(No Model.)

J. J. LÜCK.

BARREL.

No. 256,491 Patented Apr. 18, 1882.

Fig. 1.

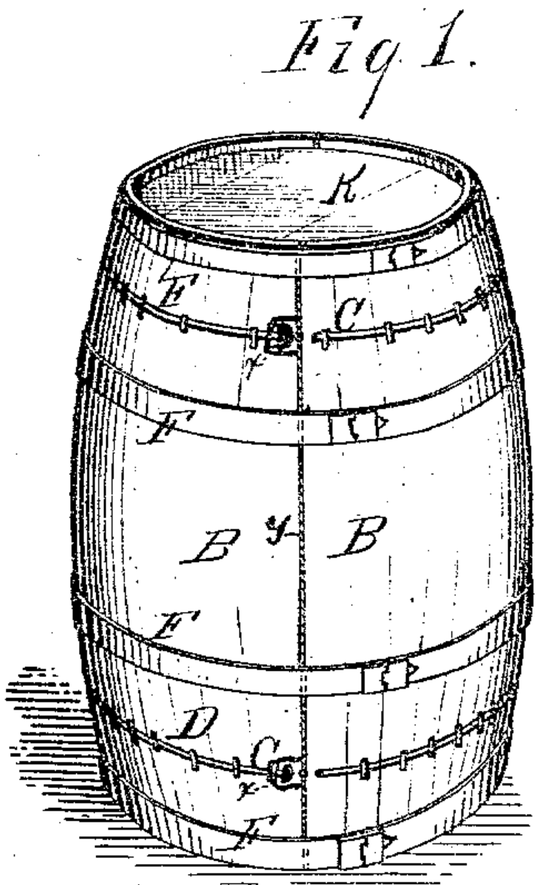


Fig. 2.

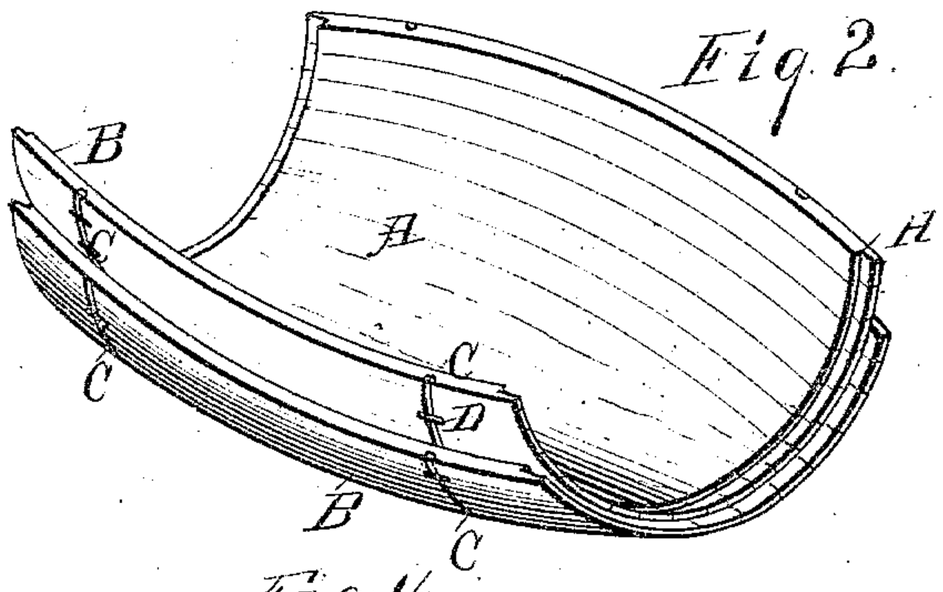


Fig. 4.

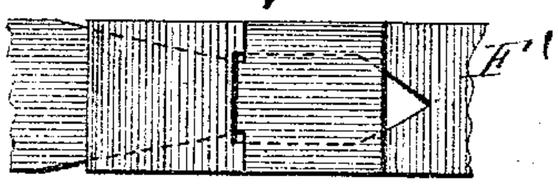


Fig. 3.

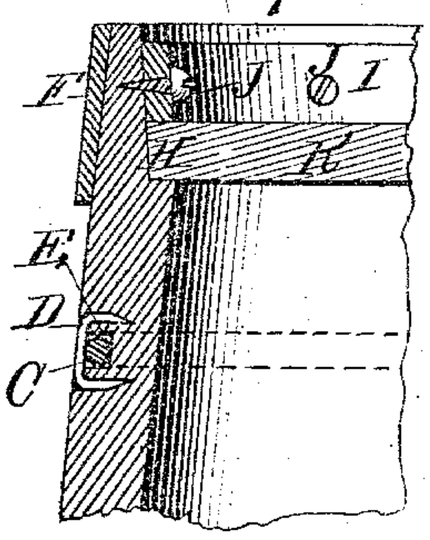


Fig. 5.

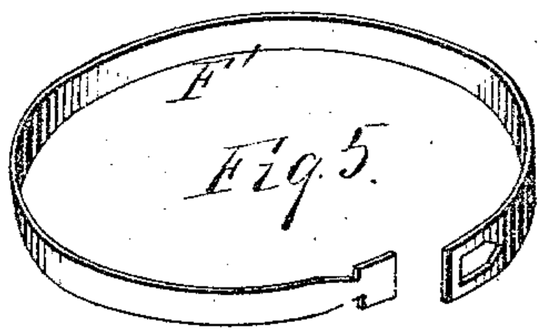
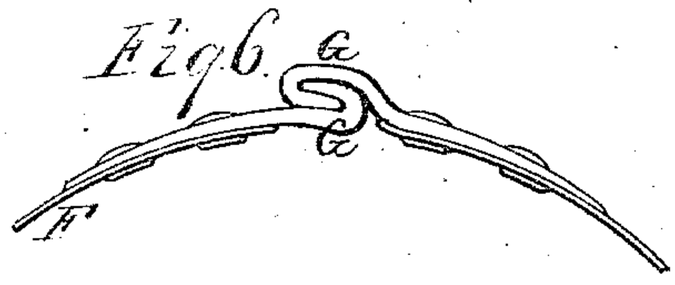


Fig. 6.



