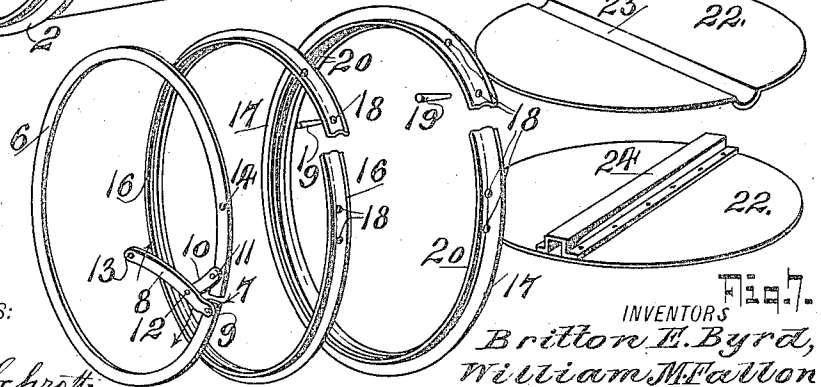
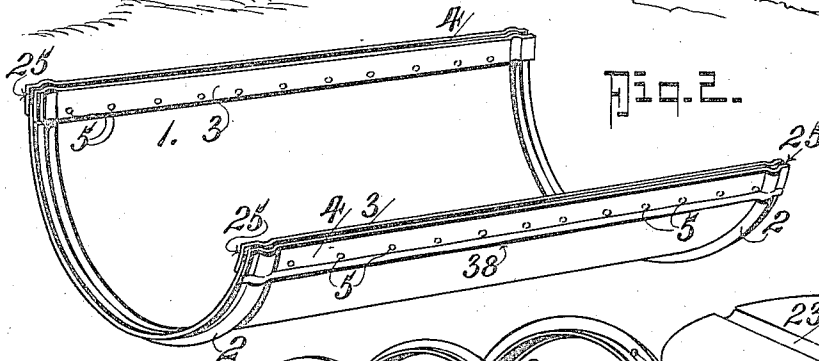
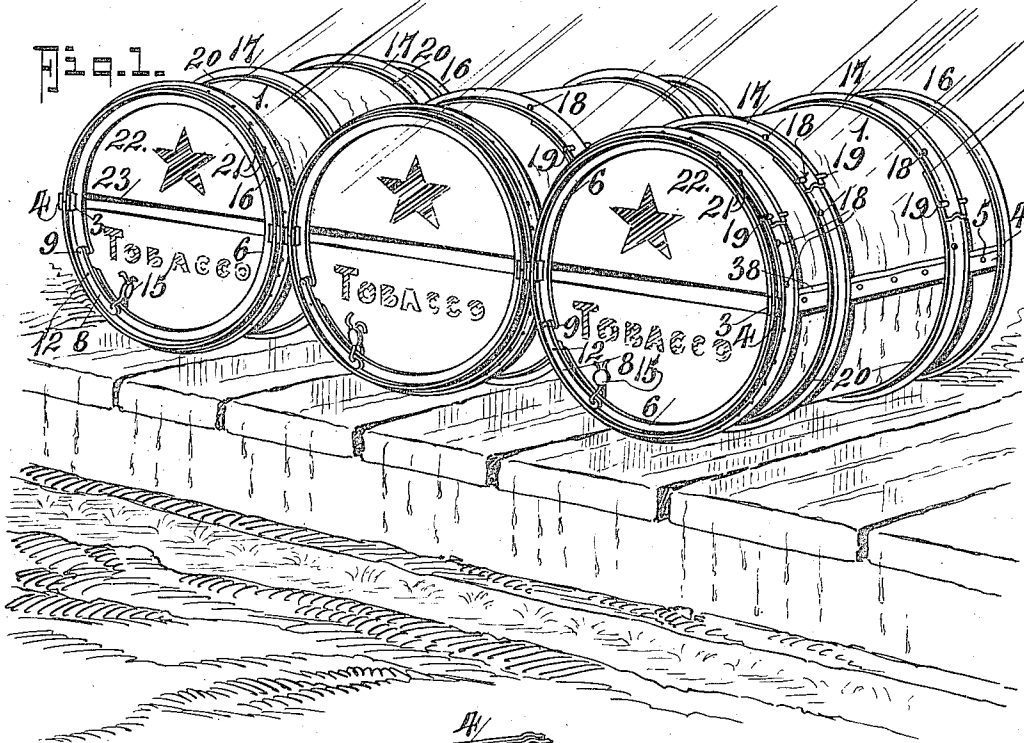


