

D. E. BROWN & L. L. KAST,

KNOCKDOWN BARREL.

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962,938.

Patented June 28, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

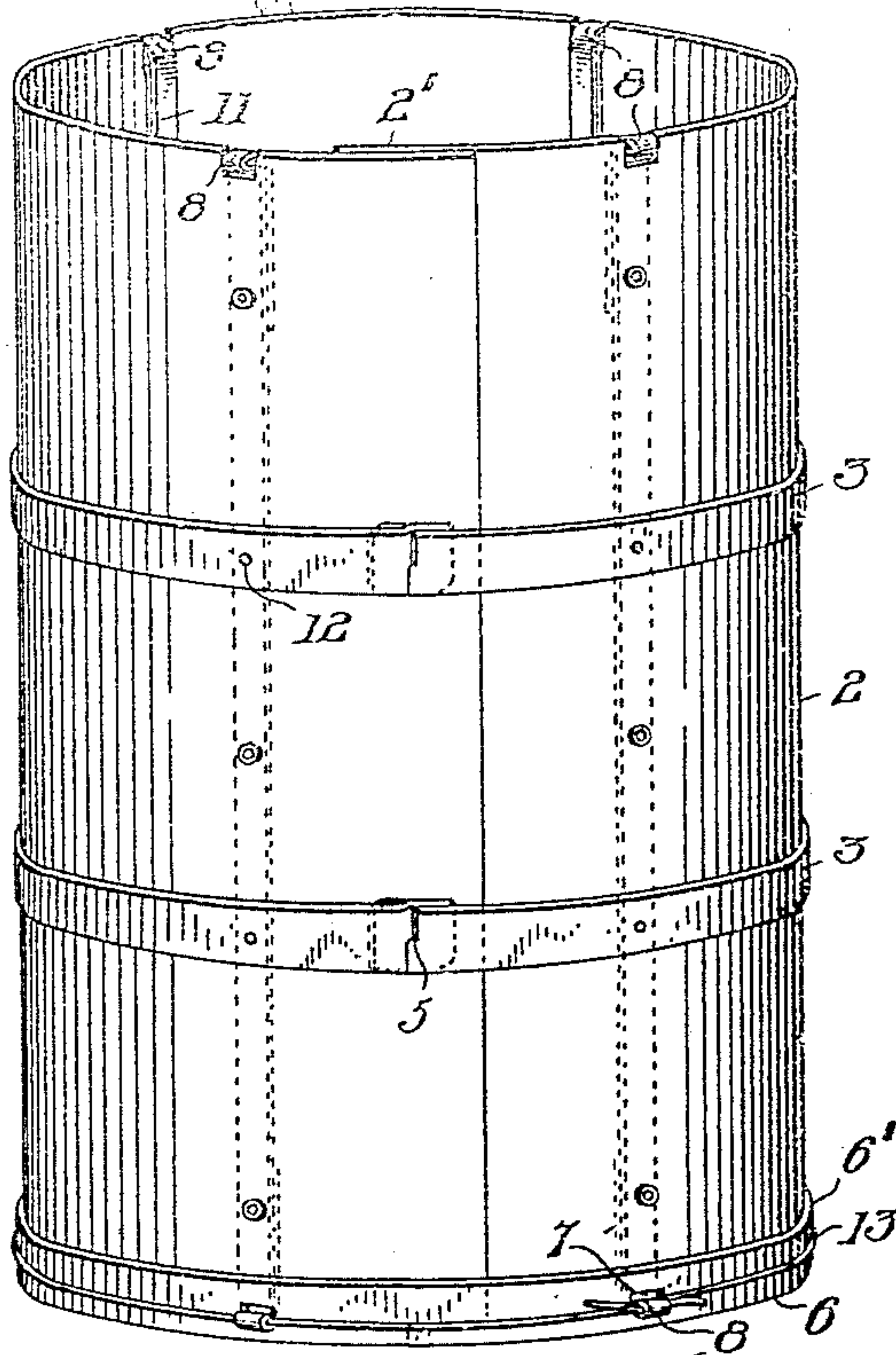
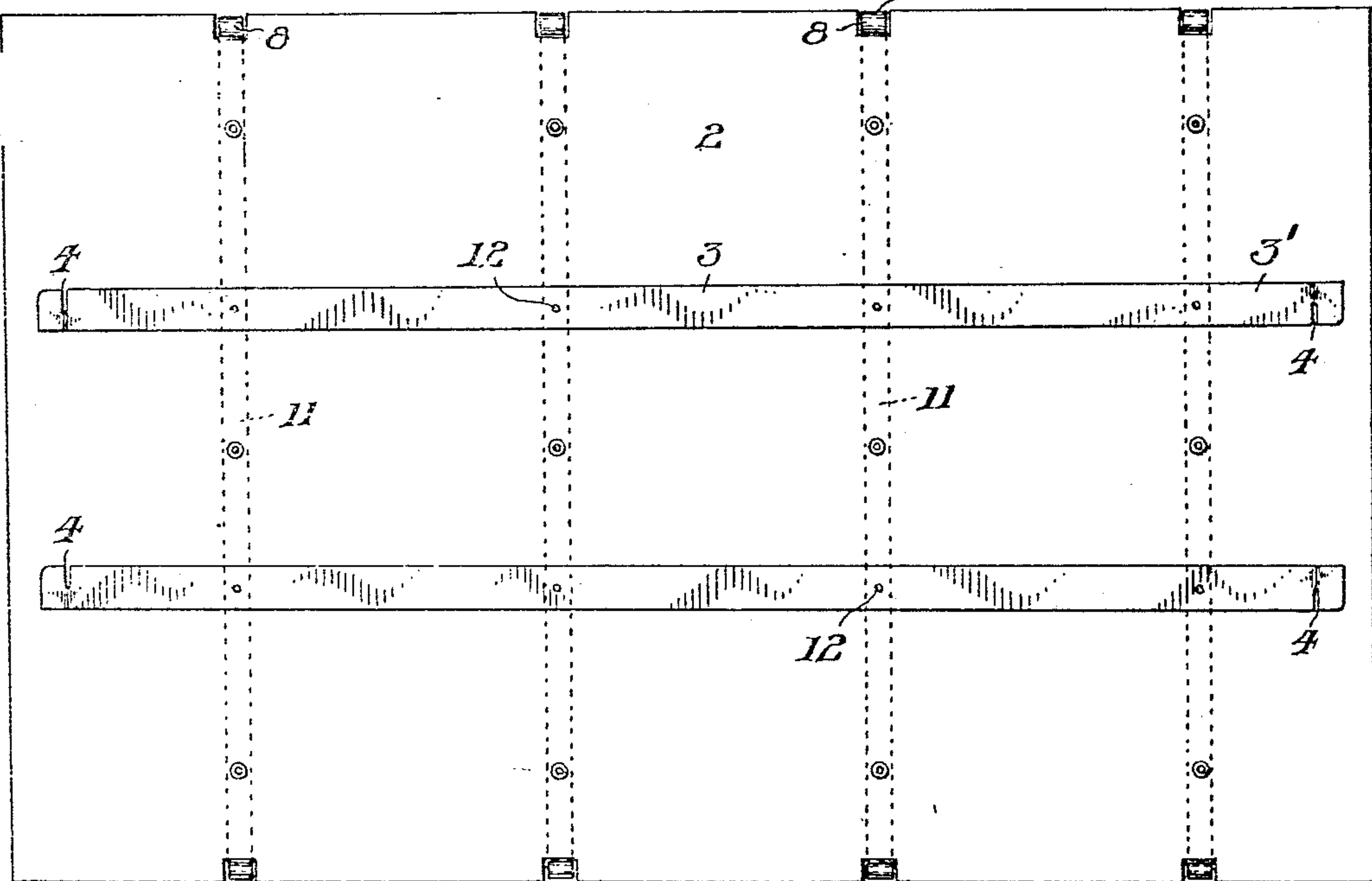


