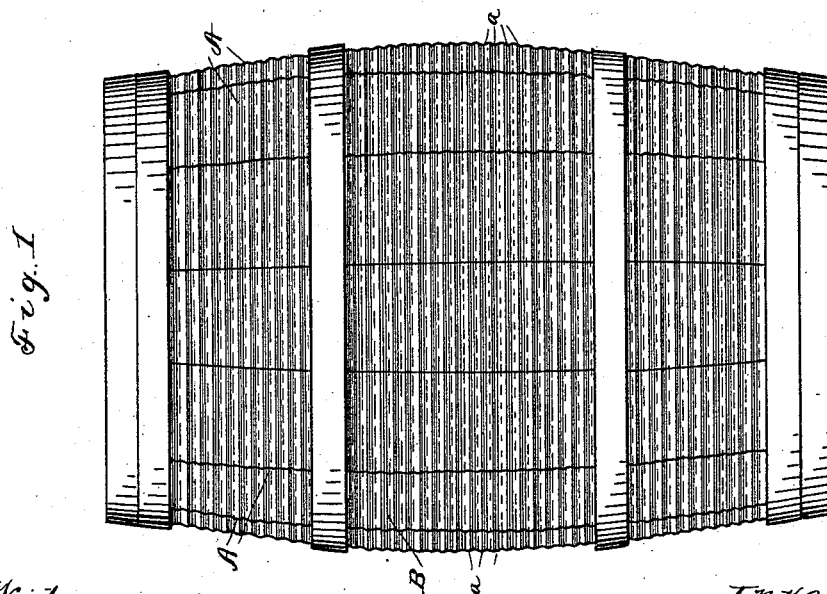
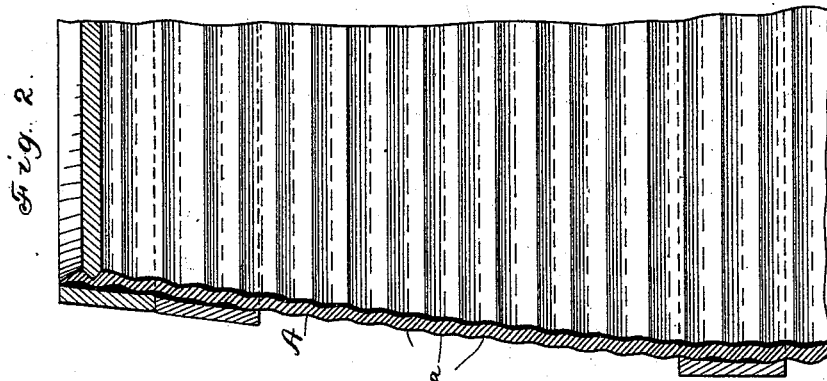


(No Model.)

J. E. TINKER & G. T. BENJAMIN.
BARREL.

No. 456,099.

Patented July 14, 1891.



Witnesses.
W. R. Edelen,
CH. W. ROSEN

Inventors.
Julien E. Tinker
George T. Benjamin
By Leggett & Leggett
Attys

UNITED STATES PATENT OFFICE.

JULIEN E. TINKER AND GEORGE T. BENJAMIN, OF CHATTANOOGA, TENNESSEE, ASSIGNORS OF ONE-THIRD TO EBER BLODGETT, OF CHARLESTON, SOUTH CAROLINA.

BARREL.

SPECIFICATION forming part of Letters Patent No. 456,099, dated July 14, 1891.

Application filed November 17, 1890. Serial No. 371,712. (No model.)

To all whom it may concern:

Be it known that we, JULIEN E. TINKER and GEORGE T. BENJAMIN, of Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful improvements in Barrels, Kegs, &c.; and we 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 pertains to make and use the same.

Our invention relates to improvements in barrels, kegs, &c., in which the staves are provided with slight corrugations running crosswise thereof, and these, when the staves are assembled, constitute slight grooves running circumferentially around the barrel, these grooves serving to retain the barrel-hoops in place.

In the accompanying drawings, Figure 1 is a side elevation of a barrel embodying my invention. Fig. 2 is an enlarged elevation in section, showing only a portion of the barrel.

A represents the staves of a barrel, and B the barrel-hoop. The staves as they are cut in a veneer-machine or other machine are slightly corrugated crosswise by means of a corrugated or fluted knife, these corrugations being shown at *a*. When the staves are assembled in the barrel, these corrugations of the individual staves form in the aggregate substantially grooves running circumferentially around the barrel. There are usually about three or four of such corrugations to the inch lengthwise of the staves. The hoops are supposed to be of wood, and in driving

the hoops stretch or expand quite a little, and after the driving the tendency of the hoop is to recoil or contract, whereby the inner surface of a hoop, and more especially at the edges, is drawn into these corrugations sufficiently to hold the hoop in place.

It is not necessary to chalk the hoops or the barrels before driving the hoops, and it is not necessary to nail or otherwise secure the hoops more than the grooving or corrugating of the staves aforesaid. Even in barrels in which lime or rice is shipped these hoops, by reason of the corrugations or grooves, retain their place, although these commodities tend to shrink the staves, so that with ordinary barrels the hoop would fall off in handling.

We do not wish to limit ourselves to the construction of barrels and kegs, as the invention is equally well adapted to tubs, pails, &c.

What we claim is—

As an article of manufacture, a barrel, keg, tub, or pail constructed with circumferential corrugations of slight and regular curvature, and hoops adapted to rest over and be drawn into several of these corrugations, substantially as set forth.

In testimony whereof we sign this specification, in the presence of two witnesses, this 14th day of July, 1890.

JULIEN E. TINKER.

GEORGE T. BENJAMIN.

Witnesses:

W. C. ROSENBERGER,

J. E. DOUBLEDAY.