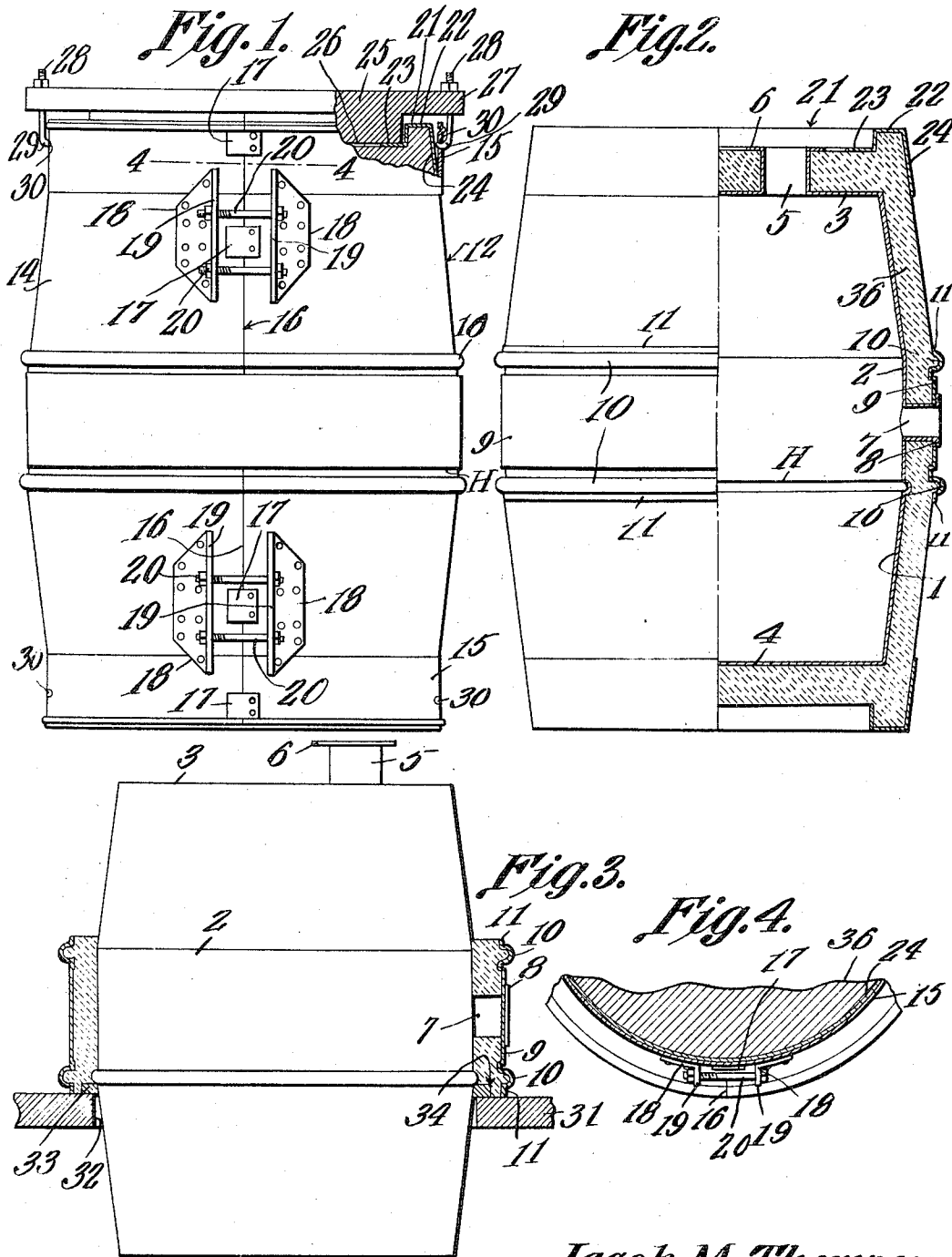


J. M. THOMPSON.
BEER KEG MOLD.
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Witnesses

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UNITED STATES PATENT OFFICE.

JACOB MULLEN THOMPSON, OF FOND DU LAC, WISCONSIN.

BEER-KEG MOLD.

1,038,683.

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To all whom it may concern:

Be it known that I, JACOB M. THOMPSON, a citizen of the United States, residing at Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Beer-Keg Mold and Liquid-Container, of which the following is a specification.

The objects of the present invention are to provide a mold for the fashioning of beer kegs, and like containers, the mold being so constructed that certain constituent parts thereof may remain in the molded beer keg, to serve as reinforcements therefor.

A further object of the invention is to provide novel means for securing relative movement between certain parts of the mold, thereby to effect a compression of the plastic material about the inner lining or core.

A further object of the invention is to provide a mold of this character, certain of the constituent parts of which may be separated readily from the molded product, after the plastic material has set sufficiently.