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

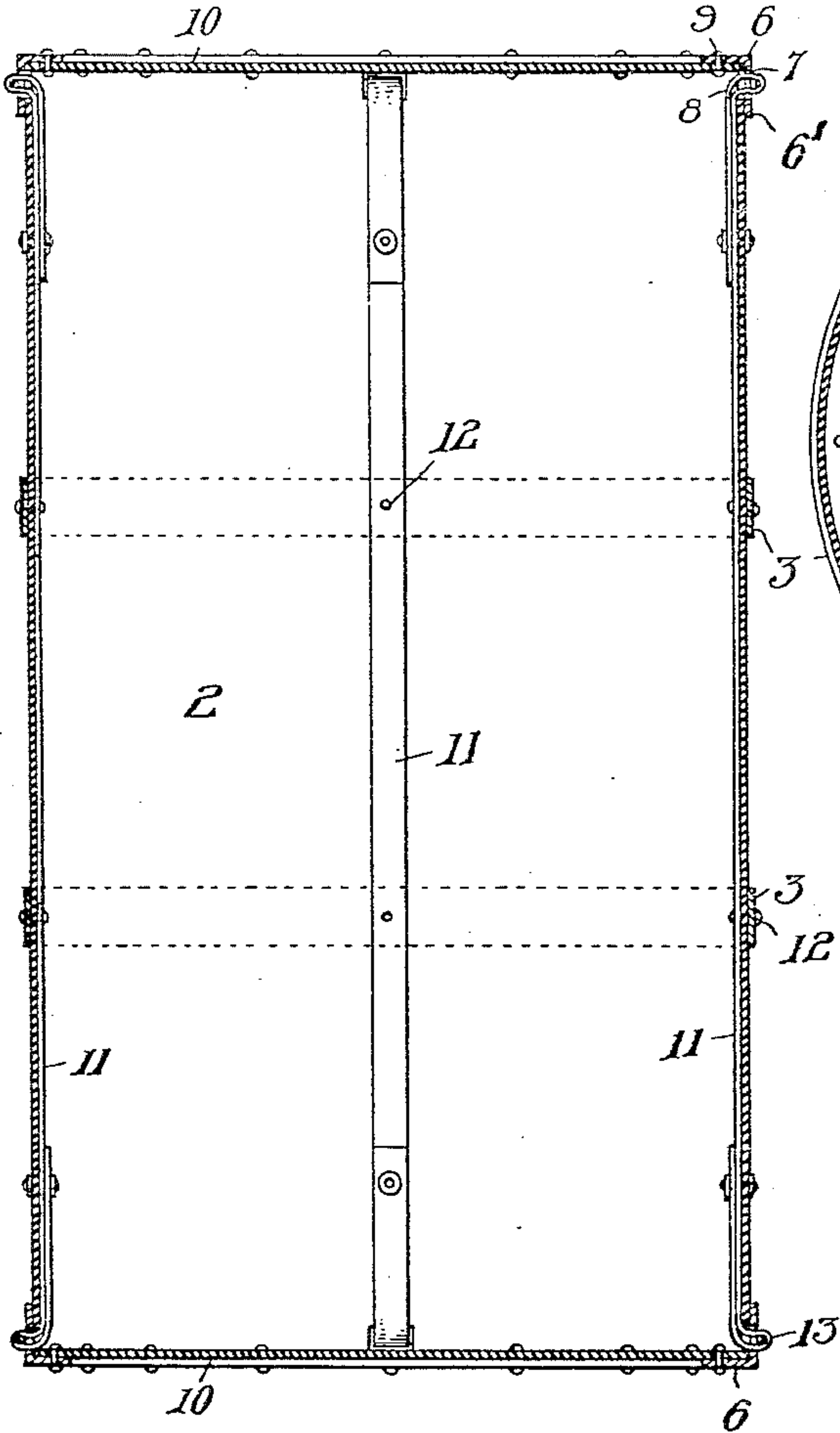


Fig. 4.