Witnesses:
E. G. Asmus
Henry Poth

Inventor:
John J. Lück
By Jas. P. Ennis
Attorney.

UNITED STATES PATENT OFFICE.

JOHN J. LÜCK, OF RIPON, WISCONSIN.

BARREL.

SPECIFICATION forming part of Letters Patent No. 256,491, dated April 18, 1882.

Application filed August 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. LÜCK, a citizen of the United States, residing at Ripon, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Barrels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a barrel which may be taken down and packed in a small space for shipping; and it relates to improvements upon my previously-invented barrel, for which Letters Patent No. 242,948 were issued to me June 14, 1881. In my said previous invention the staves were secured in contact, when taken down for shipping, with a rod or wire secured to their inner surfaces, and the section of staves so held in contact were locked together when set up with hooks and wedges arranged upon the interior of the barrel. The device by which such series of staves were held in contact permitted them, when taken down, to lie flat one upon another. By my improvement the connecting wires, rods, or bands by which the staves are held in contact are secured in grooves upon the outside of the barrel in such a manner that said series of staves are retained in the same relative position to each other after as before being taken down, so that when the barrel is divided at its center the two series of staves remaining in contact form semicircular sections which lie one within the other, and thus occupy but small space.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of the barrel as it appears set up for use. Fig. 2 represents the two series of staves as they appear when taken down and packed for shipping. Fig. 3 represents a longitudinal section of a barrel in detail. Figs. 4 and 5 represent two devices for uniting the hoops of the barrel. Fig. 6 represents another form of coupling for the hoops.

Like parts are represented by the same reference-letters throughout the several views.

The barrel is divided into two or more sections, B B, (two sections being preferred,) and all the staves in each section are permanently held in contact in the same relative position as when set up in a barrel, by the retaining-bands C C, which bands surround the respective sections upon their outsides, and are secured to each stave in the respective sections by staples D, which are looped over the bands and driven into the staves with one of the respective arms of the staples upon the respective sides of the bands, as shown in Fig. 3. The bands C may be formed of wire, of suitable weight, varying according to the character of the staves employed. To permit the hoops of the barrel to be driven past the bands C, a groove, E, is formed in the surface of the staves for the reception of said bands, whereby said bands are sunk below the surface of the staves, out of contact with the hoops or other objects, and may, if desired, be entirely covered with the hoops and obscured from view. One end of the respective bands C is permanently secured to the outside stave of the sections, while the other end of said band is provided with a knob, *x*, which prevents it from being withdrawn from the staples, and thus prevents the staves from separating when the outside hoops are removed. The staples D are adapted to be moved lengthwise upon the bands C, thus permitting the staves to be drawn more closely together without kinking said bands.

F F F F are the hoops of the barrel, the respective ends of which are secured together by conversely-curved hooks G G.

If desired, the hooks G G may be dispensed with and the ends of the hoops locked together. Figs. 4 and 5 represent devices which may be substituted for said hooks. A head is formed on one end of the hoop by notching its sides, and an opening for the reception of such head is formed on the other end of the hoop. When inserting said head is turned edgewise. When it turns back it engages against the side of the opening and forms a lock.

H H are shoulders formed at the respective chines of the barrel, upon which the heads K are supported.

I are chine hoops by which the heads are securely retained in the barrel against the shoulder H.

J J are screws by which the chine-hoops are fastened in place against the heads.

It is obvious that by removing the chine-hoops the heads may be taken out and inserted without disturbing the outside hoop or separating or deranging the staves.

y is an elastic packing secured to the edges of the respective sections, by which a more perfect joint is formed.

Having thus described my invention, I do not confine myself to the peculiar manner of attaching the bands C to the staves or series of staves, as the groove E may be dispensed with and the band attached to the surface of the staves. Neither do I confine myself to the peculiar device for locking the end of the hoops F together, as they may be attached with rivets, which rivets may be permanently secured to one end of the hoops and temporarily locked to the other end in a slotted eyelet like that commonly employed in a corset or belt clasp. They may also be locked by the device shown at F′.

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

1. In that class of barrels which are adapted to be taken apart for shipping, the combination, in a single series, of two or more staves, retaining-bands secured to the exterior of said series, and a series of staples looped over said retaining-bands and permanently secured to the exterior surface of the staves, all adapted to retain said staves in their proper relative position to each other, substantially as and for the purpose set forth.

2. The combination of two or more series of staves, the staves of each series being connected together by separate retaining-bands attached with staples to the exterior surface of said series, elastic packing *y* between the edges of the respective sections, heads K and hoops F, and end fastenings for the retaining-bands, substantially as and for the purpose specified.

3. In barrels the staves of which are connected together in two or more sections, the retaining-bands C C, each provided with knobs *x* at one end and means for securing the other end, grooves E E, formed in the exterior surface of the stave for the reception of the retaining-bands C, and staples D, for retaining said band in said groove, substantially as and for the purpose set forth.

4. In barrels formed in detachable sections, the combination of sections B B, provided with shoulders H, said sections being formed of staves retained in contact by external retaining-bands secured in grooves by staples and end fastenings, heads K, chine-hoops I I, screw J, and detachable hoops F, all substantially as and for the purpose set forth.

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

JOHN J. LÜCK.

Witnesses:
HERMANN FISCHER,
I. M. DAKIN.