

J. G. JOHNSON.
 COLLAPSIBLE BARREL.
 APPLICATION FILED MAY 11, 1910.

985,600.

Patented Feb. 28, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

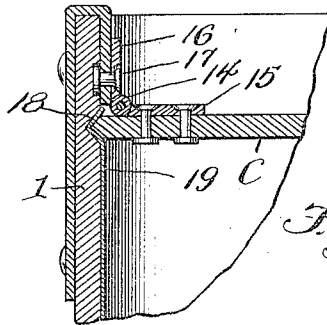
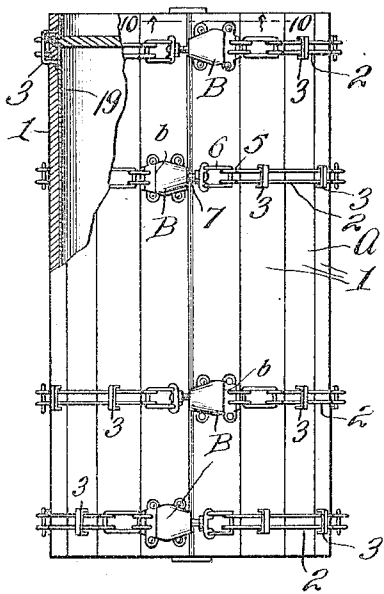


Fig. 5.

Fig. 6.

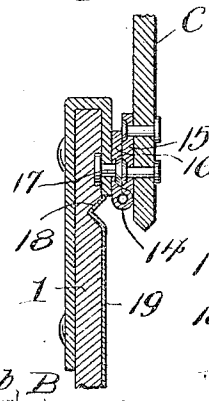


Fig. 7.

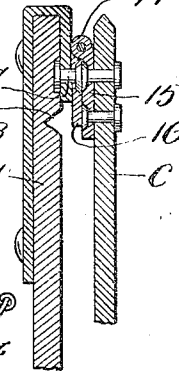


Fig. 4.

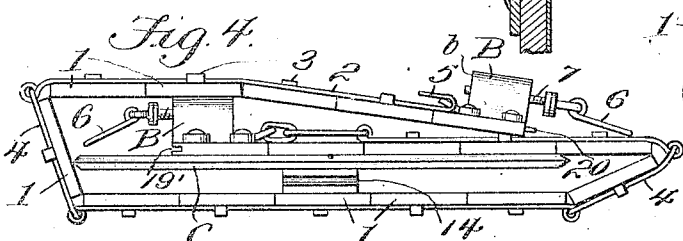


Fig. 8.

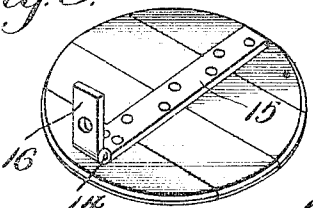


Fig. 9.

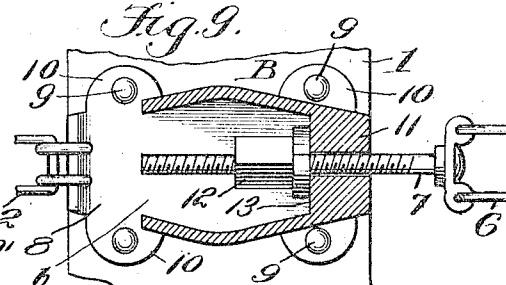
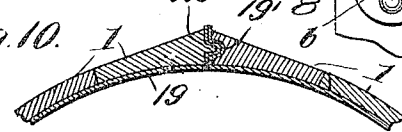


Fig. 10.



Inventor

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2 SHEETS-SHEET 2.

Fig. 2.