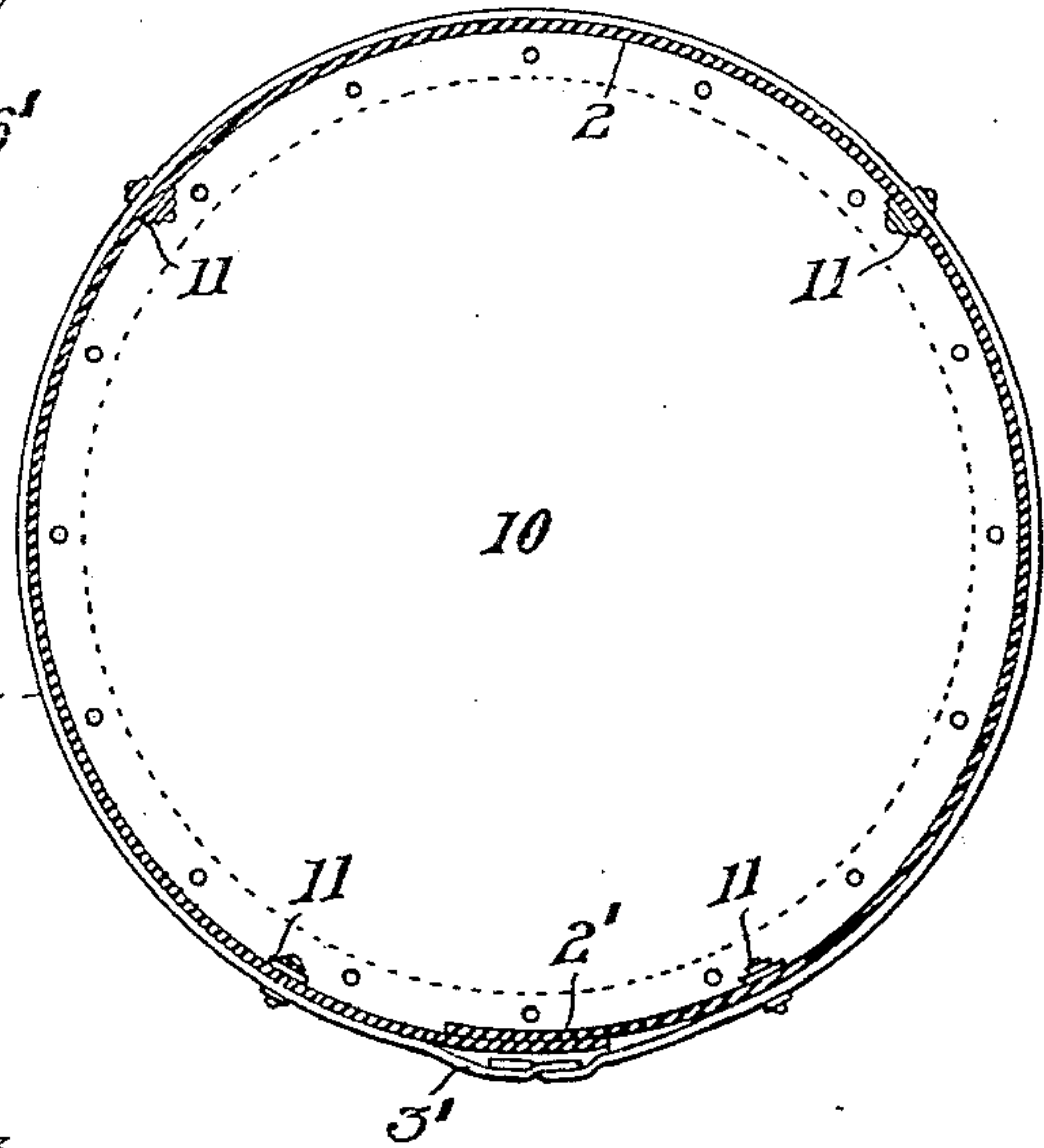


Fig. 6.

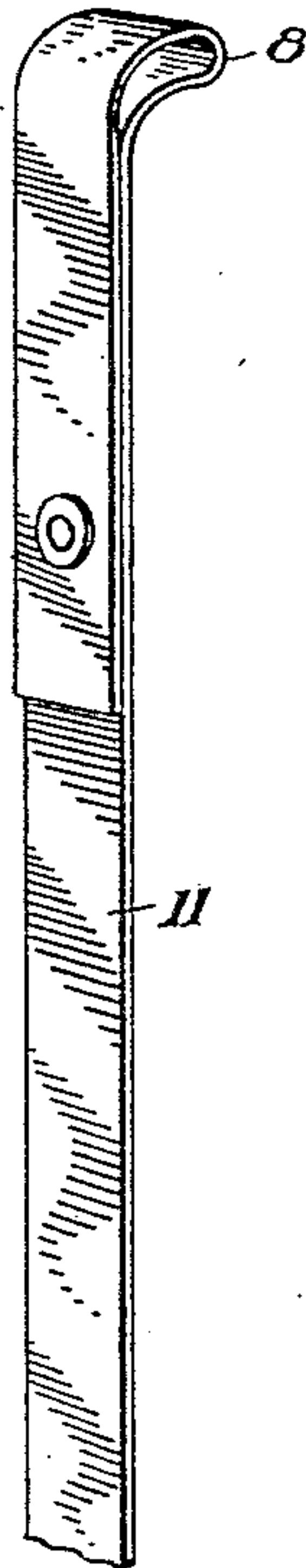


Fig. 5.