A further object of the invention is to provide, as an article of manufacture, a novel form of molded beer keg, or like container.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings,—Figure 1 shows the device in side elevation, parts being broken away; Fig. 2 is a sectional elevation of the finished product; Fig. 3 is an elevation showing the inner lining and the bilge band mounted upon a horse, the parts being positioned as they will appear at the inception of the molding operation; and Fig. 4 is a section upon the line 4—4 of Fig. 1.

In carrying out the invention there is provided a lining, denoted generally by the numeral 1, the lining 1 being preferably a one-piece, hollow metallic structure. The lining 1 includes an intermediate bilge band 2, with the opposite edges of which are con-

nected conical heads 3 and 4. Projecting from the head 3 is a spigot tube 5, having at its outer end, a laterally projecting flange 6. A bung tube 7 projects from the bilge band 2 of the lining, the bung tube 7 being equipped at its outer edge with a flange 8. The flange 8, if desired, may be made flexible, so as to be bent downwardly, to lie upon the outer face of a bilge band 9 which surrounds the inner bilge band 2 in spaced relation thereto. Adjacent its edges, the bilge band 9 is equipped with outwardly projecting corrugations 10, the extreme edges of the bilge band 9 constituting flanges 11, having functions which will be set forth hereinafter.

The invention further includes an annular casing 12, comprising a conical body portion 14, and a cylindrical flange 15, secured to or formed integrally with the smaller end of the body portion 14. The annular casing 12 is fashioned from resilient material, and is separable along a line 16, extended longitudinally of the mold. Clips 17 are secured to the cylindrical flange 15 and to the body portion 14, these clips 17 overlapping the line 16, for the obvious purpose of preventing an undue spreading of the annular casing. To the annular casing 12, upon both sides of the line 16, brackets, preferably taking the form of angle members 18 are applied. These angle members are secured both to the body 14 and to the cylindrical flange 15 of the annular casing 12. The outstanding flanges 19 of the angle brackets 18 are connected by bolt and nut structures 20, or other clamping elements adapted to a like end, the obvious function of the bolt and nut structures 20 being to draw the edges of the annular casing 12 together, along the line 16.

The invention further includes a chine ring 21, preferably although not necessarily forming a part of the finished keg adapted to fit within the cylindrical flange 15 of the annular casing 12. This chine ring 21 includes a channel 22 adapted to form the chine of the keg, there being a flange 23 projecting toward the axis of the structure, from one of the side walls of the channel 22, the flange 23 serving to reinforce the outer end face of the finished keg. Projecting toward the bung hole of the keg, from the channel 22, and overlying the outer face of the keg, is a flaring lip 24.

The invention further includes a follower, denoted generally by the numeral 25, the follower including a base 26, adapted to fit within the circumference defined by the inner wall of the chine ring 21, there being a flange 27 outstanding from the base 26, and adapted to overhang the end face of the channel 22 of the chine ring, as will be clearly understood from an inspection of Fig. 1.

Any desired means may be provided for actuating the follower 25. In the present instance, bolts 28 are extended through the flange 27, the bolts carrying nuts adapted to engage the outer face of the follower 25. The inner ends of the bolts 28 terminate in hooks 29, adapted to engage in openings 30 in the cylindrical flange 15 of the annular casing 12.

The manner of fashioning a beer keg or like container, in the mold hereinbefore described, may be varied, and the method of procedure will, in practice, conform to the tastes of the user. In the present instance, however, a horse 31 is provided, the same having an opening 32, into which one end of the lining 1 is adapted to fit. Outstanding from the horse 31, about the perimeter of the opening 32, and overhanging the opening 32, is a bead 33. The lower edge of the chine ring 9 rests upon the horse 31, and since the bilge band 9 is connected with the lining 1 through the instrumentality of the bung tube 7, it will be seen that the lining will be upheld by the horse 31, in the position shown in Fig. 3. The bead 33 serves to effect a closure about the periphery of the lining 1. The concrete or other plastic material which is employed in fashioning the keg, is introduced between the bilge band 9 and the body portion of the lining 1, this material being tamped down upon the horse 31. The bead 33 serves to form a sealing groove 34 in the constituent material of the keg, as will be readily understood from an examination of Fig. 3.

When the material has been filled in, approximately flush with the upper edge of the bilge band 9, the annular casing 12 is mounted in place, the lower end of the body portion 14 of the annular casing fitting about the flange 11 of the bilge band and resting upon one of the corrugations 10. The plastic material is then introduced between the annular casing 12 and the upper portion of the lining 1, the material being compacted about the spigot tube 5, to the desired thickness. The chine ring 22 is then inserted within the cylindrical flange 15 of the annular casing 12, and the follower 25 is mounted in place upon top of the chine ring. The bolts 28, when the same are employed, are engaged with their hooked portions 29 in the openings 30 of the flange 15 of the casing 12, whereupon, if the nuts

which are carried by the bolts 28 be rotated, the follower 25, obviously, will be pressed inwardly and downwardly, compacting the material across the end face of the lining 1, and depressing the chine ring 21, the depression of the chine ring serving to compact the material between the casing 12 and the lining 1.

