May 1, 1945. R. S. McCONNELL 2,375,122

KNOCKDOWN HOGSHEAD

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Fig. 1.

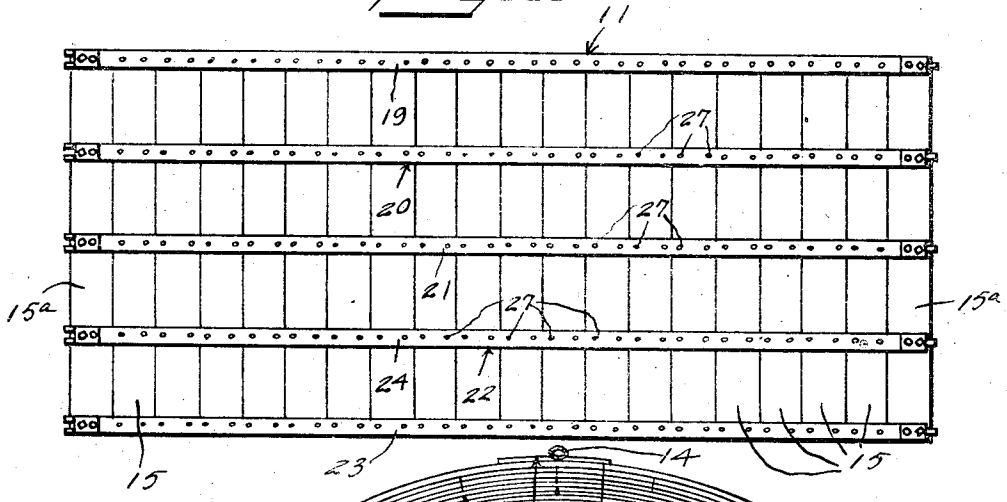


Fig. 2.

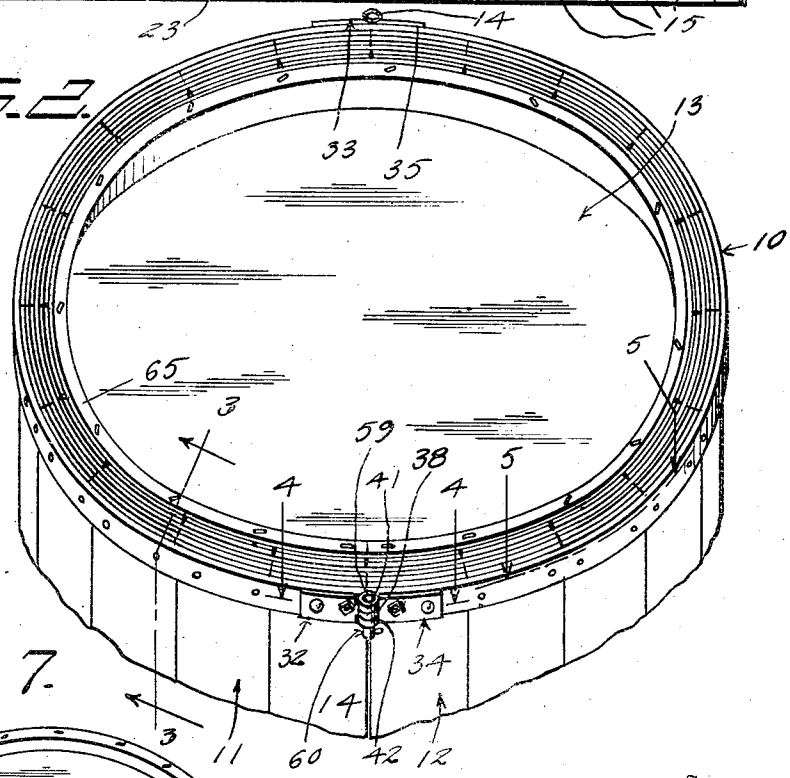
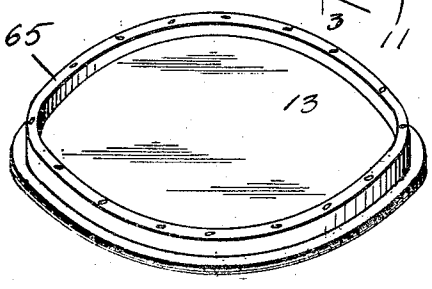


Fig. 7.



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Fig. 3.