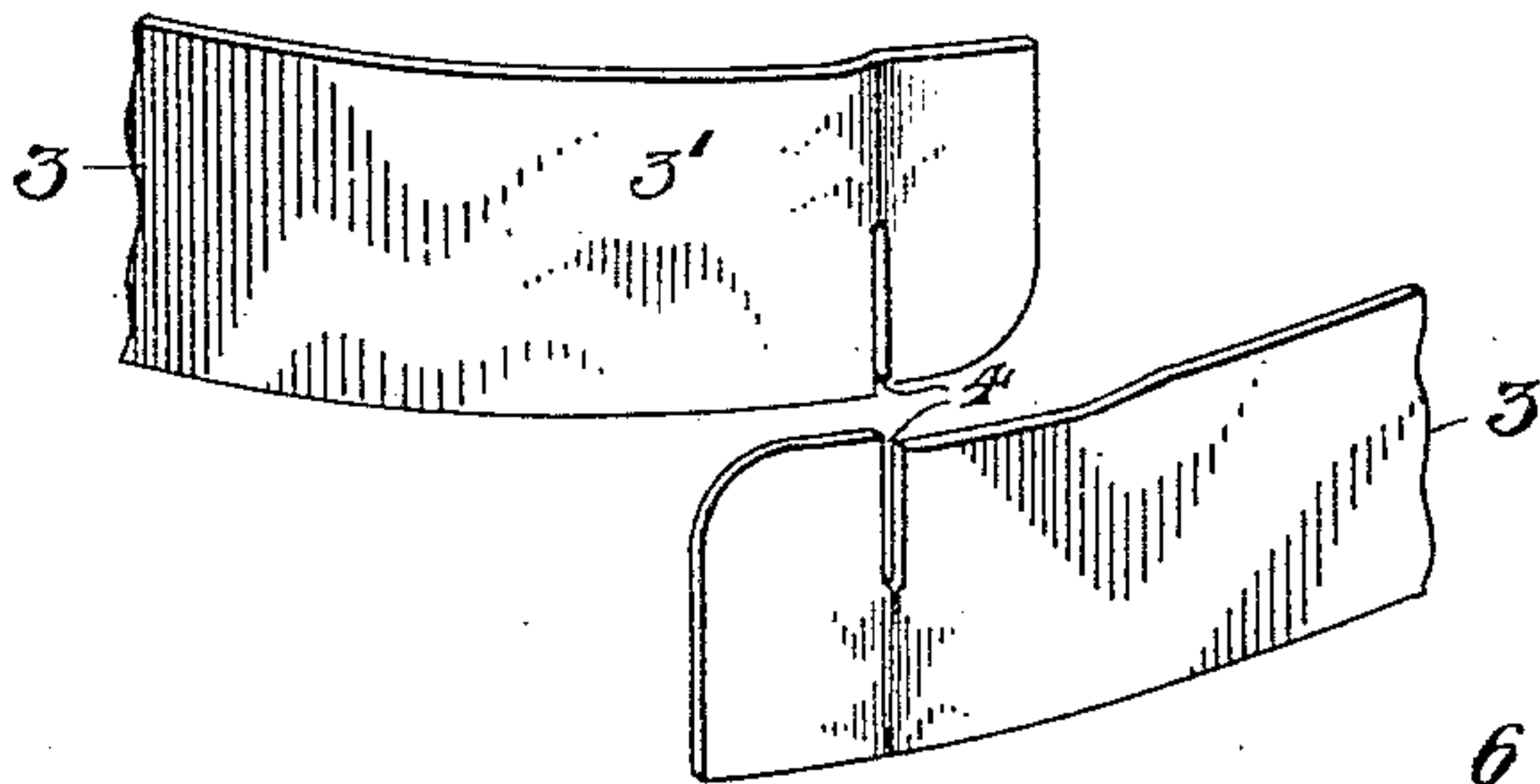
