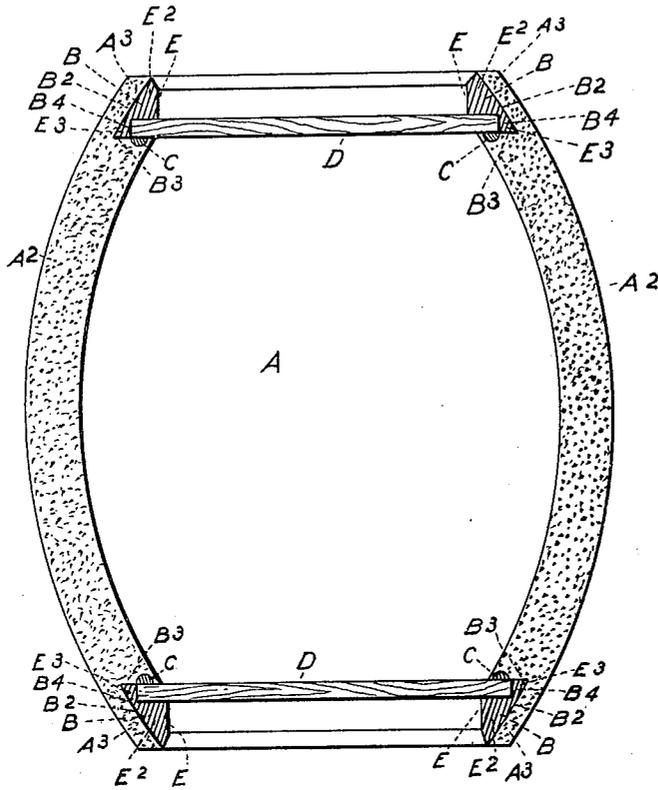


No. 657,134.

Patented Sept. 4, 1900.

G. H. RICKE.  
CASK, BARREL, OR KEG.  
(Application filed May 21, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE H. RICKE, OF CINCINNATI, OHIO, ASSIGNOR OF TWO-THIRDS TO  
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## CASK, BARREL, OR KEG.

SPECIFICATION forming part of Letters Patent No. 657,134, dated September 4, 1900.

Application filed May 21, 1900. Serial No. 17,466. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. RICKE, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Casks, Barrels, or Kegs, of which the following is a specification.

One of the objects of my invention is to provide a new and extremely-useful means of holding the heads of barrels, casks, kegs, and the like in place in the barrel.

Another object of my invention is to provide means whereby the head, when thus locked, shall form a liquid-tight joint with the rest of the barrel, &c.

The several features of my invention and the various advantages resulting from their use, conjointly or otherwise, will be apparent from the following description and claims.

Inasmuch as the illustration of my invention may be applicable in the same manner to barrels, casks, kegs, and the like, I will now proceed to describe my invention in connection with a barrel.

In the accompanying drawing, making a part of this application, the figure represents a vertical central section of a barrel illustrating my improvements.

I will now proceed to describe my invention in detail.

A indicates a barrel,  $A^2$  the body or main portion thereof, and  $A^3$  the chime. Near each end of the body and in the latter I form an annular recess B. This recess has a back side  $B^2$ , extending from the adjacent end of the barrel to the bottom  $B^3$  of this recess. The plane of this bottom is substantially parallel to the plane of the end of the barrel. The side  $B^2$  preferably makes an acute angle with the bottom  $B^3$ . In the bottom  $B^3$  of this annular recess B is an annular recess C. The barrel-head D is of a diameter great enough not only to rest upon the bottom  $B^3$ , but to extend over the recess C and toward the chime of the barrel; but the peripheral edge of the head D does not reach the side  $B^2$  of the annular recess B, but stops short thereof and leaves a triangular-shaped recess whose bot-

tom is the bottom of the recess B and whose outer wall is the side  $B^2$  of the recess B and whose inner wall is the peripheral edge of the barrel-head.