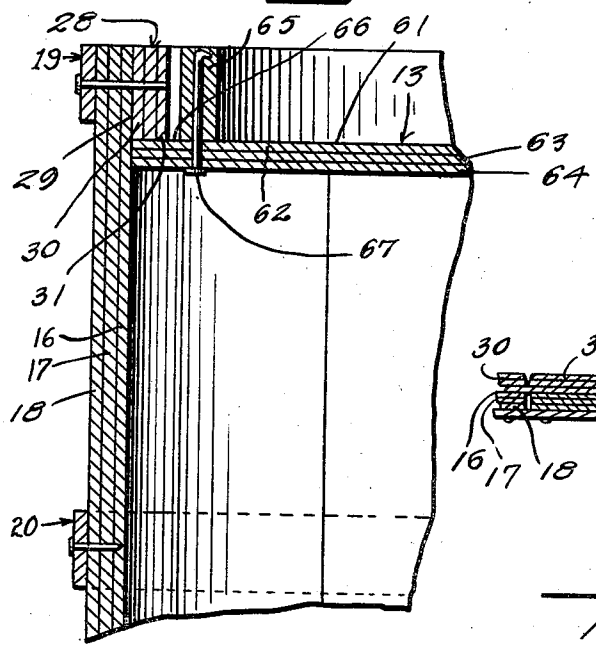


Fig. 5.

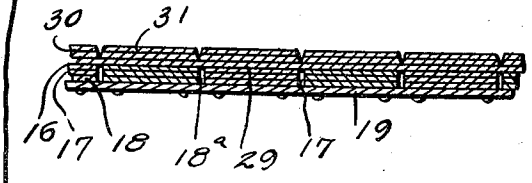


Fig. 6.

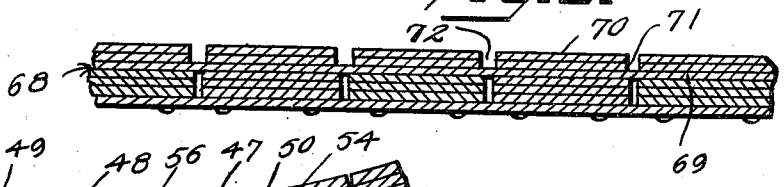
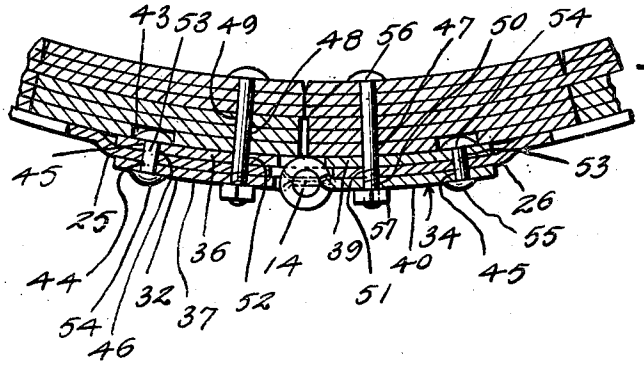


Fig. 4.



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KNOCKDOWN HOGSHEAD

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Application September 25, 1940, Serial No. 358,359

4 Claims. (Cl. 217—44)

This invention relates to a hogshead of the knockdown type designed primarily for use in shipment of tobacco, but it is to be understood that a hogshead, in accordance with this invention is for employment in any connection for which it may be found applicable.

The hogshead, in accordance with this invention is an improvement upon the hogshead forming the subject matter of my copending application, Serial No. 243,473, filed December 1, 1938, and it not only embodies the objects and advantages of the hogshead as set forth by the application aforesaid, but further aims in the providing of head elements in a manner whereby when the hogshead is set up and closed, its body and the liners for the latter will be reinforced.

The invention further aims to provide, in a manner as hereinafter set forth, a hogshead including correlating means for reinforcing its ends when packed for shipment.

The invention further aims to provide a new and improved form of head elements acting to strengthen the ends of the body of the hogshead thereby enhancing the life of the latter.

The invention further resides in the manner in which the liners, employed at each end of the body of the hogshead are constructed.

The invention further resides in the manner in which the correlated hinge members for the body sections of the hogshead are secured to such sections.

The invention further resides in the use of a pair of oppositely disposed inverted, flanged cup-shaped head elements for correlation with the liners of the body of the hogshead for reinforcing the ends of the latter when it is assembled.

