

H. WILLARD.

Barrels.

No. 136,196.

Patented Feb. 25, 1873.

Fig. 1.

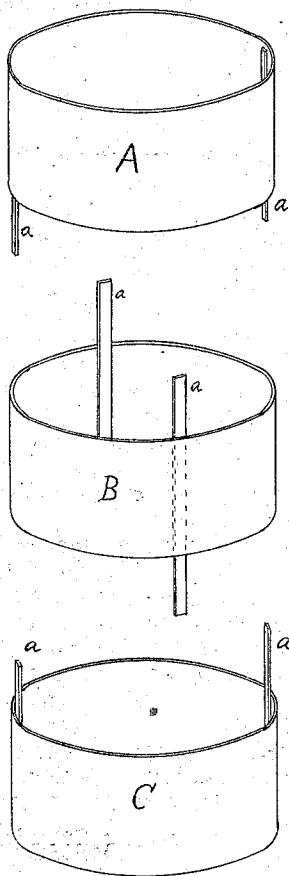


Fig. 2.

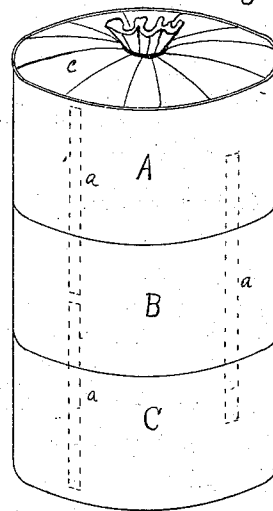
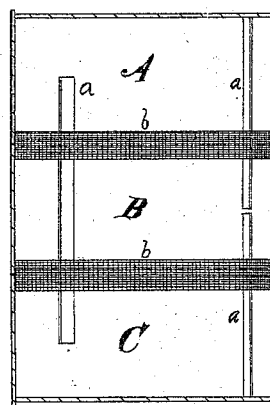


Fig. 3.



Witnesses.
Charles C. Simmonds.
Edward Jaggar

Inventor.
Henderson Willard

UNITED STATES PATENT OFFICE.

HENDERSON WILLARD, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN BARRELS.

Specification forming part of Letters Patent No. 136,196, dated February 25, 1873.

To all whom it may concern:

Be it known that I, HENDERSON WILLARD, of Grand Rapids, Michigan, have invented certain new and useful Improvements in Barrels, of which the following is a full and sufficient specification, reference being had to the accompanying drawing and letters of reference marked thereon, in which—

Figure 1 is a detached sectional view of a cylinder for bent barrel or other circular package, showing my plan of cleating the sections A B C separately, and of building up the cylinder. Fig. 2 is a perspective view of the cylinder with sections A B C in position, the relative position of cleats being indicated by the dotted lines *a a*. Fig. 3 is a vertical sectional view of the cylinder, showing the application of cloth or other equally flexible material *b b* over the joints between sections.

Like letters in the different figures indicate like parts.

I apply the cleats *a a* to the sections separately. These cleats extend across the section and project beyond a given distance far enough to fasten securely to the next section or band. In this way cylinders may be built up of cheese-hoops or similar bands, cheaply and rapidly, without the aid of expensive machinery or skilled labor, young boys being capable of performing the work without experimenting.

In making these packages for fine goods—like flour, sugar, plaster, &c.—I apply cloth instead of wooden bands over the joints between sections, on either inside or outside; and I apply it in strips *b b* at less than utmost width or tension, to prevent it from tearing should the joints part in seasoning. Cloth, being more flexible than wood, is a much better covering for the joints, and it may be applied at any time by anybody, whereas wooden bands for the purpose must be rolled on when the package is made.

The number of sections A B C to be used will depend upon size of package and width of lumber. I apply the heads in the obvious way between two narrow hoops. The chine or head-lining hoop should also be battened with cloth where it rests upon the head, if the package is to contain flour.

I claim—

A wooden cylinder for barrel or similar package, constructed of sections A B C, two or more, battened with cloth or other equally flexible material *b b*, substantially as described.

HENDERSON WILLARD.

In the presence of—

JOHN WINTER,
F. RAYNSFORD.