L. A. Fleming,

Wooden Pail.

No. 98,578. Patented Jan. 4. 1870.

Fig: 1.

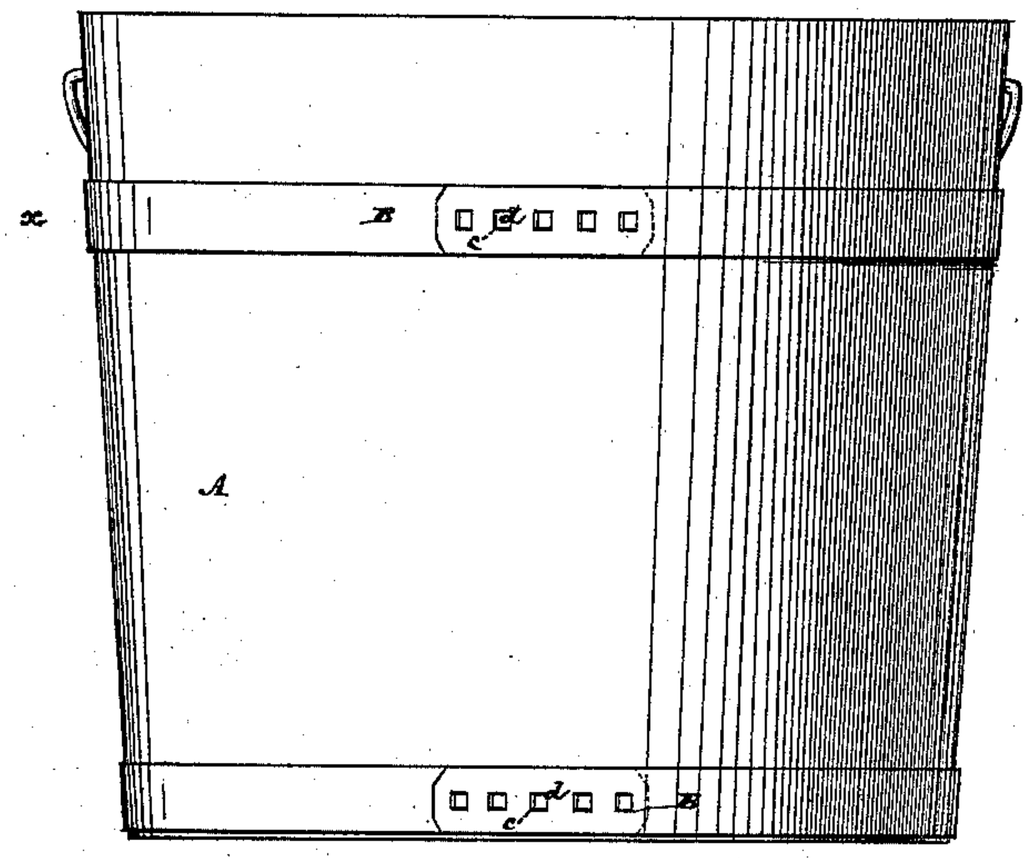


Fig: 4.

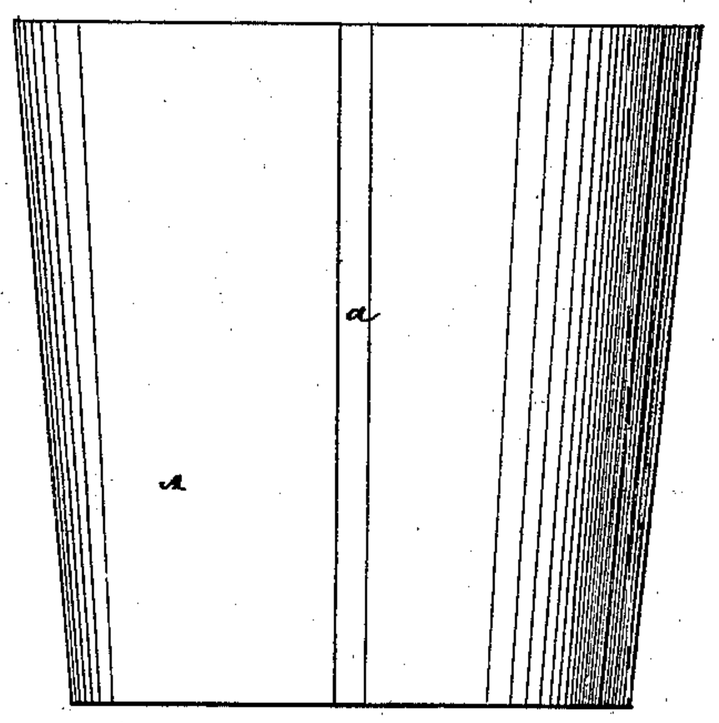


Fig: 2.