The invention further aims to provide, in a manner as hereinafter set forth, a sectional knockdown hogshead which is simple in its construction and arrangement, strong, durable, capable of being expeditiously assembled and disassembled when occasion requires, having the sections or elements thereof so formed as to enable them to be readily stacked flat in a solid pile when the hogshead is disassembled, thoroughly efficient in the use intended thereby, and comparatively inexpensive to manufacture.

Embodying the aims aforesaid and others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically described and illustrated in the accompanying drawings, wherein are shown embodiments of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a front elevation, when extended, of a section of the body portion of the hogshead,

Figure 2 is a fragmentary view in top plan of the hogshead when assembled,

Figures 3, 4 and 5 are sectional views taken respectively on lines 3—3, 4—4 and 5—5, Figure 2.

Figure 6 is a fragmentary view in sectional plan of a modified form of liner, and

Figure 7 is a perspective view illustrating the form of a head element.

With reference to Figures 1 to 5, the hogshead includes a cylindrical body portion 10 formed of a pair of oppositely disposed sections 11, 12 of like form, a pair of oppositely disposed head elements 13 of like form, only one shown, and two sets of coupling members 14 for detachably connecting the body sections 11, 12 together and which are in the form of removable pintles or pivots for hinge members to be referred to carried by said body section.

Each body section includes a set of spaced parallel straight composite staves 15 of equal width and length. Each stay 15 is formed of a plurality of like plies, as shown, by way of example as three in number and indicated at 16, 17, 18. The ends and side edges of the plies are flush. The ends of the staves 15 align. The side edges of the staves 15 are squared. The spaces 18a between the staves 15 are of such width to provide for the side edges of one stave abutting a side edge of adjacent staves when the sections 11, 12 are detachably connected together to form the cylindrical body portion 10.

Each body section includes a series of superposed spaced narrow bendable metallic coupling straps, and by way of the example, the number of the straps are shown as five and indicated at 19, 20, 21, 22 and 23. The straps 19, 23 are the outer straps of the series. The straps for the major portion of their length are positioned against the outer face of a body section and such portion is indicated at 24. The remaining part of each strap is formed from the end terminal portions thereof and which are offset with respect to the ends of the portion 24 whereby the said end terminal portions are spaced outwardly from the remaining portion of the said outer face. The end terminal portions of the straps of body section 11 are indicated at 25 and those of the straps of body section 12 are designated 26. The straps extend from a point inwardly of and in proximity to one side edge to a point inwardly

of and in proximity to the other side edge of a body section. The straps are disposed in transverse relation with respect to the staves 15. The portions 24 of the straps are secured against the outer faces of the staves 15 of the set, other than the end staves 15a of the set by the passage of the spaced headed holdfast means 27 extended through said portions 24 into the intermediate staves and are clinched to the latter. The terminal portions 25, 26 of the straps are offset with respect to the end staves 15a. The strap 19 is flush at its upper edge with the top edge of a body section. The strap 23 is flush at its lower edge with the bottom edge of a body section.

Each body section will have secured to the upper and to the lower terminal portion of the inner face of its staves a composite liner structure 28 of like form. The structures 28 will be flush with the top and bottom ends of the staves. Only the upper liner structure is shown, but the description of its structural arrangement is to apply to the lower liner structure. Each liner structure consists of a bendable strip 29 of the desired width having its outer side positioned against an end terminal portion of the inner face of the set of staves. The strip 29 is of a length to extend from one side edge to the other side edge of a body section. A set of spaced parallel aligned blocks 30 are arranged against the inner side of the strip and a set of spaced parallel blocks 31 are arranged against the inner sides of the blocks 30. The side edges of the blocks 30 are oppositely beveled. The side edges of the blocks 31 are oppositely beveled and with the bevels of the blocks 31 forming continuations of the bevels of the blocks 30. The blocks 30 are arranged relative to the blocks 31 to formed spaced pairs of facewise abutting blocks and the bevels of the blocks 30 correlate with the bevels of the blocks 31 to form V-shaped spaces between the pairs of blocks. The inner end edges of the strip 29 and blocks 30, 31 align. The outer end edges of the strip 29 and blocks 30, 31 align and also align with an end edge of a stave. The holdfast means 27 employed for connecting the intermediate portions of the straps 19 to 23 to the staves 15, other than the staves 15a are also employed for connecting the liner structures 28, said straps 19 to 23 and such intermediate staves together.

