

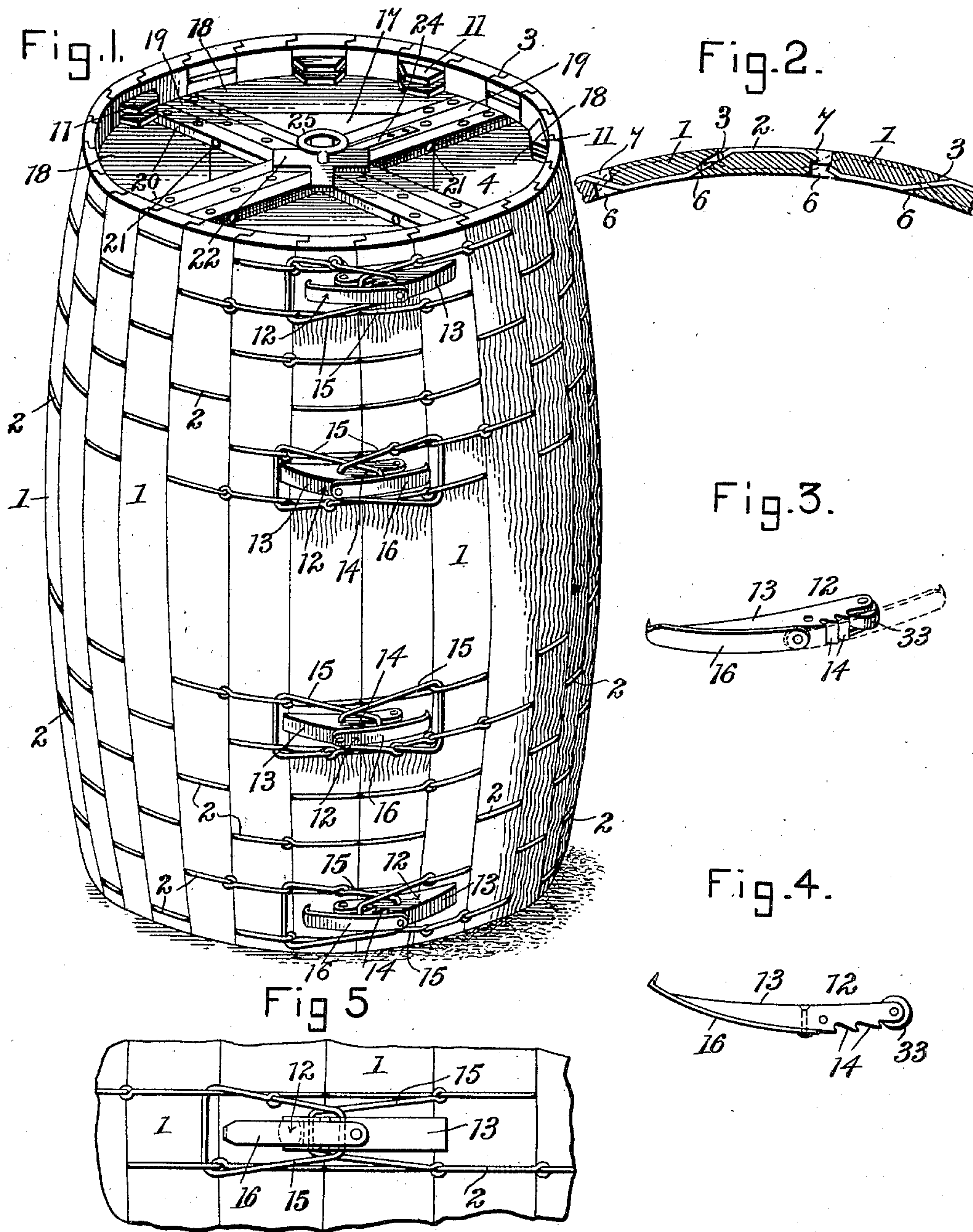
No. 652,305.

Patented June 26, 1900.

E. WALTON.
KNOCKDOWN BARREL

(Application filed Dec. 16, 1898.)

(No Model.)



Witnesses
Edwin S. McKee.
R. M. Smith.

Edward Walton Inventor
By *E. J. Siggers* Attorney

UNITED STATES PATENT OFFICE.

