

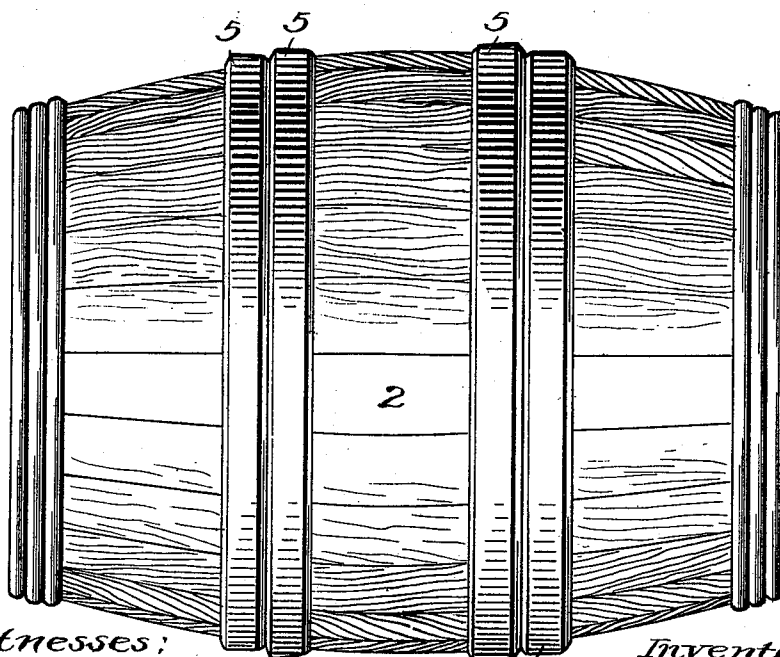
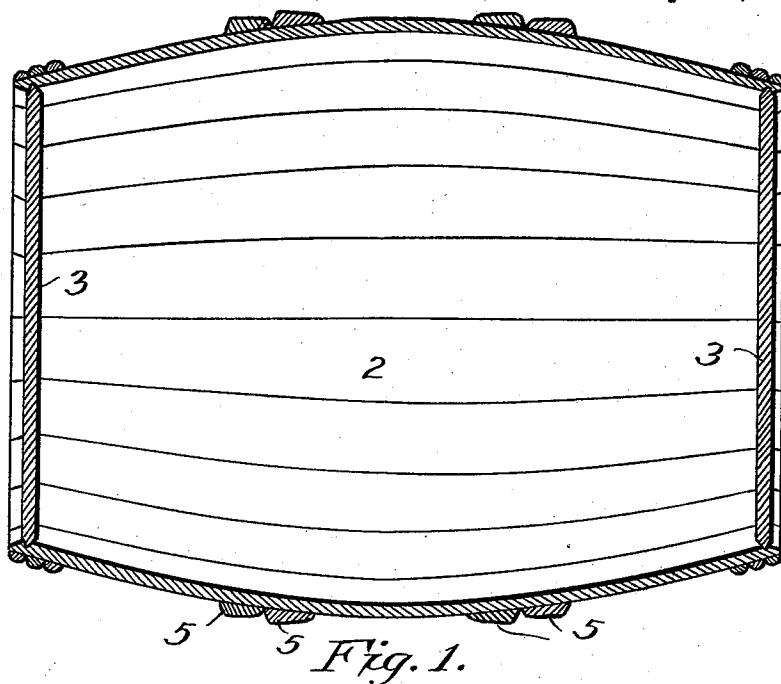
(No Model.)

2 Sheets—Sheet 1.

J. MADDOCK.
BARREL.

No. 539,185.

Patented May 14, 1895.



Witnesses:

Chas. E. Van Doren,

Chas. E. Van Doren

Fig. 2.

Inventor:

John Maddock.
By *Paul & Hawley*
his Attorneys.

(No Model.)

2 Sheets—Sheet 2.

J. MADDOCK.
BARREL.

No. 539,185.

Patented May 14, 1895.