B. E. BYRD & W. M. FALLON.
 PACKING AND STORING VESSEL.
 APPLICATION FILED APR. 14, 1911.

1,045,944.

Patented Dec. 3, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

John B. Schrott
 Charles H. Wagner.

Fig. 3. Fig. 4. Fig. 5.

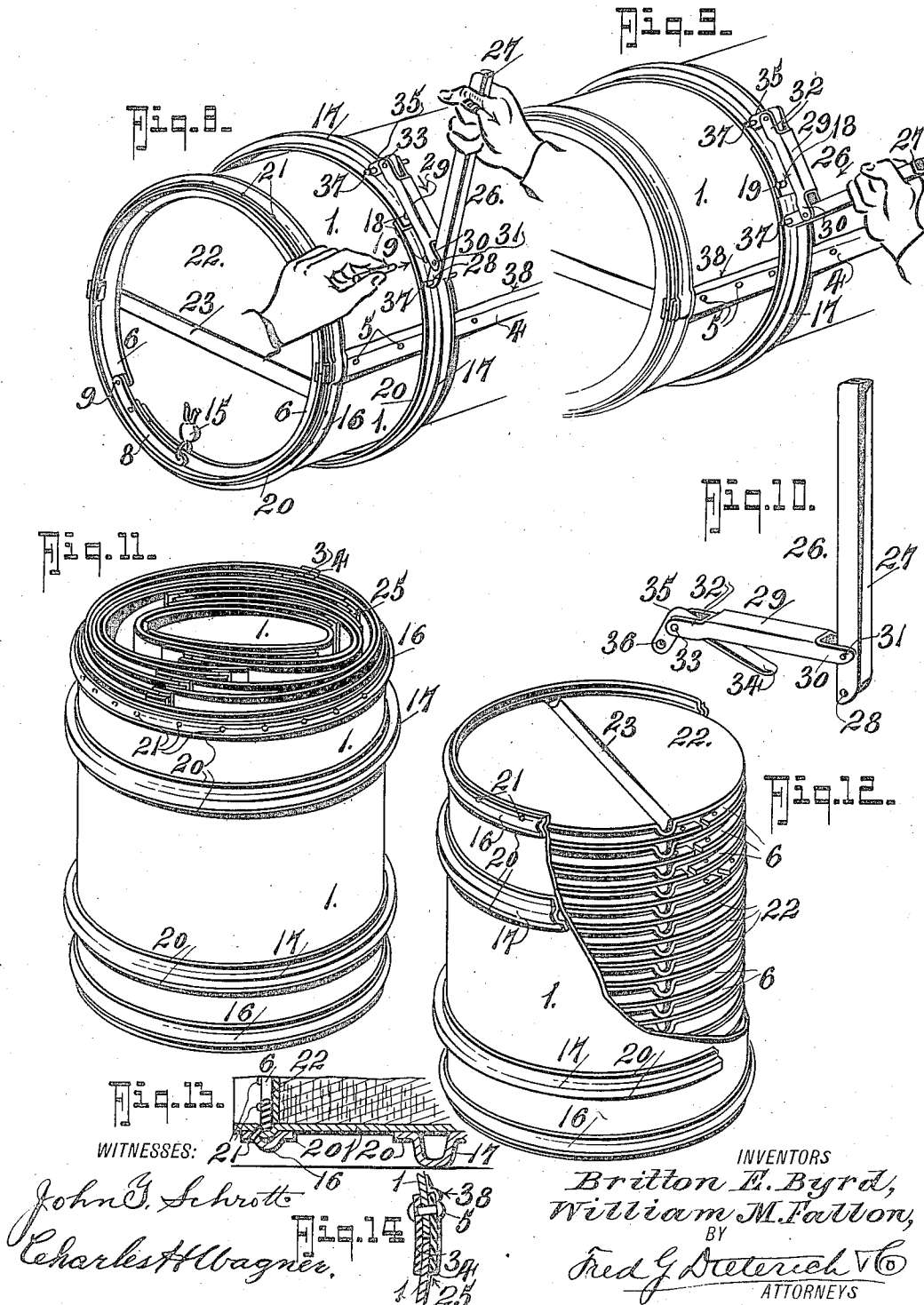
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Fig. 14

