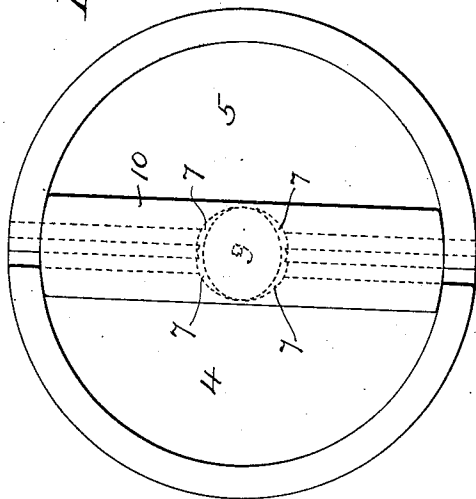
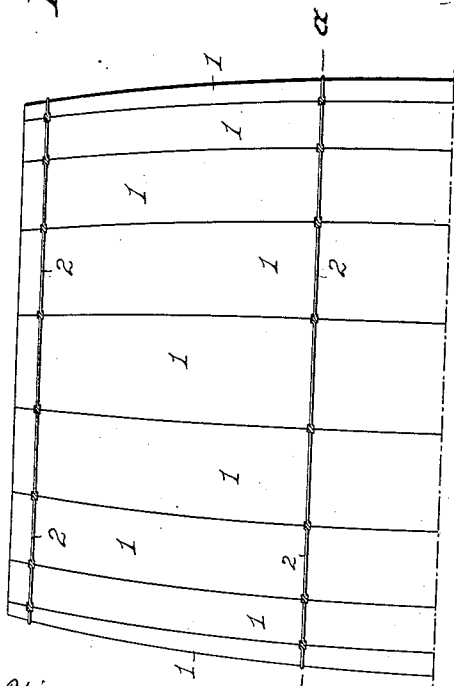
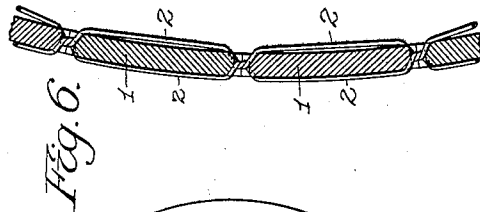
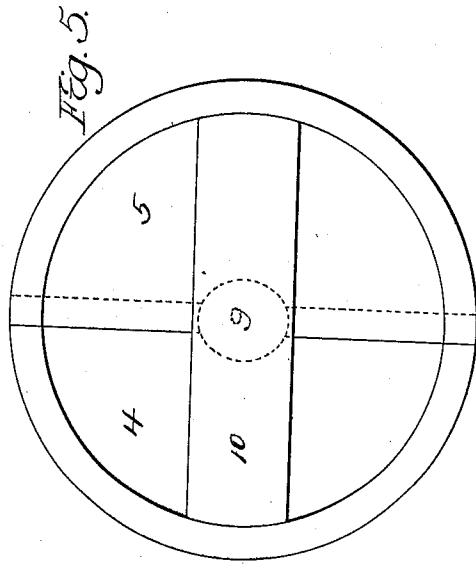
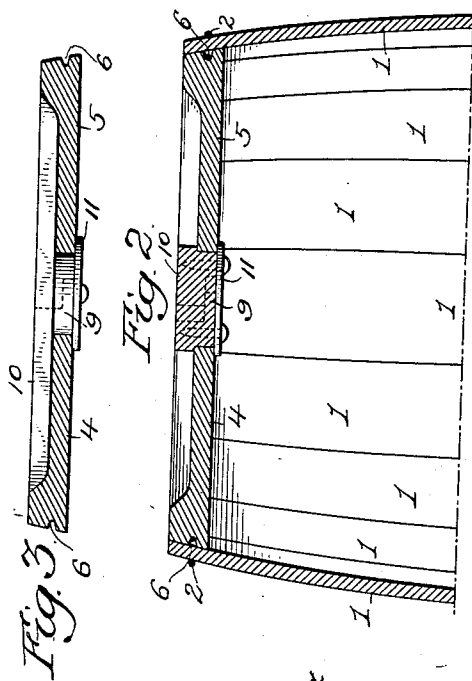


E. W. ROBINSON.
BARREL.

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1,058,004.

Patented Apr. 1, 1913.



Witnesses
Samuel J. Turner
Olsie Fullerton

Fig. 1

Fig. 4

Inventor
Edward W. Robinson
by his Attorney
Harry Smith

UNITED STATES PATENT OFFICE.

EDWARD W. ROBINSON, OF SAVANNAH, GEORGIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO INTERNATIONAL BARREL COMPANY, OF SAVANNAH, GEORGIA, A CORPORATION OF GEORGIA.

BARREL.

1,058,004.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Original application filed November 9, 1910, Serial No. 591,505. Divided and this application filed December 14, 1910. Serial No. 597,382.

To all whom it may concern:

Be it known that I, EDWARD W. ROBINSON, a citizen of the United States, residing in Savannah, Chatham county, State of Georgia, have invented certain Improvements in Barrels, (the same being a division of my application, Serial No. 591,505, filed November 9, 1910,) of which the following is a specification.