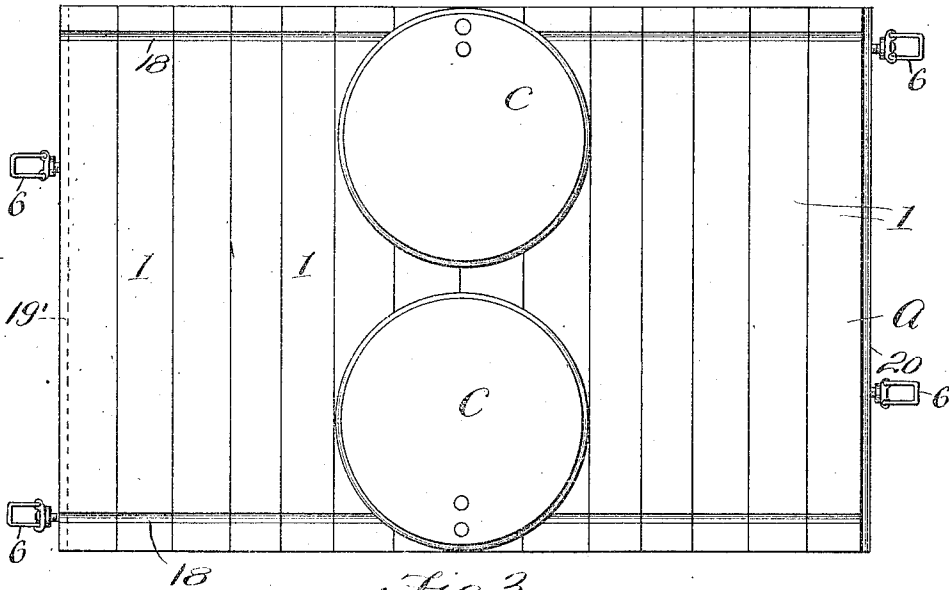
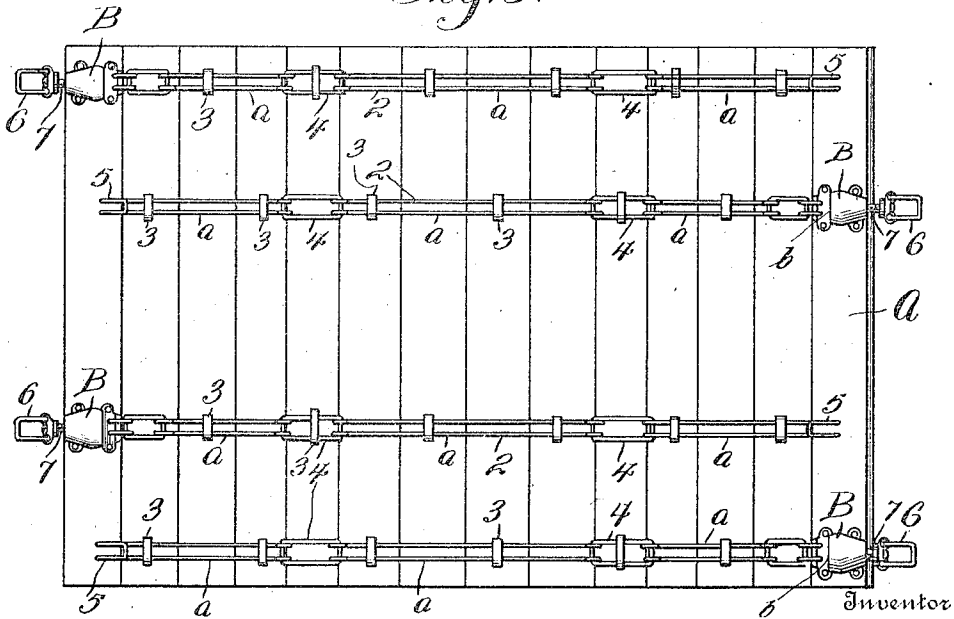


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES G. JOHNSON, OF CHICAGO, ILLINOIS.

COLLAPSIBLE BARREL.

985,600.

Specification of Letters Patent.

Patented Feb. 28, 1911.

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To all whom it may concern:

Be it known that I, JAMES G. JOHNSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Collapsible Barrels, of which the following is a specification.

This invention relates to shipping receptacles in the form of knock-down barrels.

The invention has for one of its objects to improve and simplify the construction of receptacles of this character so as to be comparatively inexpensive to manufacture, readily set up or knocked down, and of durable and substantial design.

Another object of the invention is the provision of a knock-down crate of that type including a plurality of connected slats and having heads which can be folded flat against the slats when the barrel is knocked down.

Another object of the invention is the provision of an improved means for connecting the slats or staves together to form a slatted webbing that constitutes the sides of a barrel, in connection with means for joining ends of the webbing together.

