No. 888,334. PATENTED MAY 19, 1908.

D. B. JONES.

COLLAPSIBLE BARREL.

APPLICATION FILED FEB. 19, 1906.

Fig. 1.

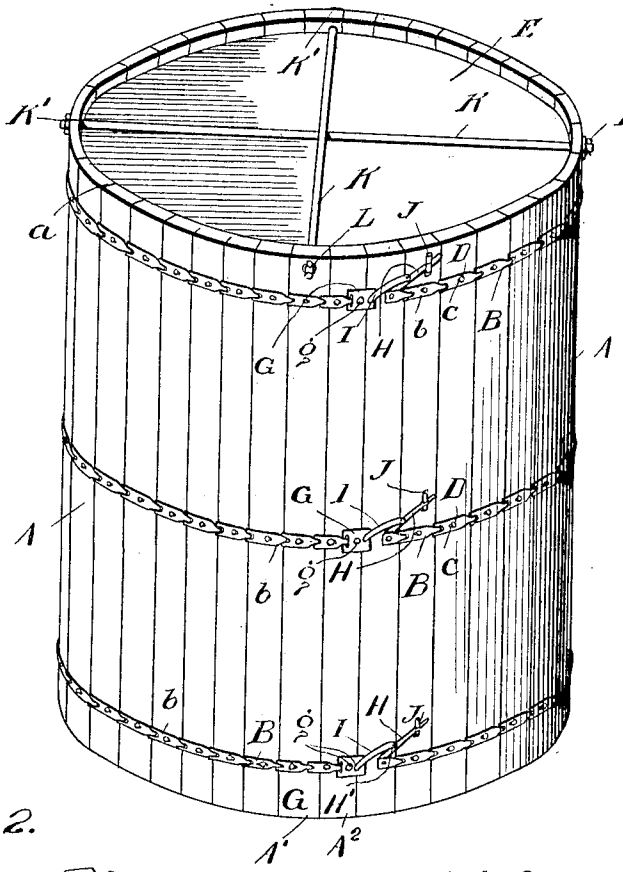


Fig. 2.

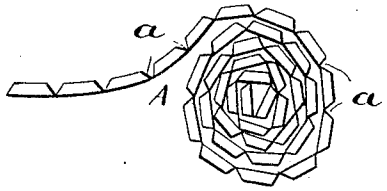


Fig. 3.

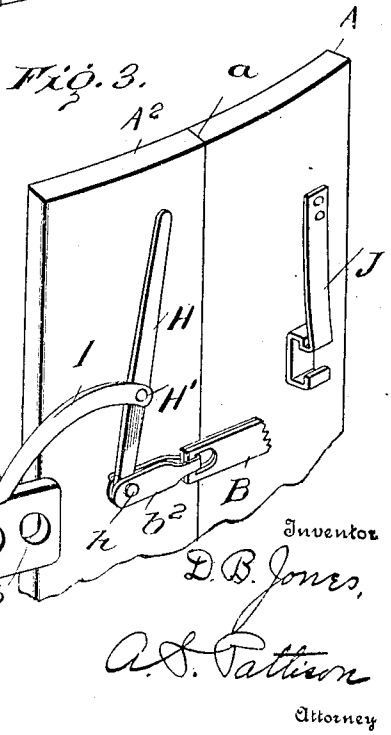


Fig. 4.

Witnesses
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COLLAPSIBLE BARREL.

No. 888,334. Specification of Letters Patent. Patented May 19, 1908.

Application filed February 19, 1906. Serial No. 301,875.

To all whom it may concern:

Be it known that I, DAVIS B. JONES, a citizen of the United States, residing at Battleboro, in the county of Nash and State of North Carolina, have invented certain new and useful Improvements in Collapsible Barrels, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in barrels, and pertains more particularly to that class of barrels known as collapsible or knock-down barrels.

The object of my invention is to provide a barrel in which the staves are secured together by a chain, and when knocked down, the staves can be more readily rolled into a compact bundle for the purpose of shipping.

Another object of my invention is to provide a knock-down barrel which can be readily and quickly set up or knocked down, and at the same time, forming a cheap, simple and substantial barrel in which a stave can be readily replaced when one becomes broken.

In the accompanying drawings, Figure 1, is a perspective view of my improved barrel set up. Fig. 2, is an end view of the staves rolled for shipping or storing. Fig. 3, is an enlarged side view of the portion of the barrel, showing the clamping levers for locking the same, and also showing the connection between the chain and the staves. Fig. 4, is an enlarged perspective view of the clamping bolt.

Referring now to the drawings, A represents the staves which, as shown in the drawings, are preferably straight for the purpose of forming a more compact bundle when rolled, but could be made bowed like the ordinary stave, although the construction forms no part of the invention, as it is a matter of the character of the barrel to be constructed. The edges of the staves are beveled inwardly, as shown at *a*, in order that the adjacent edges of the staves will firmly abut each other when the barrel is set up, and thus form practically a tight solid barrel, but could, if desired, be spaced apart when a barrel of that character is desired, or several other forms and arrangements could be used. The said staves are as shown, connected together by three chains B, one at each end and one in the center, although any desired number of chains may be used. The links *b* of the said chains B are so arranged and of such a length that there is a link opposite or secured to each stave, and of a length equal to the width of the stave. The said links centrally between its ends, are provided with elongated openings C through which the nails or rivets D pass for securing the links to the staves, and said openings C being of an elongated form for the purpose of allowing of a slight movement of the link on the stave to allow it to adjust itself, and thus avoiding the necessity of such a fine adjustment in placing the links on the staves. The arrangement of a link opposite each stave makes a stronger chain, and allows the stave to be rolled up into a much more compact bundle, as the connection between each stave works like a hinge. The single link feature also makes it much more easy to replace a broken stave than when several links are opposite each stave, and yet also prevents of any twisting of the staves.