Each body section includes two sets of hinge members. The hinge members of the sets for the body section 11 are indicated at 32, 33 and the hinge members of the sets for the body section 12 are indicated at 34, 35. The hinge members 32, 35 are of like form. The hinge members 33, 34 are of like form. The members 32, 33 are arranged to extend laterally from the side edges of body section 11. The members 34, 35 are arranged to extend laterally from the side edges of the body section 12. Each of the members 32, 35 consists of a yoke having inner and outer arms 36, 37 respectively and a bight in the form of a single barrel 38. Each of the members 33, 34 consists of a yoke having inner and outer arms 39, 40 respectively and a bight in the form of a pair of spaced parallel barrels 41, 42. The members 32 are disposed in overlapping relation with respect to one of the end terminal portions 25 of the straps of body section 11 and the members 33 are disposed in overlapping relation with respect to the other end terminal portions 25 of the straps of body section 11. The members 34 are disposed in overlapping relation with respect to one of the end terminal portions 26 of the straps of the body section 12 and the members 35 are disposed in overlapping relation with respect to the other end terminal portion 26 of the straps of body section 12. The inner arms of the yokes of the hinge members are disposed between the end terminal portions of the straps and the outer faces of the staves 15a. The outer arms of the yokes of the hinge members are positioned against the outer faces of the end terminal portions of the straps. The manner in which the two sets of hinge members are secured to a body section will now be referred to.

The manner of securing one of the sets of hinge members to each body section is the same as the manner in which the other set of hinge members is secured to such body section. There is illustrated the form of the means for securing each hinge member 32 to the body section 11, but it is to be understood that a similar means would be employed for securing each of the hinge members 33 to body section 11. There is illustrated the form of means for securing each hinge member 34 to the body section 12, but it is to be understood that a similar means would be employed for securing each of the hinge members 35 to body section 12. Each outer end stave 15a of a body section has its outer ply formed with a lengthwise row of spaced aligned openings 43, but only one of the openings of the row is shown with respect to a body section. The inner and outer arms of a hinge member and that terminal portion of a strap which such member overlaps are formed with aligned openings indicated at 44, 45, 46 which are aligned with an opening 43. Each outer stave 15a of each set of staves has its plys formed with aligned openings 47, 48, 49 and the inner and outer arms of a hinge member and that terminal portion of a strap which such member overlaps are formed with aligned openings 50, 51, 52 which are disposed in alignment with the openings 47, 48, 49.

The hinge members are riveted in overlapping relation with respect to the end terminal portions of the straps before these latter are secured to the body sections. The rivet employed in connection with a hinge member is indicated at 53, it is mounted in the aligned openings 44, 45, 46, and is upset with respect to the inner and outer arms of a hinge member, as at 54, 55, respectively. An opening 43 forms a clearance for the upset inner end of the rivet. Each hinge member is also secured to an end terminal portion of a strap and to a stave 15a by a holdfast device in the form of a headed bolt 56 and a nut 57. The bolt 56 is extended outwardly through the aligned openings 47, 48, 49, 50, 51, 52 and has its head bearing against the inner face of the liner 28 of the stave 15a. The shank of bolt 56 projects from the outer arm of the hinge member, and the nut 57 is mounted on the projecting end of the shank of the bolt, and screwed home against the outer face of the outer arm of the hinge member whereby the latter, an end terminal portion of a strap and an end stave 15a are clamped together. When a hinge member is secured to a body section, the bight thereof of such member is offset relative to and extends from a side of such body section.

When the body sections 11, 12 are connected together, the barrel of a hinge member 32 engages between the barrels of a hinge member 34 and the barrel of a hinge member 35 engages between the barrels of a hingle member 33. When a pair of the hinge members are interengaged, the barrels of such members align and extending through

said aligned barrels is a removable vertically disposed coupling member 14 for detachably connecting the pair of hinge members together whereby the cylindrical body portion 10 will be set up. Each coupling member 14 is in the form of a headed pin 59 formed near its lower end with a diametrically disposed opening for the passage of a removable cotter pin 60 which correlates with the head of the pin to removably secure the coupling member 14 to a pair of interengaging hinge members.