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UNITED STATES PATENT OFFICE.

BRITTON E. BYRD AND WILLIAM M. FALLON, OF DURHAM, NORTH CAROLINA.

PACKING AND STORING VESSEL.

1,045,944.

Specification of Letters Patent.

Patented Dec. 3, 1912.

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To all whom it may concern:

Be it known that we, BRITTON E. BYRD and WILLIAM M. FALLON, citizens of the United States, residing at Durham, in the county of Durham and State of North Carolina, have invented a new Packing and Storing Vessel, of which the following is a specification.

Our invention is an improved cask that has been particularly designed for use in packing and storing and shipping tobacco. In the tobacco industry, as at present generally practised, it is customary to prize the tobacco in casks of the ordinary stave built type, under hydraulic pressure. When the tobacco is shipped from one country to another it is usually required that a certain per cent. of the casks be opened and the contents thereof be weighed, tested and otherwise inspected for purpose of levying customs, duties and the like. This unpacking and repacking of the goods at the place of inspection is a long and tedious task, resulting not only in loss of time; but not infrequently resulting in injury to the tobacco in unpacking and repacking of same. Furthermore, owing to their weight the casks must be constructed heavy enough to withstand the hydraulic pressure used in packing. The freight or shipping charges on the packages are quite high and inasmuch as the casks upon arrival at their destination are frequently damaged in unpacking, and in view of the fact that the freight charges on the empty casks when assembled are great, it is not customary to return the casks to the shipper for redemption and hence the value of the same is lost.

It is, therefore, one of the objects of our invention to provide a "knock down" cask so constructed as to be of less weight than the corresponding size wooden cask; easy to put together and knock down; a cask that can be packed, knocked down, in one set up, so that the casks may be returned to the shipping point at low freight charges and redeemed.

Another object is to provide a cask, that will be weatherproof, whereby when stored in the open and exposed to rain, snow and the like, the same will act as a water shed to prevent the contents of the cask becoming moistened.

A still further object of our invention is to provide a sheet material cask composed

of as few parts as possible, while still maintaining sufficient strength and rigidity to serve its intended purposes. The cask which constitutes our invention in its general nature consists generally of two half sections lap jointed along their longitudinal edges, and beaded around the head ends, the two half sections being held together by external hoops that form runners upon which the cask and its contents may be rolled; sheet material heads suitably stiffened, if desired; and an expansion ring for retaining the heads in the cask body and also for maintaining the cross sectional configuration of the cask at all times.

Our invention also includes those novel details of construction, combination and arrangement of parts all of which will be first fully described and then specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which:

Figure 1, is a perspective view of several casks as they are stored and exposed to the weather. Fig. 2, is a perspective view of one of the half sections. Fig. 3, is a detail perspective view of one of the expanding rings. Fig. 4, is a detail perspective view of one of the end bands or hoops. Fig. 5, is a perspective of one of the "runner" hoops or bands and its holding pin. Figs. 6 and 7, are perspective views of different types of head plates. Figs. 8 and 9, are detail perspective views showing how the external hoops or bands are put on. Fig. 10, is a detail perspective view of a convenient tool employed in putting the hoops or bands in place and also in removing the same. Figs. 11 and 12, are perspective views showing the method of packing the cask sections, heads, etc., for return shipment or for shipment from the factory to the place of use. Fig. 13, is an enlarged detail section showing the draining holes in the ends of the cask section. Fig. 14, is a detail cross section showing the joint between the two half sections.