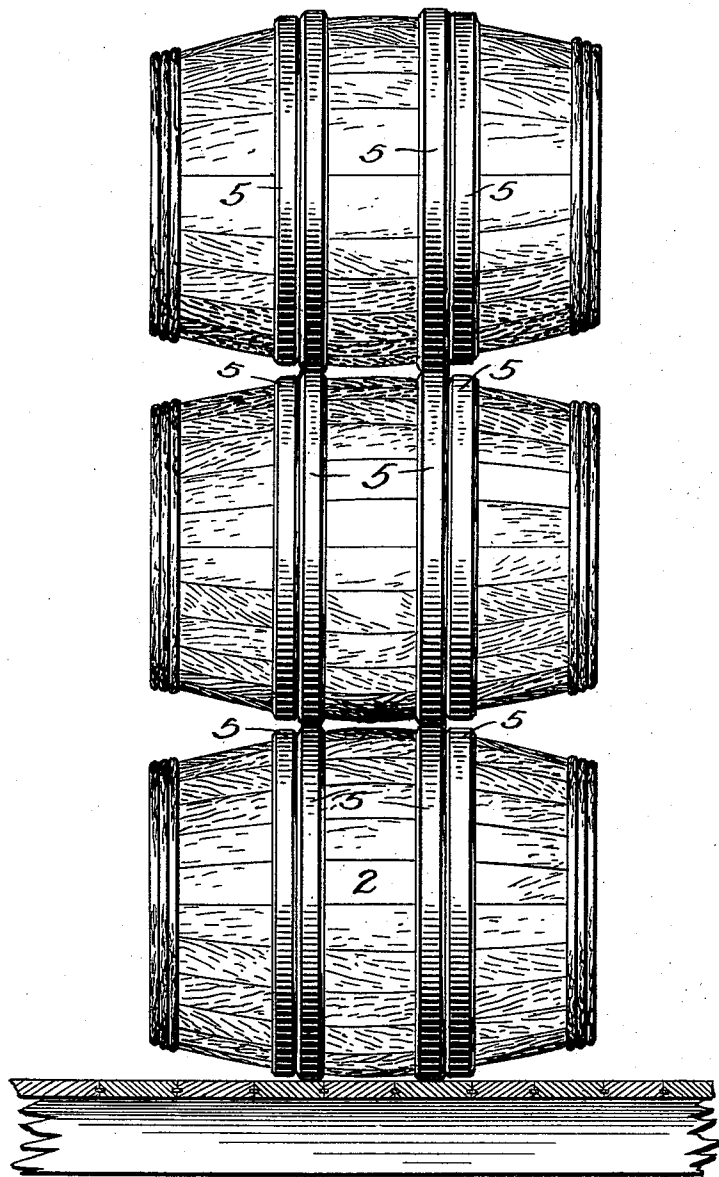


Fig. 3.

Witnesses:
Chas. E. Van Doren.
Richard Paul,

Inventor:
John Maddock.
By Paul Hawley
his Attorneys.

UNITED STATES PATENT OFFICE.

JOHN MADDOCK, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO THE PILLSBURY-WASHBURN FLOUR MILLS COMPANY, LIMITED, OF SAME PLACE.

BARREL.

SPECIFICATION forming part of Letters Patent No. 539,185, dated May 14, 1895.

Application filed May 17, 1894. Serial No. 511,618. (No model.)

To all whom it may concern:

Be it known that I, JOHN MADDOCK, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a certain new and useful Improvement in Barrels, of which the following is a specification.

This invention relates to improvements in barrels designed especially for use for packing and shipping flour and the objects which I have in view are to provide a barrel which will be firmer, tighter and which can be subjected to handling and rough usage with less liability to damage.

The invention consists generally in a barrel constructed of a series of staves and the usual heads and of bilge form provided upon each side of the bilge with one or more broad flat hoops whose outer surfaces are flush with or project beyond the surfaces of the staves at the bilge or center of the barrel and provided at its ends with a series of hoops of substantially half-round form in cross section.

In the accompanying drawings, forming a part of this specification, Figure 1 is a longitudinal section of a barrel constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation showing the space between the bilges of the barrels when piled one upon another.

In the drawings, 2 represents the body of the barrel, which is made up of a series of suitable staves and provided with the usual heads 3. At each side of the bilge or central portion of the barrel I provide one or more, preferably two, hoops 5. These hoops have flat outer surfaces and they are relatively broad and thick and their outer surfaces project a sufficient distance to be flush with or slightly beyond the central portion of the body, the object of this being to prevent the barrel from resting upon the bilge of the staves when the barrel is lying upon its side and also for preventing the weight of other barrels from coming upon the staves when a number of barrels are piled up one on top of another and to prevent the bilge of the staves from coming into contact with each other when the barrels are packed close together but standing upon end. In all of these positions the outer surfaces of the central hoop receive the weight or shock or pressure and distribute it around the body, thus preventing undue

weight or pressure from coming upon any one or more of the staves and thereby springing said staves injuring the barrel and permitting the flour to sift out.

At each end of the barrel I provide a series of hoops that are half-round in cross section. These hoops are preferably made of walnut poles split in two and having the bark upon their outer surface. The broad flat central hoops, before described, form rings or bearings for the barrels when they are being rolled and as the barrels will roll much more easily upon these hoops than they would if the barrel were provided with the ordinary hoops, in which the entire weight would be upon the bilge of the staves, it is necessary to make some provision for preventing the splitting off or chipping of the ends of the staves or of the hoops at the ends. This I accomplish by using the half round hoops at the ends of the barrels in combination with the broad flat hoops at each side of the center arranged as hereinbefore described. These half-round hoops at the ends are also of special advantage and especially combined with the broad flat hoops at the center when it is desired to turn the barrel from a position in which it rests upon its side to one in which it stands upon end. In doing this with my improved barrel the half-round hoop strikes upon the floor or other surface on which the barrel is resting and form the pivotal point upon which the barrel is turned while being raised into an upright position and the hoops being of half-round form or having curved outer surfaces in cross section form a suitable pivotal point for the turning of the barrel without danger of splitting the hoops. If the flat hoops are used at the ends of the barrel they will when the barrel is being turned to an upright position be liable to be split or chipped off, thus materially injuring the barrel.

The barrel thus constructed is found by actual experience to be tighter, more durable, less liable to breakage, or leakage, to be more easy to handle, and to be better in every particular than the ordinary barrel used for packing and shipping flour.

I claim as my invention—

1. The herein-described bilge-barrel, comprising a series of staves, heads in the opposite ends, one or more hoops encircling the

body at each side of the bilge and provided with flat outer surfaces projecting outward from the body flush with or beyond the central portion of the bilge, and a series of hoops arranged upon the body at each end thereof.

2. The combination in a bilge barrel of a series of curved staves, with the heads, hoops encircling the staves at the ends, and broad flat wooden hoops encircling the larger parts of the barrel on each side of the largest or bilge portion thereof, and the said flat wooden hoops being of such thickness that their outer surfaces project beyond the surface of the bilge portion of the barrel, substantially as and for the purpose specified.

3. A bilge-barrel comprising, a body formed of a series of staves, with heads arranged in each end thereof, one or more hoops encircling the body at each side of the bilge and having flat outer surfaces projecting beyond the bilge and a series of hoops arranged upon the body at each end and having round outer surfaces, for the purpose specified.

In testimony whereof I have hereunto set my hand this 28th day of April, A. D. 1894.

JOHN MADDOCK.

In presence of—

L. P. HUBBARD,
HENRY L. LITTLE.