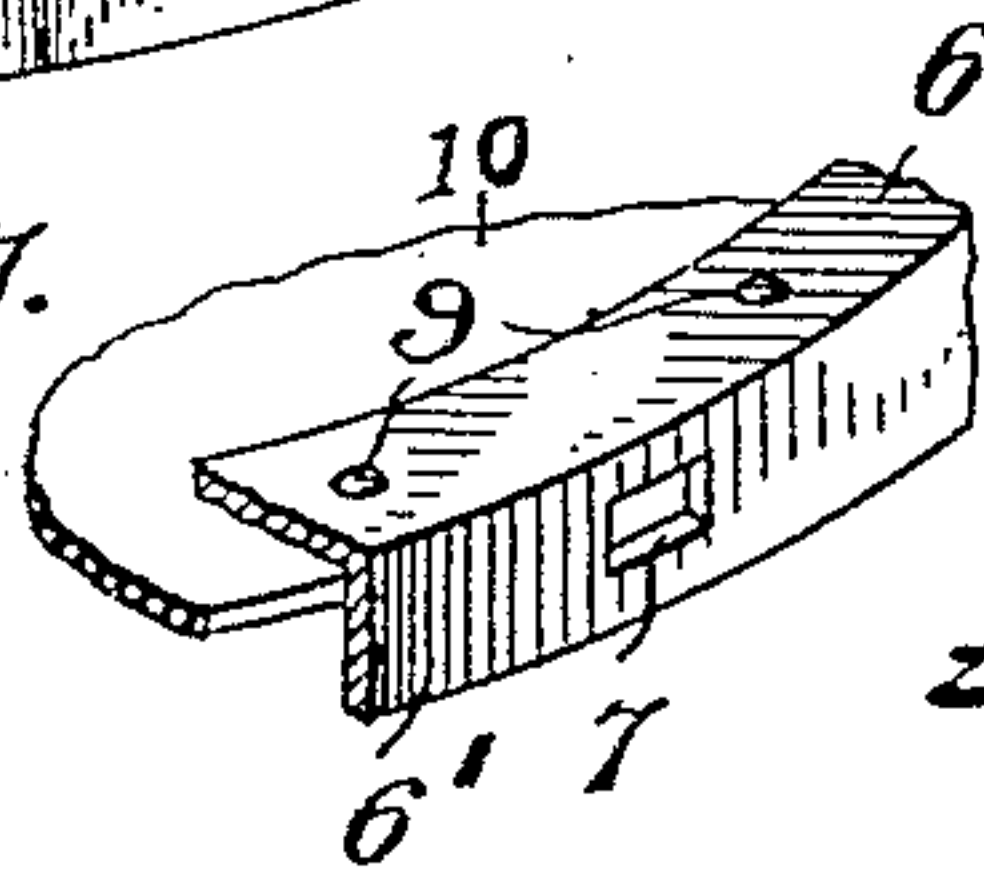