The staves on the inside adjacent the top and bottom are provided with registering grooves which form the usual circumferential groove when the barrel is set up, and are to receive and support the heads E of the barrel. The heads are shown of the ordinary structure, but could, if desired, be made of two sections, and hinged together for the purpose of folding and thus forming a more compact bundle.

The end of the chain opposite the stave A′ is provided with a short link *b′* which is of a length about half that of the links *b* and is secured to the stave A′ in the same manner as the links *b*. Secured to the end of said short link *b′* is the fastening plate G which, as shown, is of an elongated form and provided with a series of openings *g* in which the lever is adapted to enter, which I will proceed to describe. The opposite end of the chain opposite the stave A^2 is provided with a short link b^2 which is secured centrally to the stave A^2 by means of the pivot *h*, and thus said link is secured to the stave. Carried by said pivot *h* is an upwardly-extending lever H. Pivotally connected to the said lever H intermediate its ends at H′ is a hook I which is adapted to engage or enter one of the openings *g* in the fastening plate G, and by swinging the said lever downward the chain is drawn forward and the staves are firmly clamped together around the heads. The stave adjoining the one carrying the lever is provided with a spring catch J which is adapted to engage the outer end of the lever

when it is swung downward and firmly hold it in its downward position and hold the barrel in its set up position.

The staves adjacent their ends on the outside of the heads are provided with openings through which the bolts K pass, and which are for the purpose of more firmly clamping the staves around the heads, and absolutely preventing the barrel from being knocked down until the bolts are removed. In order to allow the bolts to be readily removed and inserted, without removing the nuts therefrom, I have designed a specially arranged bolt which consists of a headless bolt K having adjacent one end an opening *k* through which a cotter-pin L is adapted to be passed, while the opposite end is provided with the usual screw-threaded portion having a nut K′ thereon. To insert the bolt after the barrel is set up, remove the cotter-pin and pass the same through the openings in the staves and replace the cotter-pin on the outside of the stave, it being understood that the nut on the opposite end of the bolt is also on the outside of the stave. By turning the nut a short distance on the bolt it will be understood that the staves are firmly clamped around the heads. To release the bolts, it is understood that the nuts only have to be turned sufficiently far to allow the cotter-pin to be removed and do not have to be entirely removed from the bolts.

To knock down the barrel, the operation is as follows:—The nuts K′ are turned to allow the cotter-pin to be removed, when the bolts are withdrawn through the openings in the staves. The lever H is released from the catch J and swung upward, and the hook carried thereby is released from the lock plate G and the heads of the barrel can be removed, and the staves rolled. In rolling the staves, the chains are necessarily on the inside.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a collapsible barrel, the combination with a body portion formed of staves, of heads supported thereby, chains having one end pivotally connected to one of the staves, and passing around the body portion, the links of said chain being of a length equal to the width of the stave, means for securing each link of the chain to a stave to have a transverse movement thereon, plates secured to the opposite end of the chain during the manufacture thereof and said plate having a series of horizontal openings therein, a lever mounted on the pivot securing the ends of each chain, and a link pivoted to the lever and having horizontal portions adapted to enter one of the openings in its respective plates and tighten the chain around the body portion, and means for locking the free end of the lever to the body of the barrel.

2. In a collapsible barrel, the combination with a body portion formed of staves, of heads supported thereby, chains having one end pivotally connected to one of the staves and passing around the body portion, the links of said chains being of a length equal to the width of the stave, means for pivotally connecting each link of the chain to a stave to have a transverse movement thereon, plates secured to the opposite ends of the chain and having a series of horizontal openings therein, a lever mounted on the pivots securing the ends of the chains to the staves, a link pivoted to the lever and having a horizontal portion adapted to enter one of the openings in its respective plate and tighten the chain around the body portion, and a bolt passing transversely across the barrel on the outside of the heads, and firmly clamping the staves around the heads.

3. In a collapsible barrel, the combination with a body portion formed of flat staves having inwardly beveled vertical edges, of heads supported thereby, chains passing around the staves and adjustably secured thereto, plates secured to the opposite end of the chains and having a series of openings therein, and a lever pivotally carried by the staves and adapted to enter one of the openings in the plates and tighten the chain around the body portion.

4. In a collapsible barrel, the combination with a body portion formed of staves, of heads supported thereby, chains having one end pivotally connected to one of the staves and passing around the body portion, and arranged with a link opposite each stave and connected therewith to have a transverse movement; plates connected to the ends of the chains opposite the end stave, and having a series of horizontal openings; levers mounted upon the securing means of the links of the opposite end of the chain, links pivoted to the levers and having inwardly turned lateral ends adapted to enter the openings in the respective plate and tighten the chain around the body portion, U shaped spring members carried by the stave adjacent the levers and into which the levers are adapted to spring, and held in their locked position, and having transverse bolts passing through the staves on the outside of the heads.

In testimony whereof I affix my signature in presence of two witnesses.

DAVIS B. JONES.

Witnesses:
R. R. GAY,
J. M. GAY.