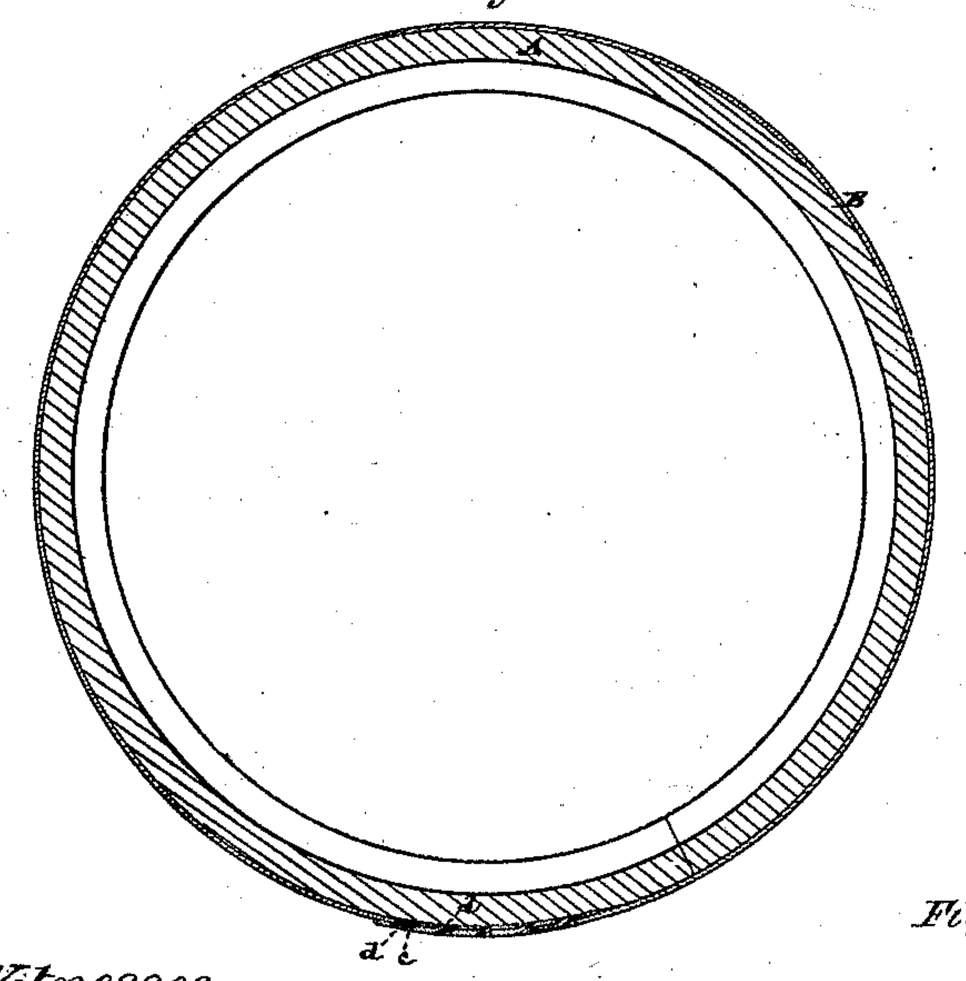


Fig: 5.

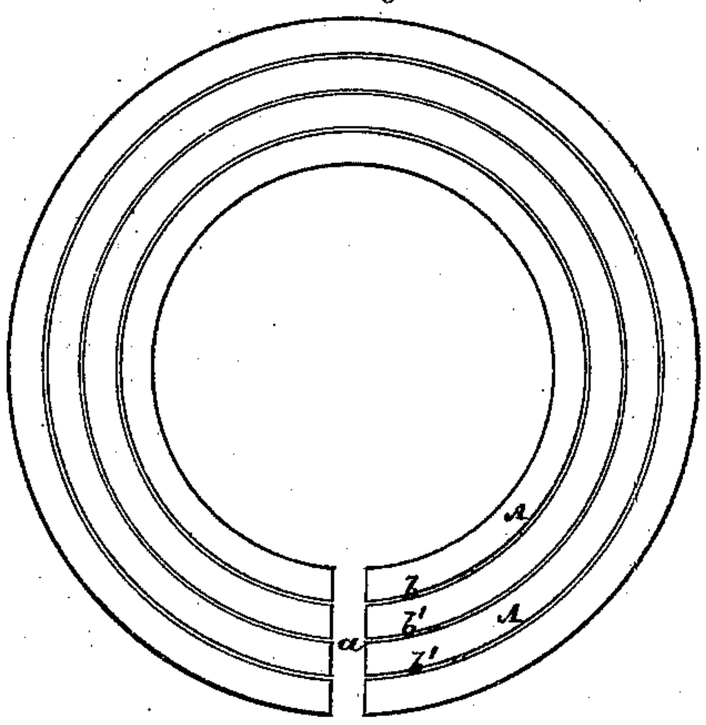
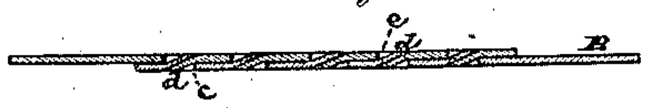


Fig: 3.