Fig. 7.



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UNITED STATES PATENT OFFICE.

DAVID E. BROWN AND LEONARD L. KAST, OF CRESSON, PENNSYLVANIA.

KNOCKDOWN BARREL.

962,938.

Specification of Letters Patent. Patented June 28, 1910.

Application filed April 5, 1909. Serial No. 487,874.

To all whom it may concern:

Be it known that we, DAVID E. BROWN and LEONARD L. KAST, residents of Cresson, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Knockdown Barrels, of which the following is a specification.

The object of this invention is to provide a shipping case of simple and durable construction, one possessing sufficient strength for any usual or ordinary use, and which is adapted to be disassembled into knockdown form so that a large number may be packed with economy of space when being returned to a shipper, or for transporting wherever required.

In the preferred embodiment the improved case is of barrel form having its body constructed of a single sheet of flexible fiber adapted to be turned from opened-out to case or barrel form with means for strengthening the body both longitudinally and circumferentially, and with improved means for detachably holding the body in barrel form.

The invention includes heads of improved construction with means for securing the same to the body.

In the accompanying drawings, Figure 1 is a view in perspective of the improved case, one of the heads being removed. Fig. 2 shows the body fully flattened out. Fig. 3 is a vertical longitudinal section of the package, and Fig. 4 a cross-section. Fig. 5 is a detail view of the detachable joint between the ends of one of the hoop bands. Fig. 6 is a detail view of a portion of one of the longitudinal strengthening ribs. Fig. 7 is a view of a portion of one of the heads.

Referring to the drawings, the body of the case consists of flexible material 2, sheet fiber being preferably employed, being adapted to be turned up or rolled from the opened-out or knockdown form to the cylindrical or barrel form of Fig. 1, with the edges thereof overlapping as indicated at 2'. This form is preferably maintained by the use of hoop-forming bands 3 with the extremities 3' slotted at 4, and overlapping and interlocking as indicated at 5. These band extremities may be connected and disconnected by slight longitudinal deflection of the overlapping portions of body 2, as will be understood.

The heads consist each of a ring or band 6 of sheet metal, angular in cross-section,

with one branch 6' thereof embracing the extremity of the body and formed with slots or openings 7 to pass loops 8, the latter secured to the inner surface of the body. The other branch of ring 6 has riveted thereto at 9 the material 10 which forms the body of the head, sheet fiber or other suitable material being used.

To strengthen body 2 longitudinally, particularly when formed of fiber or other material making reinforcement desirable, metallic rib-forming bands 11 are secured to the inner surface thereof, and in the adaptation here shown loops 8 are formed at the extremities of these bands. By riveting together bands 3 and 11 where they cross, as indicated at 12, a very substantial skeleton is formed, bands 11 being on the interior and bands 3 on the exterior, with body 2 confined therebetween. Bands 3 and 11 being secured to the body open out or spread there-with when in knockdown form, as shown in Fig. 2, and it will be noted that the extremities of all of these bands are within the outline of body 2, so that there are no projecting parts exposed to injury.

Various means may be employed for holding the heads interlocked with loops 8, that here shown being a hoop-like wire 13 extending around the package through all the loops. The body being of flexible material it may be readily deflected along with loop-carrying ribs 11 for entering the loops in slots 7 and for disengaging the same when one or both heads are to be removed. Or the ribs alone may be deflected for this purpose.

When in knockdown condition the body will take such opened-out form as the construction will permit. With material 2 and bands 3 riveted together, as in the present adaptation, the body will not fully flatten out but the open curved form thereof will permit of nesting so that the bodies may be assembled in compact bundles for shipping or storing as required. It will be understood however that the invention is not thus restricted, the term "opened-out" being used to designate the knockdown condition of the body without regard to the particular form or shape the body assumes when in that condition.

The improved knockdown case is of simple and inexpensive construction and possesses strength ample to resist all ordinary strains to which shipping cases are subjected. It

is admirably adapted for packing glassware and other breakable goods, also fruits and vegetables, sugar, flour, etc.

We claim:—

5 1. A knockdown case comprising a body portion formed of a sheet of flexible material adapted to be turned from blank to case form and vice-versa with the longitudinal edges of the body overlapping when
10 turned to case form, hoop bands secured to the body with their ends extending toward said edges and with said ends overlapping when the body is in case form, said overlapping ends being reversely slotted and
15 adapted to interlock by deflecting the body longitudinally of its overlapping portions.

2. A knockdown barrel comprising a body portion formed of a sheet of flexible material having separable meeting edges and
20 adapted to be turned from opened-out to barrel form and vice versa, strengthening ribs secured to the sheet and extending longitudinally thereof with their extremities constructed to secure the barrel heads, and
25 heads formed to receive the rib extremities.

3. A knockdown barrel comprising a body

portion formed of a sheet of flexible material adapted to be turned from opened-out to barrel form and vice versa, strengthening ribs secured to the sheet and extending longi- 30 tudinally thereof with head-securing loops on the extremities of the ribs, and a head constructed to receive the loops.

4. A knockdown barrel comprising a body portion formed of a sheet of flexible ma- 35 terial having separable meeting edges and adapted to be turned from opened-out to barrel form and vice versa, means holding the body in barrel form, ribs secured to the interior of the body with outwardly-project- 40 ing head-securing devices on the extremities of the ribs, and a head having a body-embracing flange formed to receive the securing devices.

In testimony whereof we affix our signa- 45 tures in presence of two witnesses.

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Witnesses:

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