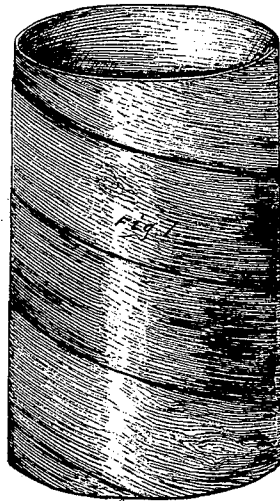


H. Millard,

Barrel.

No. 101,956.

Patented Apr. 12, 1870.



Witnesses.

*Isaac H. Newton
Joseph H. Walker*



Inventor.

Henderson Millard

United States Patent Office.

HENDERSON WILLARD, OF GRAND RAPIDS, MICHIGAN.

Letters Patent No. 101,956, dated April 12, 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, HENDERSON WILLARD, of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Barrels; and I do hereby declare the following to be a full and sufficient description of the same, reference being had to the accompanying drawings which make part of this specification, and in which—

Figure 1 represents a barrel as constructed by my improvement, and

Figure 2 is a similar view representing a modification.

Like letters of reference indicate like parts in both figures.

The nature of my invention consists in forming a barrel or other similar package of a single spiral stave of either wood or metal, or other suitable material.

The stave is made of metal or thin lumber manufactured for the purpose. If made of timber, the same is steamed and bent spirally over a proper form, the edges lapping far enough to be fastened firmly by tacks, nails, rivets, or any other suitable means; or the edges may just meet, or nearly so, and the space between the edges be covered by a spiral band or hoop as shown in fig. 2, which band or hoop may be suitably secured on the barrel. If made of metal, the edges may have a corrugation the length of the stave,

which seize over each other, and they may be soldered. Or the edges may merely lap and be soldered, according to the strength of the package required.

These barrels or packages may be headed and hooped in the usual way. For many uses the hooping may be dispensed with, the barrel being strong enough without. These barrels may be made of different sizes and used for all the purposes for which coopers' goods or ware are used. They are very strong; the grain of the wood running spirally, can neither split nor break, and being light and uniform in shape are very convenient to handle.

Having thus described my invention,

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

A barrel or similar package when constructed of one single spiral stave of wood, metal, or other suitable material, substantially in the manner herein described.

In testimony whereof I have hereunto set my hand and seal this 6th day of December, A. D. 1869, in presence of—

HENDERSON WILLARD. [L. S.]

Witnesses:

BENJAMIN A. HARLAN,
J. D. DILLENBACK.