

W. M. SHREVE.
BARREL.
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1,010,080.

Patented Nov. 28, 1911.

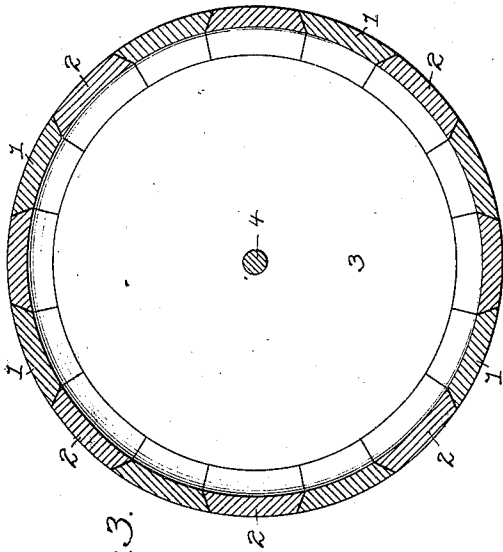


Fig. 3.

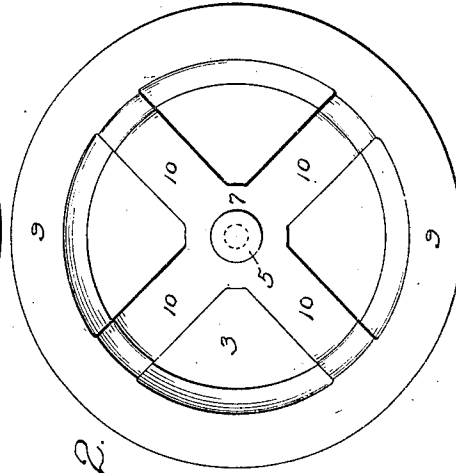


Fig. 2.

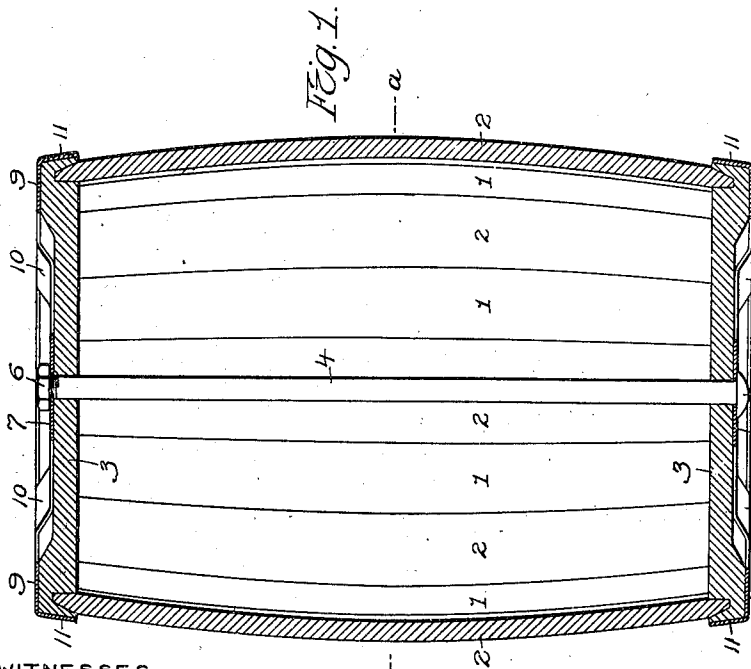


Fig. 1.

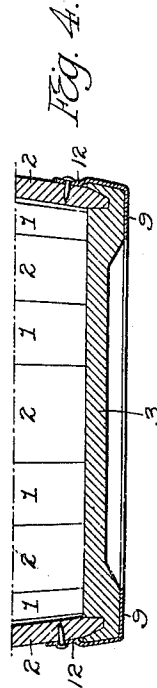


Fig. 4.

WITNESSES
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BARREL.

1,010,080.

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To all whom it may concern:

Be it known that I, WALTER M. SHREVE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Barrels, of which the following is a specification.