Each head element 13 will consist of a flat composite circular body part 61 constituting a closure formed of a plurality of superimposed plies 62, 63, 64 and a vertical disposed annular band-like member 65 of less diameter than the diameter of body part 61. The member 65 is mounted at its lower end on the top of the body part 61 inwardly of its edge. The body part 61 and member 65 are coaxially arranged and the relation of one with respect to the other forms the head element with what may be an annular flange 66 disposed in lateral relation with respect to the member 65. The diameter of the body part 61 will be substantially the same as the inner diameter of the body portion 10. The outer diameter of the member 65 is less than the inner diameter of a pair of correlating liner structures 28. The member 65 is fixedly secured to the body part 61 by vertically disposed spaced headed bolts or nails 67 extending upwardly through body part 61 and member 65. The heads of the bolts bear against the lower face of body part 61. The shanks of the bolts are clinched in the upper end edge of member 65. Each head element is of flanged cup-shape contour.

When the head elements 13 are arranged in the body portion 10 they are oppositely disposed and the flanges 66 thereof are arranged against the inner edges of the upper and lower liner structures 28 and the member 65 arranged in close spaced relation with respect to the inner sides of the said liner structures 28. The member 65 constitutes a reinforcing means for a head element and also what may be termed an auxiliary liner.

The sole difference between the modified form shown by Figure 6 and the form shown by Figure 5 resides solely in the shape of the openings formed in the liner structure 28. In Figure 6 the strip of the liner structure 68 is indicated at 69 and the blocks of each part employed in such structure at 70, 71. The spaces 72 between the pairs of blocks are of uniform width and not of V-form as shown in Figure 5. Otherwise than that as stated the form shown by Figure 6 will be the same as the form shown by Figure 2.

It is well known that in shipment, knockdown hogsheads carrying tobacco, when an end or a corner thereof is impacted upon at an angle, it generally results in the breaking of the body portion of the hogshead at a point below in proximity to a liner structure at an end of said body portion whereby the damage is of such extent that the hogshead is of no further use and access may be had to the tobacco contained. This breaking of the body of the hogshead oftentimes occurs on the stacking of the hogshead, and at times from the pitching or tossing of a marine vessel transporting the hogsheads. This has been the source of considerable damage and financial loss. By utilizing the form of head elements, in accordance with this invention, the aforesaid damage and financial loss is reduced to a minimum as the construction and arrangement of the head elements reinforce and strengthen the ends of the body portion of the hogshead where additional strength and reinforcement are required resulting in the non-bending inwardly of the terminal portions of said body part or the breaking away or bursting of a terminal portion. The members 65 of the head elements also function as an auxiliary liner and an abutment for the main liner.

What I claim is:

1. A hogshead comprising a cylindrical body portion open at each end and formed of a pair of oppositely disposed sections detchably connected together, two spaced pairs of oppositely disposed bendable liner strips secured to spaced points of the inner face of said body portion and each of a length corresponding substantially to the width of a body section, a set of side edge aligning pairs of facewise abutting liner blocks secured to the inner face of each liner strip, closures within the body portion and positioned against the inner edges of the said strips and blocks, and annular members anchored to the outer faces of said closures and opposing the inner faces of said blocks, said members having their inner ends mounted against said faces of said closures.

2. In a hogshead formed of disconnectable body sections having head retaining liners at each end thereof; end closures therefor, each closure comprising a circular head member engageable at the outer marginal portion thereof against the inner edge of a liner whereby said liner will hold said head against outward movement, and an annular member secured to the outer face of said head member and having the outer peripheral side thereof confronting the inner face of said liner, the outer diameter of said head member being substantially equal to the inner diameter of the connected body sections, and the outer edge of said annular member being flush with the adjacent ends of said liners.

3. A hogshead comprising a cylindrical body, inwardly projecting liner means at each end of said body, and a pair of heads one for each end of said body, each head comprising a disc-shaped member engaging at its outer side against said liner means, and an annulus fixed to the outer side of each head inwardly from the marginal edge thereof and closely adjacent to and confronting the inner face of said liner means, the outer edge of said annulus being flush with the outer edges of said body and said liner means.

4. A hogshead comprising a cylindrical side wall of staves with circumferential securing bands, and a circular head within said side wall, said staves extending a short distance beyond said head, spaced apart flange blocks secured inwardly to the extended portions of said staves, the outer ends of said blocks being flush with the outer edges of said staves and the inner ends of said blocks being in contact with said head to form a head retaining flange, and a continuous circular loop, the height of which is substantially that of said head retaining flange, secured concentrically to the outer side of said head, the outer face of said hoop opposing the inner faces of said flange blocks and reenforcing the extended portions of said staves against possible breakage when the hogshead is tilted or overturned.

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