EDWARD WALTON, OF PENRITH, VIRGINIA.

KNOCKDOWN BARREL.

SPECIFICATION forming part of Letters Patent No. 652,305, dated June 26, 1900.

Application filed December 16, 1898. Serial No. 699,480. (No model.)

To all whom it may concern:

Be it known that I, EDWARD WALTON, a citizen of the United States, residing at Penrith, in the county of Cumberland and State of Virginia, have invented a new and useful Knock-down Barrel, of which the following is a specification.

My invention relates to shipping and storing receptacles, and particularly to those adapted to be knocked down for return shipment in quantities; and the object in view is to provide a receptacle of the barrel or hogshead type which is light-proof and practically air-tight to adapt it for the shipment of tobacco-leaf without exposure to deteriorating influences.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a receptacle constructed in accordance with my invention. Fig. 2 is a detail horizontal section of a portion of the receptacle-wall in the plane of one of the warp-strands. Fig. 3 is a detail perspective view of one of the locking devices for connecting the free ends of the fabric composing the wall of the receptacle, showing in dotted lines the initial position of the locking-tongue. Fig. 4 is a detail plan view of the same. Fig. 5 is an elevation of the means for connecting the extremities of the fabric.

Similar reference characters designate corresponding parts in all the figures of the drawings.

The receptacle wall or side is constructed of a fabric consisting of a plurality of contiguous staves or woof members 1, held in their proper relative positions by flexible hoops or warp members 2, consisting of strands of wire, heavy cord, or similar material. The staves or woof members are rabbeted at their side edges to form tongues 3, and the tongues at opposite edges of a stave are arranged, respectively, flush with the exterior and interior surfaces of the stave, whereby the staves are of a uniform construction and whereby as the fabric is set up to form a cylindrical wall the relative deflection of the staves from a common flat plane causes the inner tongue of

each stave to bear firmly in the rabbet in the contiguous edge of the adjoining stave to form a light-proof and practically air-tight joint. In practice the warp-strands are preferably countersunk in the inner surfaces of the staves or are let into transverse grooves therein to lie flush with the inner surfaces of the staves, and thus provide an unbroken or unobstructed interior surface for the receptacle. The warp members, particularly between the planes of the terminal heads 4 and 5, are separated or spaced apart, and each strand is interwoven with the staves to pass from the inner surface of one stave to the outer surface of the next or adjoining stave, while the adjacent strands are arranged reversely to lie in contact with the outer surfaces of those staves which are spanned at their inner surfaces by the first-named strand. Thus assuming that the warp-strands are arranged in pairs the members of each pair are interwoven in opposite directions with the staves to bear in opposite directions, and thus hold the staves in their proper relative positions. In order, however, to avoid the formation of abrupt bends in the strands, the contiguous edges of adjoining staves are notched or kerfed, and each notch or kerf consists of a cut which is only equal in width to the diameter of a single strand and is formed diagonally or with a floor forming a strand-seat, which is inclined or disposed obliquely to the planes of the inner and outer surfaces of the staves. Obviously those kerfs which are formed in the tongues of the staves or in the tongue sides of the staves are deeper or extend inwardly a greater distance than those (7) which are arranged to intersect the rabbets of the staves or are formed in the rabbet sides of the staves. For instance, referring to Fig. 4, it will be seen that the tongue-kerfs or strand-seats 6 extend from one surface of a stave either inwardly or outwardly to intersect the contiguous rabbet at the angle formed by the walls of the rabbet, the kerfs 6 in the contiguous edges of adjoining staves being arranged to register, while the rabbet-kerfs or strand-seats 7 for the strand which intersects the plane of the first-named strand also communicate with the rabbets at the angle between the walls thereof; but the tongue-kerfs 6 are of greater length than the rabbet-

kerfs or extend inward a greater distance than the latter, as shown. The object of my construction is to cause the cooperating warp-strands to occupy planes which intersect at the bottoms or floors of the rabbets or in the planes of those walls of the rabbets which are in contact and lie approximately midway between and parallel with the exterior and interior surfaces of the staves. Each strand-seat is of a depth less than the thickness of the stave and approximately equal with the depth of the rabbet or the thickness of the tongue, or if the depth of the rabbet is different from the thickness of the tongue the depths of the strand-seats 6 and 7 are respectively equal with the thickness of the tongue and the depth of the rabbet. A further feature of importance in connection with this arrangement of the strands is that the width of each kerf being equal only to the diameter of the strand which is to lie therein is completely closed by said strand, whereby light and air are practically excluded and a sufficient flexibility is allowed to adapt the staves to be deflected slightly from a common plane to form a cylindrical wall when the receptacle is set up.