The object of my invention is to so construct a barrel that the staves may be held in close engagement one with another without the use of the usual hoops. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawing, in which—

Figure 1 is a longitudinal sectional view of a barrel constructed in accordance with my invention; Fig. 2 is an end view of the barrel; Fig. 3 is a section of the same on the line *a-a*, Fig. 1, and Fig. 4 is a sectional view of one end of the barrel illustrating a modification of one feature of my invention.

The body of the barrel is composed of staves comprising two groups, a stave of one group alternating with a stave of another group uniformly throughout the extent of the barrel, and the staves of one group having their edges reversely beveled in respect to the beveled edges of the staves of the other group, thus, as shown in Fig. 3, the staves of one group, represented at 1, have their edges flared or beveled so that the stave is widest at the outer face and narrowest at the inner face, while the staves of the other group, represented at 2, have their edges flared or beveled in the reverse direction, the outer face of the stave being narrowest and the inner face widest. If, therefore, the staves are held in their proper relation one to another the staves 1 are prevented from yielding inwardly by the staves 2 and the latter are prevented from yielding outwardly by the staves 1.

In order to retain the staves in their proper relation each stave is adapted at each end to the grooved inner face of a head 3, the opposite heads being confined to the staves in any appropriate manner.

In order to insure a tight joint between the head and the staves at each end of the barrel the ends of the staves are preferably beveled, as shown in Fig. 1, for adaptation to a correspondingly beveled groove in the head, thus insuring a wedge-like action of the walls of the groove upon the bevel sides of the staves which insures the pressing of

the contacting faces of the head and staves tightly together.

To maintain the heads in position the barrel may have a central longitudinal bolt 4, said bolt having at one end a head 5 and being threaded at the other end for the reception of a nut 6, and in order that the pressure of the bolt, head and nut may be distributed uniformly throughout the area of each head of the barrel I preferably provide the latter with a metal spider having a central ring 7 and an outer ring 9, these two rings being connected by radiating arms 10 and the outer ring bearing upon the barrel head adjacent to the periphery of the same and being, by preference, provided with a depending flange 11 which covers the edge of the head and serves to armor the same and protect it from injury, the outer corner of the head being also stiffened and protected by the metal at the angle between the ring 9 and its depending flange 11.

Where the use of a central bolt extending through the barrel is not desirable, the outer flanged ring 9 alone may be used and the flange may be extended at intervals, as shown for instance, at 12, these flange extensions being secured by nails or other equivalent fastenings to the staves, as shown in Fig. 4, or, if desired, both of the means which I have shown and described for securing the heads to the staves may be adopted in one and the same structure.

A barrel thus constructed can be kept perfectly tight without the use of the usual hoops.

I claim:

1. A barrel having two groups of staves, those of one group alternating with those of the other, and those of one group having their edges beveled reversely to those of the other group, in combination with grooved heads whereby the staves are maintained in proper relation one to another.

2. A barrel having two groups of staves, those of one group alternating with those of the other, and those of one group having their edges beveled reversely to those of the other group, in combination with heads having their inner faces provided with beveled grooves for receiving correspondingly beveled ends on the staves.

3. A barrel having two groups of staves, those of one group alternating with those of the other, and those of one group having

their edges beveled reversely to those of the other group, in combination with heads grooved on the inner faces to receive the ends of the staves, and means for confining said heads to the staves.

4. A barrel having two groups of staves, those of one group alternating with those of the other, and those of one group having their edges beveled reversely to those of the other group, in combination with heads grooved on the inner faces to receive the ends of the staves, and means for confining said heads to the staves, said means including a ring resting upon the outer face of the head at and near the periphery of the same, said ring having a depending flange lying against the outer peripheral face of the head.

5. A barrel having two groups of staves,

those of one group alternating with those of the other, and those of one group having their edges beveled reversely to those of the other group, in combination with opposite heads grooved on their inner faces to receive the ends of the staves, a central bolt passing through the barrel, and a metallic spider bearing against the outer face of each head, one of said spiders providing a bearing for the head of the bolt and the other providing a bearing for the nut applied to the bolt.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WALTER M. SHREVE.

Witnesses:

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JOSEPH DI PALMA.