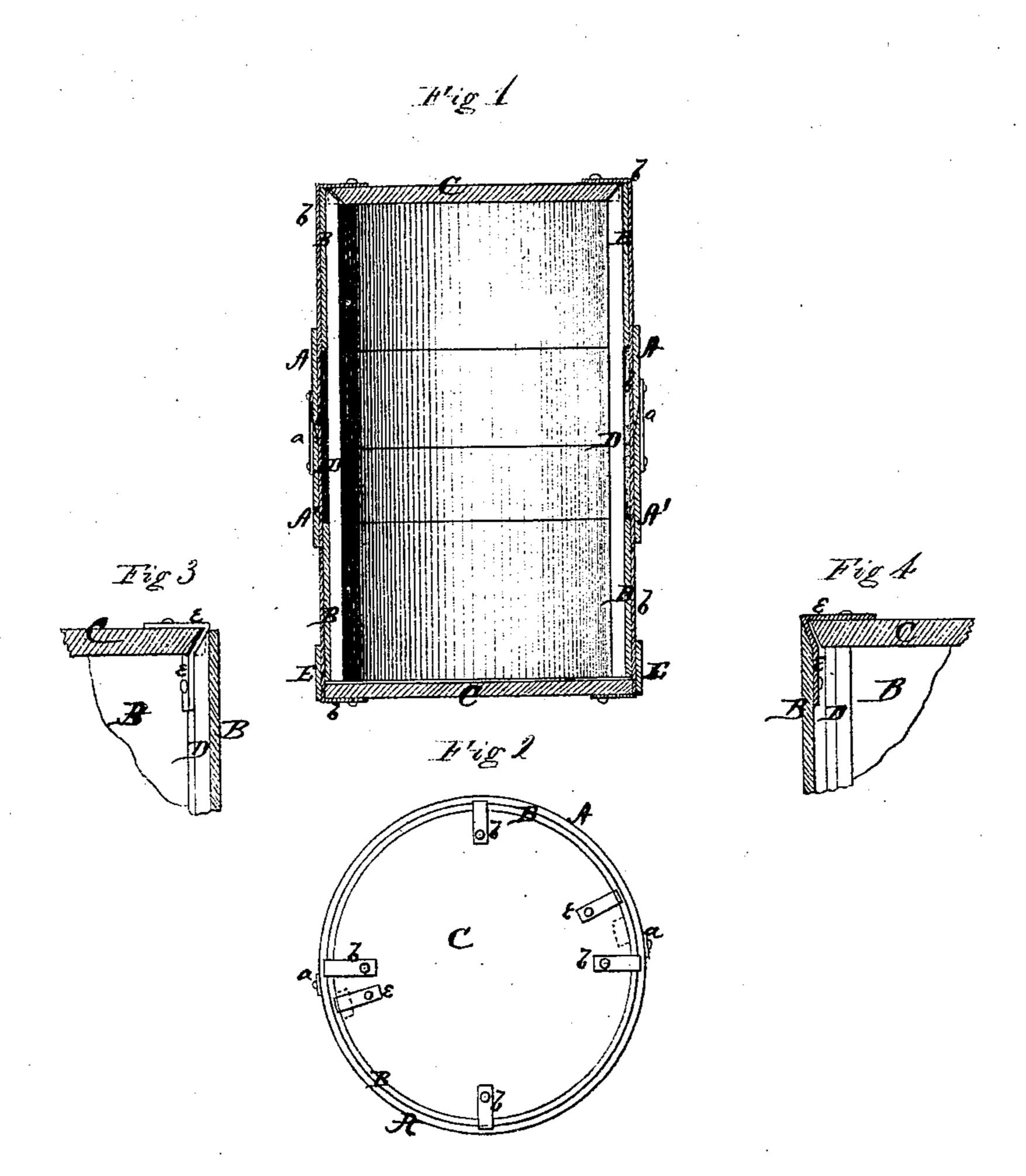
A.C. Forder

Barrel.

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Fateriled Apr. 26.1870.



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Anited States Patent Office.

HENRY G. PORTER, OF GRAND RAPIDS, MICHIGAN.

Letters Patent No. 102,432, dated April 26, 1870.

IMPROVED BARREL.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, Henry G. Porter, of Grand Rapids, in the county of Kent and in the State of Michigan, have invented certain new and useful Improvements in Barrels; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in a novel mode of constructing barrels, kegs, casks, &c., as will be

hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a vertical section, and Figure 2 a plan view of my barrel.

Figures 3 and 4 are enlarged sections of the same.

A and A' represents two hoops of suitable dimensions, put together as shown in fig. 1, their edges be-

sions, put together as shown in fig. 1, their edges being beveled so as to form a joint, and further secured on the outside by means of metal strips a a.

At each end of the hoop thus formed, on the inside, is secured another hoop, B, of any desired width.

On the inside of the hoops A A' is secured a series of vertical metal strips, b b, which pass on the outside of the hoops B B, and turn over the edges so as to be fastened to the heads C C of the barrel.

The ends of the hoops B B are beveled on the inside, and the edges of the heads C C are beveled to correspond, as shown in figs. 3 and 4, so as to fit nicely.

The barrel, thus formed, is strengthened on the inside by ribs D D extending from end to end of the barrel.

The ends of the ribs D D are beveled, and the heads C C are cut out or notched on their inner sides so as to fit on the ends of said ribs.

The heads C C may be further strengthened by

means of smaller hoops E on the outside of the barrel, and they may be further secured by small metal strips e e, as shown in figs. 3 and 4. One of said strips is nailed on the inside of one of the ribs D and bent over the edge of the head, and secured to the outside of the same. The other strip e is secured to the inside of the barrel itself, and fastened in like manner to the outside of the head.

I do not mean to be understood as confining myself to the use of all these various parts in one barrel, keg, or cask, as I may, for instance, use a series of hoops, A A', connected in the manner above described, dispensing with the hoops B B; or, I may dispense with some of the fastenings, according as more or less strength is required.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a barrel having a series of horizontal sections, A or B, beveling the inner edges of the top section and the circumference of the top C, so, when placed together, they form an even surface on top, as shown and described.

2. In combination with the top C and horizontal sections A or B, the elongated brace b, which extends on the exterior of the sections, and is bent over on the cover, and under on the bottom, all as set forth.

3. In combination with the top section B and cover C, (or bottom section and bottom proper,) the metallic brace e, passing from the inner part of the section, between it and the cover, (or bottom,) and over and upon the cover or bottom, as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 18th day of January, 1870. HENRY G. PORTER.

Witnesses:

BENJAMIN A. HARLAN, L. F. NEWTON.