

H. M. FITZHUGH.

Barrel.

No. 160,664.

Patented March 9, 1875.

Fig. 1.

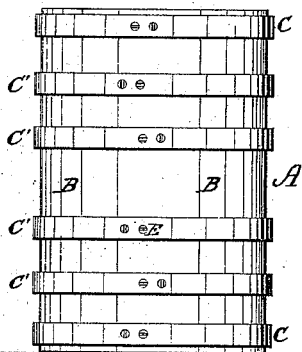


Fig. 2.

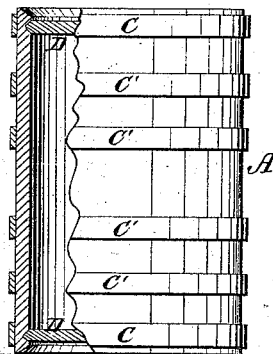
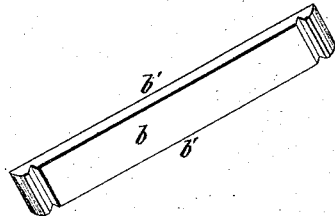


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY M. FITZHUGH, OF BAY CITY, MICHIGAN.

## IMPROVEMENT IN BARRELS.

Specification forming part of Letters Patent No. **160,664**, dated March 9, 1875; application filed January 16, 1875.

*To all whom it may concern:*

Be it known that I, HENRY M. FITZHUGH, of Bay City, in the county of Bay and State of Michigan, have invented a new and useful Improvement in Barrels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figures 1 and 2 are elevations, the latter partly in section. Fig. 3 is a detail view of the stave.

The invention will first be described, in connection with all that is necessary to a full understanding thereof, and then pointed out in the claims.

A represents the barrel, which is formed of staves B that are straight longitudinally on their broad faces *b*, and on their edges *b'*. After being arranged in juxtaposition on a cylindrical frame (or in any other manner) around the heads D D, the staves are surrounded by a series of open-ended bands, C C', whose two ends are constricted or drawn by any suitable power until the stave-joints are all made tight, the staves securely bound together, and the ends of bands overlapped. Through holes which are then or previously punched in these ends I pass a small tack or nail, but preferably a screw, E, that enters the wood, and thus serves to prevent these ends from separation.

The advantage of this barrel is, that it can be manufactured entirely without the usual bulge, and therefore allows the staves to be sawed out and made ready without any expensive cooperage, while the barrel itself is rendered much stronger and tighter by the constricted hoops than where the latter are driven upon the bulge of an ordinary barrel.

I am aware that tires are constricted or drawn tight upon the rims of wheels, and that a removable band has been used over the end of a barrel, the said band being slackened to allow the head to be removed and tightened to hold the head in place; but I believe that no one has ever constructed a practicable straight barrel, or one held at the middle, ends, and altogether by constricted hoops.

Having thus described my invention, what I claim as new is—

1. The combination, with heads D D, of straight staves B and constricted bands C C' on and between the ends of a barrel, as and for the purpose described.

2. The combination, with a barrel, of a band, B, having overlapping ends fastened to the barrel by a screw extending into the wood, as and for the purpose specified.

HENRY M. FITZHUGH.

Witnesses:

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