When the barrel-head is to be fastened into the barrel, a water-tight packing is duly laid in the annular groove C and extends slightly above the bottom  $B^3$ , so that the adjacent surface of the barrel-head may rest upon it, (the packing.) The barrel-head is then laid in place, as shown in the drawing, and the operation of locking the head in place is next begun and is as follows: I take a plastic material, preferably wood or straw pulp, properly prepared to have a body and to have a tough continuity when dry. This filler and locking-piece I denominate E. I place the plastic pulp upon the barrel-head and near its outer edge and also introduce it between the edge of the head D and the chime, locating it in the recess  $B^4$ . I then apply suitable means for compressing this plastic material. A die is one of the most effective of such means. I thoroughly compress this plastic material. The latter becomes solid and locks itself and the head securely in the barrel. That portion of the interlocking pulp contained in the recess  $E^3$ , (triangular in cross-section,) connected to and in one with the rest of the part B, operates as a locking-key to prevent the withdrawal of the part B and also of the barrel-head. The junction of the head with the rest of the barrel may be made liquid-tight in any suitable manner. I have already specified one mode of such means—viz., when the plastic material is compressed, the barrel-head is pressed down upon the packing in the groove C and compresses the packing, and thus renders the junction so close that liquids or fluids within the barrel will not leak past this joint.

While I have thus far described the construction of one end of the barrel and the combination of the head, packing, and plastic material therewith at the chime, I desire it to be understood that such combination may exist at the other end of the barrel, and ordinarily such construction and combination is to be present at each end of the barrel.

Such barrels, casks, kegs, and the like will be those which are fluid-tight and are filled and emptied at the bung.

My invention is applicable to barrels, &c., of various materials.

I have shown my invention in combination with a barrel made of compressed pulp. Thus the barrel in the drawing illustrates one manufactured out of pulp. In such a barrel the annular recess B at the chime is readily formed by dies at the time the barrel is formed.

My invention is simple and economical in construction, readily operated, and effective in results.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination of a barrel having an end interior recess B having a wall B<sup>2</sup>, a bottom B<sup>3</sup>, a head D resting on the said bottom B<sup>3</sup>, and forming a subrecess B<sup>4</sup> connected to the rest of the recess B, and a locking device consisting of the annular part E, made of a plastic material, and compressed into the subrecess B<sup>4</sup>, forming a main portion E resting in part upon the head and a key or locking part E<sup>3</sup> connected thereto, substantially as and for the purposes specified.

2. The combination of a barrel having an end interior annular recess B, formed with a wall B<sup>2</sup>, and a bottom or ledge B<sup>3</sup>, and a locking device made of plastic material compressed upon the head and into the subrecess B<sup>4</sup> at the peripheral edge of the head, and a packing for rendering the junction of the parts fluid-tight, substantially as and for the purposes specified.

3. The combination of a barrel having an end interior annular recess B, formed with a wall B<sup>2</sup>, and a bottom or ledge B<sup>3</sup>, and an annular recess C in such ledge or bottom, a packing present in such recess, a head resting on the said bottom, and forming a subrecess B<sup>4</sup>, connected to the recess B, and a locking device made of plastic material compressed upon the head and into the recess B<sup>4</sup>, forming a locking ring B<sup>2</sup>, B<sup>3</sup>, substantially as and for the purposes specified.

4. A barrel whose main portion is composed of plastic material, compressed to shape, and provided at end with an annular recess, and a head adapted to rest upon the bottom thereof and form a sublocking recess, and an annular recess for packing, the packing, and a plastic ring compressed onto the head and into the recess and sublocking recess, substantially as and for the purposes specified.

5. As a new article of manufacture, a barrel composed of compressed pulp and provided at the end with an annular recess adapted to receive a head admitted through the end of the barrel and resting upon the bottom of this recess, the latter extending upward and inward toward the chime, and at its base of a diameter greater than the head and leaving a space wherein a ring of plastic material may be pressed, and lock the head in and to the barrel, substantially as and for the purposes specified.

GEORGE H. RICKE.

Attest:

SAMUEL A. WEST,  
K. SMITH.