Referring to the drawings in which like numerals and letters of reference indicate like parts in all the figures, 1 designates the two cask half sections which are composed of sheet material and have semi-annular beads 2 at their ends, the beads being concavo-convex in cross section. One of the half sections 1 is provided with an outer and inner longitudinal strip 4—3, the two strips

3 and 4 being riveted at 5 to the longitudinal edges of one of the half sections 1 and provide channels 25 to receive the longitudinal edges of the other half section which is of identical form with the strip carrying half section excepting that it carries no strips 3 and 4.

6 designates the expanding ring which is adapted to fit into the bead 2 and when expanded will be securely held in the cask to retain its cross section configuration and form an abutment to retain the cover 22. The ring 6 is of the split type whose ends are separated as at 7 and connected together by a spreader device which consists of a lever 8 which is pivotally connected at 9 to one of the ring ends, a link 10 being pivoted at 12 to the lever 8 and at 11 to the other end of the ring 6, so that when the lever is moved in the direction of the arrow in Fig. 3, the ends of the ring will be further separated at 7 thus expanding, as it were, the ring. The ring 6 is provided with a hole 14 and the lever 8 has a hole 13 through which holes a seal 15 may be passed to seal the cask, as best indicated in Fig. 1 of the drawings.

16 designates a concavo-convex band that is adapted to be secured around the cask ends over the beads 2 in a manner as will be hereinafter clear. The band or hoop 16 has pin holes 18 to receive the holding pin 19 that locks the ends of the split band or hoop together and also to receive pins 37 that hold the contracting tool 26 to the band while the band is being put on the cask or removed.

17 designates a pair of intermediate bands of concavo-convex form in cross section, the bands 17 being of greater depth or size than the band 16 to form runners upon which the cask may be rolled. The band 17 is of the split type and is provided with pin holes 18 for the pins 19 and 37. The band 17 as well as the band 16 is provided with flange portions 20 to contact the body of the cask, the band 16 and the cask body adjacent to the outer side of the beads 2 are provided with draining apertures 21 to permit any water that may run into the cavity of the beads 2 to drain out of the same when the casks are stored as indicated in Fig. 1 of the drawings.

In order to prevent water running into the cask through the connection along the longitudinal edges of the sections, the strip carrying section 1 has the outer strip 5 soldered to the section as at 38, see Figs. 1 and 14.

The covers 22 are in the nature of disks and are provided with strengthening members 23 or 24, as may be found desirable.

In practice, when it is desired to set up a cask, the operator takes a pair of half sections and joins their longitudinal edges as

indicated in Fig. 14, after which he puts the bands 17 and 16 in place. Each of the bands 17 and 16 are contracted onto the cask sections in the manner best illustrated in Figs. 8 and 9 of the drawings by reference to which it will be seen that when the band has been put around the cask loosely, a tool 26, shown best in Fig. 10, is put upon band 37 to draw the ends of the band toward one another to cause them to tightly grip the cask body with retaining friction until the proper pin holes 18 come into alignment, at which time a pin 19 is slipped into place as indicated in Figs. 8 and 9 to hold the band from expanding after which the tool 26 is removed and the band will be held on by retaining friction.

The tool 26 is composed of the lever 27 having the lower bifurcated end to straddle the loop of the band and provided with holes 28 to receive the holding pin 37. A channel iron 29 having bifurcated ends 30 and 32 is pivoted at 31 to the lever 27 and receives an L-lever 35 to which it is pivotally connected at 33 the L-lever having a bifurcated end 36 to straddle the loop of the band and receive a holding pin 37. The lever 35 has a presser section 34 which holds the upper end of the band down into contact with the lower end as the band is put onto the cask body.

In practice the casks are shipped from the factory to the place where they are to be loaded in a knocked down condition. One of the casks is set up, the heads only being omitted, after which the half sections of a dozen or more casks are telescoped into the set up cask, as indicated in Fig. 11, and thus form a convenient package for shipment. In a similar way the heads 22 and the rings 6 may be shipped in a cask and if desired a separate cask may be used for shipment of the rings 16 and 17 or they may be loaded in with the heads 22 and rings 6, as may be found convenient.