With these objects in view, and others as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claim appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention:— Figure 1 is a front elevation of the barrel partly broken away. Fig. 2 is a plan view showing the barrel knocked down but unfolded. Fig. 3 is a view of the opposite side of the barrel in knock-down position. Fig. 4 is an end view of the barrel knocked down and folded. Fig. 5 is a detail sectional view showing the manner of connecting the head with the body of the barrel. Fig. 6 is a similar view showing the head thrown open. Fig. 7 is a view showing the head folded. Fig. 8 is a perspective view of a modified form of head. Fig. 9 is an elevation of one of the fastenings for securing one of the ends of a hoop together. Fig. 10 is a detail section on line 10—10 of Fig. 1.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates

the body of a barrel, which, in the present instance, is in the form of a woven structure or webbing consisting of staves 1 and band or hoops 2, which serve to connect the staves together, the staves having staples 3 through which the bands extend. The bands, in the present instance, are composed of three sections *a* horizontally connected together by rings 4, the rings between corresponding sections of the bands being arranged in a common line so that the end sections of the body can fold back over the middle section when the barrel is knocked down. Each band or hoop is provided at one end with a hook 5 with which engages a loop or ring 6 at the opposite end, and this ring is fastened to a screw 7 suitably secured to one of the end slats or staves of a draft or tying device B. As shown in Fig. 3, the alternate bands are reversely arranged so that there will be two hooks at one end of the webbing and two fastening devices B at each end to coöperate with the hook at the opposite end of the web.

Each fastening device B comprises a base 8, which may be a casting or hollow structure secured in place by rivets 9 or the like passing through lugs and the slat under the base. On one end of the base or body 8 is an opening 11 in which the tightening screw engages and on this screw is a nut 12 which bears against a flat face 13 on the body 8. This nut can be turned by a suitable wrench inserted in the opening *b* of the base for drawing up the staves in setting up the barrel or loosening the staves when the barrel is to be knocked down.

The heads C are permanently secured to the webbing so that they will also be in readiness for use. Each head is provided with a hinge 14 which has one leaf 15 secured to the outer face of the head and the other leaf is secured preferably to the middle stave of the barrel body at the end thereof. The leaf 16 being secured by a single rivet or other fastening 17 that serves as a pivot on which the head can quickly turn. The edge of the head set in a groove 18 extending the full length of the webbing that forms the body of the barrel and when the barrel is tightened no fastenings are required to hold the head in place. When the body of the barrel is opened out, the heads C can be turned on their hinges from the position shown in Fig. 5 to that shown in Fig. 6, and it will thus be possible to turn the heads on

the pivots 17 inwardly over the central section of the webbing as shown in Fig. 2. After this is done, the end of the webbing is folded inwardly, one over the heads and the other over the folded end so that the barrel will be completely knocked down as shown in Fig. 4. When the heads are made up as shown in Fig. 8, one leaf of the hinge 14 will be made into a strap 15 to secure together the sections of which the head is made.

In order to render the barrel completely dust or moisture proof, a water-proof lining 19 may be employed. This lining will be of the width corresponding to the length of the staves so as to cover the grooves 18 in which the heads set and hence when the barrel is set up, the lining will be pinched into the seats or grooves 18 and thus form a tight joint between the heads and body of the barrel. The ends of the strip of the water-proof lining are lapped over the edges of the end slats of the webbing so that when these slats are brought together, the ends of the lining will be clamped between them and if desired, one end slat may have a groove 19' into which will engage a tongue 20 on the other end slat as clearly shown in Fig. 10.

From the foregoing description taken in connection with the accompanying drawings,

the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention relates, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the claim.

What I claim as new and desire to secure by Letters Patent is:—

A knock down barrel comprising a collapsible body having grooves, heads adapted to interlock in the grooves when the barrel is set up, a hinge rigidly secured to each head on the outer surface and having a leaf thereof pivoted to the body between one edge of the latter and the adjacent groove, the pivotal axis of the hinges being at right angles to the pintles thereof to permit the heads to fold flat against the body when the barrel is collapsed.

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

JAMES G. JOHNSON.

Witnesses:

WM. E. LARNED,
JAMES T. GUTHRIE.