Witnesses:
Fred: Haynes
R. E. Rabeau

Inventor:
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United States Patent Office.

LEONARD ASA FLEMING, OF WEST MOUNT VERNON, NEW YORK.

Letters Patent No. 98,578, *dated January* 4, 1870.

IMPROVEMENT IN WOODEN PAILS.

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, LEONARD ASA FLEMING, of West Mount Vernon, in the county of Westchester, and State of New York, have invented a new and useful Improvement in Pails, and other Wooden Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents an outside view of a pail, constructed in accordance with my improvement;

Figure 2, a horizontal section of the same, through the line *x x* in fig. 1; and

Figure 3, a horizontal section, on a larger scale, of a portion of one of the hoops to the pail, showing the manner in which the hoops are locked or fastened.

Figures 4 and 5 are side and end views of a block of wood during the process of forming a series of pails or pail-bodies from it.

Similar letters of reference indicate corresponding parts.

My improvement relates to pails and other wooden vessels, having their bodies made out of a single piece, the ends of which are sprung or drawn together to form the joint, and my improvement, in this connection, differs from the bodies of such articles tapering in direction of their length, and cut in a scroll form, which produces an irregularity in the make, by cutting them of a true circular shape in their transverse section, and tapering as regards their length, subject to a longitudinal opening or division.

Referring to the accompanying drawing—

To manufacture pails, and other vessels, I take a block of wood, and, setting it up endwise on a sloping and adjustable bed or table, work up the same into a series of hollow bodies, of a circular form in their transverse section, by subjecting the block to the action of a vertically-operating band-saw.

This I do, first, by cutting out a radial slot, *a*, in the block, to within a given distance of the centre of the latter, and of a width equal to that of the band-saw. (See figs. 4 and 5.)

I then suitably turn the block, relatively to the saw, and rotate it, or the stand on which it rests, to cut and remove a core or central solid portion from it, and subsequently give it cross-feed, and again rotate it to make a second circular cut, *b*, and so on, for any number of concentric cuts *b'*, until the block is cut up into a series of cylinders, having a longitudinal division in them, as formed by the cut *a*, and of any suitable taper in direction of their length, by giving the block a proper inclination while being cut.

Each of the divided cylinders A, thus cut, forms a pail or vessel-body, of tapering construction, and having a straight run of the grain in direction of its length, also, of uniform thickness and character throughout, which is not attainable by a scroll-cut, said divided cylinder only being required to be slightly sprung or drawn together at its edges, to close the joint, and, in doing which, its inner periphery is uniformly compressed crosswise of the grain of the wood, and thus rendered less impervious, equally all around, while, in a scroll-cut sheet, one-half is compressed on its inner side, and the other or shorter curve is expanded or opened in bringing the edges together and in line.

Tapering vessel-bodies may thus be made to advantage, and sufficiently clean or smooth to require no subsequent planing, apart from the economy that results from working or using up the wood, as described.

The bottom or end of the vessel having been inserted, and body A closed around it, said vessel is secured, and the body kept closed or made tight, by means of hoops D, which are secured, when closed, in a peculiar manner, dispensing with rivets, or other independent fastenings.

Thus, the hoop, for a given distance from its ends, has struck or stamped in it recesses *c*, with the metal, as pressed but not cut out of them, bent outward or inward, to form locking-lips *d*.

These lips are bent in reverse directions, as regards the two ends of the hoop, the one set projecting or bending inward, and the other outward, the same opening to inverse or opposite directions, as regards the length of the hoop, so that on overlapping the one end of the hoop over the other, a double and reverse clip or lock is established by fitting the lips *d*, of either end of the hoop, through the recesses *c* in the other end, as clearly represented in fig. 3. This forms a cheap, simple, and efficient mode of locking the hoops, and conduces to the cheapness and strength of the pail.

I do not claim hollow-ware formed by cutting a log of wood into helical strips, nor what is commonly known as "bent-ware," in which the sheet is bent in the direction of its grain or fibre; but

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

The method, herein described, of cutting the body-part of pails, or other circular wooden vessels, as set forth.

LEONARD ASA FLEMING.

Witnesses:

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