When the casks arrive at the loading place there is no crate to be wasted or destroyed as each part of the shipped package of casks may be utilized in building up casks into which the tobacco is packed for shipment; similarly, after the casks arrive at their destination, they may be knocked down and re-shipped to the starting point for redemption and re-use.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the complete construction, operation and advantages will be apparent to those skilled in the art.

What we claim, is:

1. A cask composed of a plurality of longitudinally divided sections having interlocking longitudinal edges and having their ends provided with annular outwardly projecting beads, bands or hoops fitted around said sections and around said beads on the

outside of the same, expanding rings fitted on the inside of said sections in the planes of said beads, means for expanding said rings against said section ends to retain them in place, and heads fitted into said sections and retained by said rings.

2. A cask composed of a plurality of longitudinally divided sections having interlocking longitudinal edges and having their ends provided with annular outwardly projecting beads, bands or hoops fitted around said sections and around said beads on the outside of the same, expanding rings fitted on the inside of said sections in the planes of said beads, means for expanding said rings against said section ends to retain them in place, and heads fitted into said sections and retained by said rings, and runner hoops contracted on the outside of said sections between the ends thereof.

3. A cask composed of a plurality of longitudinally divided sections having interlocking longitudinal edges and having their ends provided with annular outwardly projecting beads, bands or hoops fitted around said section and around said beads on the outside of the same, expanding rings fitted on the inside of said sections in the planes of said beads, means for expanding said rings against said section ends to retain them in place, and heads fitted into said sections and retained by said rings and annular hoops removably held with retaining friction on the outside of said sections around the same between the ends thereof.

4. A cask composed of two sheet material half sections longitudinally divided and having concavo-convex beads encircling the same adjacent to the ends of the sections, sheet material split hoops of substantially U-shape in cross section contractedly held by retaining friction around beads of said half sections to retain the sections in position relative to one another and thereby defining a cylinder, disk-like heads fitted into the ends of said cylinder, and expanding rings expandingly held in said cylinder beads to retain said heads in position, said rings including a split ring proper and a spreader connecting the ends thereof.

5. A cask composed of a plurality of part-cylindrical sections longitudinally divided, means holding said sections together along their longitudinal edges, said sections having outwardly projecting end beads to leave internal grooves, bands contracted on the outside of said sections around said beads, disk like heads held in said sections, a split ring distinct from the heads held in said end

grooves to retain said heads, and means for expanding said rings in said grooves.

6. A cask composed of a plurality of part-cylindrical sections longitudinally divided, means securing said sections together along their longitudinal edges, said sections having outwardly projected end beads to leave internal grooves, bands contracted on the outside of said sections around said beads, disk like heads held in said sections, a split ring distinct from the heads held in said end grooves to retain said heads, means for expanding said rings in said grooves, and means coöperatively connecting said ring with its expanding means for sealing the two together.

7. A knock-down cask composed of longitudinally divided sections, hoops contracted on said sections to hold them together to define a cylindrical container, said container having an internal groove at each end and an external annular bead at each end, a split ring held in each of said internal grooves, a lever pivoted to said ring at one end and linked to the other end of the same, and means for connecting said lever to said ring to seal the same together when said ring is expanded, and head disks retained in said container by said rings.

8. A cask including a plurality of longitudinally divided part cylindrical sections, means for holding the longitudinal edges of the sections in position, said sections having outwardly projecting beads encircling the same at the outer ends of the sections, split end bands contracted and removably held around said beads to retain said sections in their positions, means for removably connecting the ends of said split bands together, substantially shown and described.

9. A cask including a plurality of longitudinally divided part cylindrical sections, means for holding the longitudinal edges of the sections in alinement, said sections having outwardly projecting beads encircling the same at the outer ends of the sections, split end bands contracted and removably held around said beads to retain said sections in their positions, means for removably connecting the ends of said split bands together, expanding rings held in said end beads and disk-like heads retained in the sections by said expanding rings.

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WILLIAM M. FALLON.

Witnesses:

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W. JAS. BODDIE.