My invention relates to barrels composed of staves interwoven with properly spaced pairs of wires which take the place of the usual hoops for retaining the staves in proper relation to one another, and my invention relates particularly to a barrel of this type intended for the storage and transportation of powdered or granular material and technically known as a "slack" barrel in contradistinction to what is technically known as a "tight" barrel, which is intended for the storage and transportation of liquids.

The object of my present invention is to provide a strong and durable head for a barrel of this type, which head can be readily applied or removed, and which, when in position, will effectively back up or reinforce the ends of the staves. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of part of a barrel constructed in accordance with my present invention; Fig. 2 is a vertical section of one end of the barrel with the head inserted therein; Fig. 3 is a sectional view of the head as it appears when detached from the barrel; Fig. 4 is a top view of the head showing the parts of the same in the position assumed by them when the head is inserted in the barrel, as in Fig. 2; Fig. 5 is a top view of the head showing the parts in the position assumed by them when the head is removed from the barrel, as in Fig. 3, and Fig. 6 is a sectional plan view of part of the barrel, on the line *a—*a**, Fig. 1. Fig. 6 is on a larger scale than Figs. 1 to 5, inclusive.

The barrel is composed of staves 1 which are preferably narrower at the ends than at the center so that when the staves are drawn together until their edges meet, the barrel will present the desired bilged form, the edges of the staves being beveled to insure

the close fitting of the same. The staves 55 are confined in position by as many pairs of wires 2 as it may be desired to employ, each stave being inserted between the wires of each pair and the latter being twisted together between the staves which are mortised at each edge, as shown at 3 in Fig. 6, in order to receive these twisted portions of the wires.

The head of the barrel is composed of two laterally separable members 4 and 5, whose central or meeting edges are rabbeted, as shown by dotted lines in Figs. 2, 3, 4 and 5, and whose peripheral portions are grooved, as shown at 6, in Fig. 3. The meeting portions of the members 4 and 5 of the barrel head are recessed, as shown at 7, for the reception of a cam 9 which is secured to or forms part of a batten 10 on the outside of the head and a plate 11 on the inside of the head, whereby said cam structure is vertically confined to the members of the head but is free to turn thereon. When the cam is turned so that its major axis is parallel with the joint between the two members of the head, as shown in Figs. 3 and 5, said members of the head can approach each other so that their adjoining edges will meet and the diameter of the head is thereby contracted to such an extent that it can be readily introduced into or removed from the barrel. When, however, the cam 9 is turned to such position that its major axis is at right angles to the joint between the two members of the head, as shown in Figs. 2 and 4, said members are formed apart and the grooved periphery of the head is caused to engage with the inner of the pair of wires with which the end portions of the staves are interwoven, the head being thereby securely locked to the barrel so as to resist either pressure from the outside tending to force it into the barrel or pressure from the inside tending to force it out of the barrel.

By preference the staves are concave on their inner faces as shown in Fig. 6, and the central portion of each inner wire, bridging this concave, will, therefore, occupy a position some distance inward from the inner face of the stave and will provide a better hold for the grooved periphery of the barrel head than it would if it laid snugly against the inner side of the stave. The pe-

ripheral portion of the barrel head is of such thickness as to be flush with the ends of the staves and thus provides backing or support for said staves, up to the ends of the latter, as shown in Fig. 2, but the outer face of the head is recessed, up to a point adjacent to the periphery, as also shown in Fig. 2, the purpose of this recess being to lighten the head and to prevent the cam-operating batten 10 from projecting beyond the head. By preference, the batten occupies a position at right angles to the joint between the members of the head when the latter are contracted, as shown in Figs. 3 and 5, and parallel with said joint when the members are expanded, as shown in Figs. 2 and 4, the batten then serving to close the gap between the outer portions of the rabbeted joint and thus preventing any leakage which might otherwise take place at said joint. This, however, is simply in the nature of an added precaution, since the rabbeted portions of the joint are intended to overlap sufficiently to prevent leakage under normal circumstances.

The batten 10, on the outside of the head, and the plate 11, on the inside of the head, effectually prevent leakage through the recesses 7 in the opposite members of the head when said members are expanded. When it is desired to seal the barrel, such sealing can be readily effected by securing the batten in the locking position shown in Figs. 2 and 4 by driving a nail or screw through the batten and into one of the members of the head and then applying a seal of any desired character to the head of said nail or screw, or suitable staples, one on the batten and

the other on one of the head members, may be connected by a wire whose ends are secured by the usual lead seal, or other equivalent means of sealing the batten in the locking position so that it cannot be moved from such locking position without breaking the seal, may be adopted.

I claim:

1. The combination of a barrel composed of close fitting staves interwoven with pairs of wires to form a permanent bilge, and a head composed of laterally separable members having their peripheral portions grooved for engaging the inner wire of the pair at the end of the barrel, and means for maintaining said members of the head in separated position and in engagement with said wires.

2. The combination of a barrel composed of close fitting staves interwoven with pairs of wires to form a permanent bilge, and a head composed of laterally separable members having their peripheral portions grooved for engaging the inner wire of the pair at the end of the barrel, and means for maintaining said members of the head in the separated position and in engagement with the wire, said head having a thickened integral peripheral portion, whereby its outer face is flush with the ends of the staves.

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

EDWARD W. ROBINSON.

Witnesses:

KATE A. BEADLE,
HAMILTON D. TURNER.