The inner and outer chime-blocks 10 and 11, between which are arranged the edges of the heads 5 and 6, are held in place by means of warp members located in common planes therewith.

The terminal edges of the fabric constituting the side wall of the receptacle are secured together by locking devices consisting, in the construction illustrated, of levers 12, fulcrumed at intermediate points upon swinging loops 13, carried by one end of the wall fabric, and provided with notches 14 to engage swinging loops 15, carried by the other end of the wall fabric, each lever having a plurality of such notches, and locking-tongues 16, pivotally mounted upon said levers to hold the latter in their normal positions. The said loops are loosely connected with the warp-strands, whereby when the loops are strained by swinging the levers to their normal positions such strain is applied to the strands to draw the staves toward each other and maintain the contiguous edges thereof in close contact. The locking-tongues are tapered toward their free ends and are turned or deflected inward at their points to form detents or spurs to engage the outer surface of the fabric and maintain the tongues against accidental displacement. The tongues, as shown, are pivoted for swinging movement parallel with the levers by which they are carried.

To facilitate the movement of the catch-lever in drawing the edges of the wall fabric together, I preferably mount an antifriction roller or traveler 33, adapted to traverse the exterior surfaces of the staves as the lever is turned toward its locked position.

No claim is made herein to the locking devices described; but they have been illustrated and their construction set forth, as some fas-

tening means is of course necessary to hold the flexible wall in shape to form a barrel or hogshead.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. A fabric for the purpose named, having woof members consisting of staves, and flexible warp members, consisting of strands arranged in different planes and interwoven in opposite directions with the woof members, the latter being provided in their contiguous meeting edges with kerfs forming warp-strand seats equal in width with the diameters of said strands and filled thereby, substantially as specified.

2. A fabric for the purpose named, having woof members consisting of staves rabbeted at diagonally-opposite corners to form tongues, and flexible warp members, consisting of separated strands interwoven in opposite directions with the woof members, and fitting in kerfs or seats, equal in width with the diameters of the strands, and communicating with the rabbets at the angles between the perpendicularly-disposed walls thereof, substantially as specified.

3. A fabric for the purpose named, having woof members consisting of staves provided with rabbeted edges forming tongues, arranged respectively flush with the opposite inner and outer surfaces of the staves, and flexible warp members, consisting of separated strands interwoven in opposite directions with the woof members, and fitting in kerfs or seats, equal in width with the diameters of the strands, and communicating with the rabbets at the angles between the perpendicularly-disposed walls thereof, substantially as specified.

4. A fabric for the purpose named, having woof members consisting of staves provided with rabbeted edges forming tongues, and also provided with transverse strand-seats formed in opposite sides of the staves adjacent to their edges, each seat having a portion of its floor inclined or oblique and being of a depth less than the thickness of the stave, and warp-strands interwoven with the staves and fitted in said strand-seats, substantially as specified.

5. A fabric for the purpose named, having woof members consisting of staves provided with rabbeted edges forming tongues, and also provided with transverse strand-seats formed in opposite sides of the staves adjacent to their edges, each seat being of a depth less than the thickness of the stave, and the seats at the tongue sides of the staves being longer than those at the rabbet sides thereof, and warp-strands interwoven with the staves and fitted in said strand-seats, substantially as specified.

6. A fabric for the purpose named, having
woof members consisting of staves provided
with rabbeted edges forming tongues, and
also provided with transverse strand-seats
5 formed in opposite sides of the staves adja-
cent to their edges, the seats in the tongue
and rabbet sides of the staves being respec-
tively equal in depth with the tongues and
rabbets, and warp-strands interwoven with

the staves and fitted in said strand-seats, sub- 10
stantially as specified.

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

EDWARD WALTON.

Witnesses:

W. F. DAVIS,
C. M. PALMORE.