It will be observed that by the foregoing operation, approximately one-half of the barrel or keg has been formed. If desired, after the barrel has thus been partially formed, the plastic material may be permitted to take an initial set, whereupon the mold may be inverted, another annular casing, duplicating the casing 12, being seated over the edge of the bilge band 9, in the manner hereinbefore described. Another chine ring 21 is employed, in the manner hereinbefore described, and another follower 25 is applied, through the instrumentality of the bolts 28, or otherwise.

The groove 34, formed by the bead 33, will effect a bond between the two constituent parts of the keg.

Obviously, if desired, after approximately one-half of the keg has been formed, as indicated in Fig. 3, the material may be permitted to take a final set, whereupon the casing 12 and the follower 25 may be removed, these elements being employed to fashion the other end of the keg.

The casing 12 may be drawn into place by manipulating the bolt and nut structures 21, and when these bolt and nut structures are relieved, the cylindrical casing 25 may be sprung away from the finished product, owing to the resiliency of the casing.

When the product is completed, the lining 1 will remain within the keg, the bilge band 9 will circumscribe the bilge of the keg, the chine rings 21 will occupy the positions shown in Fig. 2, and the spigot tube 5 and the bung tube 7 will constitute openings into the interior of the keg, as will be clearly understood from an inspection of Fig. 2.

As will be readily understood, the lining 1 will be completely embedded in the covering 36, the bilge band 9 surrounding the outer face of the covering, at the bilge of the cask, the bung tube 7 extending through the covering at the bilge of the cask, and the spigot tube 5 extending through one of the heads of the cask, the concrete fitting into the channel 22 of the chine ring, the flange 24 of the chine ring overlying the outer face of the concrete, and the second, angularly disposed flange 23 of the chine ring overlying a portion of one of the heads of the cask.

The mold herein disclosed, is simple in construction and efficient in operation. The molding operation may be carried forward with great rapidity, at a minimum expense of time and labor, and the resulting product

is keg or cask of great strength, and adapted to withstand strains imposed thereon, either by fermentation or by rough handling.

Having thus described the invention, what is claimed is:—

1. A device for fashioning barrels, comprising a lining; a bilge band spaced from the lining; a bung tube connecting the bilge band with the lining; a separable casing adapted to engage removably with the bilge band; and a chine ring adapted to fit within the end of the casing.

2. A device for fashioning barrels, comprising a lining; a bilge band spaced from the lining; a bung tube connecting the lining with the bilge band; a separable casing adapted to interengage with the bilge band; a chine ring adapted to fit within the end of the casing; and a follower adapted to fit within the chine ring.

3. A device for fashioning barrels, comprising a lining; a bilge band spaced from the lining; a bung tube connecting the bilge band and the lining; a separable casing engaged with the bilge band; a chine ring fitting within the end of the casing; a follower fitting within and engaging the chine ring; and means connecting the follower with the casing, to produce relative movement between the casing and the follower.

4. In a device for fashioning barrels, a lining; a bilge band spaced from the lining; a bung tube connecting the bilge band with the lining; a separable casing removably engaged with the bilge band; a chine ring fitting within the end of the casing; a follower fitting within and engaging the chine ring; bolts extended through the follower and having hooked portions engaged removably with the casing; and nuts upon the bolts, adapted to engage the follower.

5. In a device for fashioning barrels, a bilge band, a separable casing removably engaged about the bilge band, a chine ring adapted to fit within the casing; means for moving the chine ring toward the bilge band; and a lining within the casing.

6. A device for fashioning barrels, comprising a bilge band provided with a corrugation, and with a flange outstanding be-

yond the corrugation; a separable casing inclosing the flange, and upheld by the corrugation; a chine ring movable within the end of the casing; means for moving the chine ring toward the bilge band; and a lining within the casing.

7. In a device for fashioning barrels, a bilge band; a separable casing inclosing the bilge band circumferentially, the casing comprising a conical portion terminating in a cylindrical flange; a chine ring including a channel, one wall of which constitutes a flange fitting within the cylindrical flange of the casing, there being a second flange projecting laterally from the channel; a follower adapted to engage the second flange, and a lining within the casing.

8. In a device for fashioning barrels, an annular casing having its ends free, the casing comprising a conical body and a cylindrical flange connected with the body; brackets secured to the cylindrical flange and to the body, upon both sides of the meeting edges of the casing; clamping elements connecting the brackets; a bilge band with which the casing is removably engaged; a chine ring adapted to fit within the cylindrical portion of the casing; means for actuating the chine ring; and a lining within the casing.

9. As an article of manufacture, a barrel comprising an inner lining; a bung tube projecting from the lining; a bilge band connected with the bung tube; a monolithic covering surrounding the lining and extended between the lining and the bilge band; and a chine ring including a channel receiving a portion of the covering, a flange adapted to over-lie the outer face of the covering, and a second, angularly disposed flange adapted to overlie the outer end face of the covering.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JACOB MULLEN THOMPSON.

Witnesses:

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F. W. BLANKENHORN.