

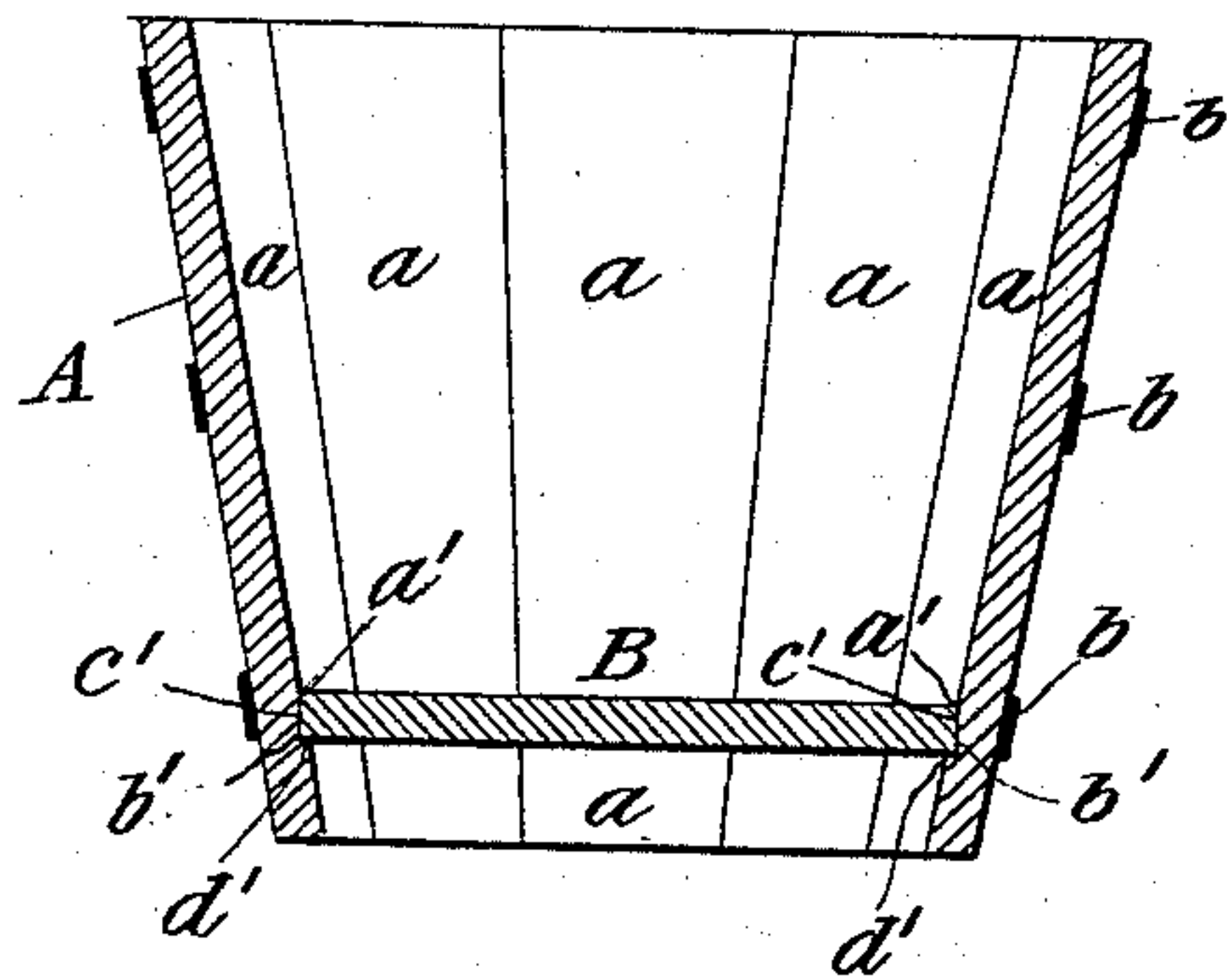
(No Model.)

J. P. RUST.  
WOODEN PAIL.

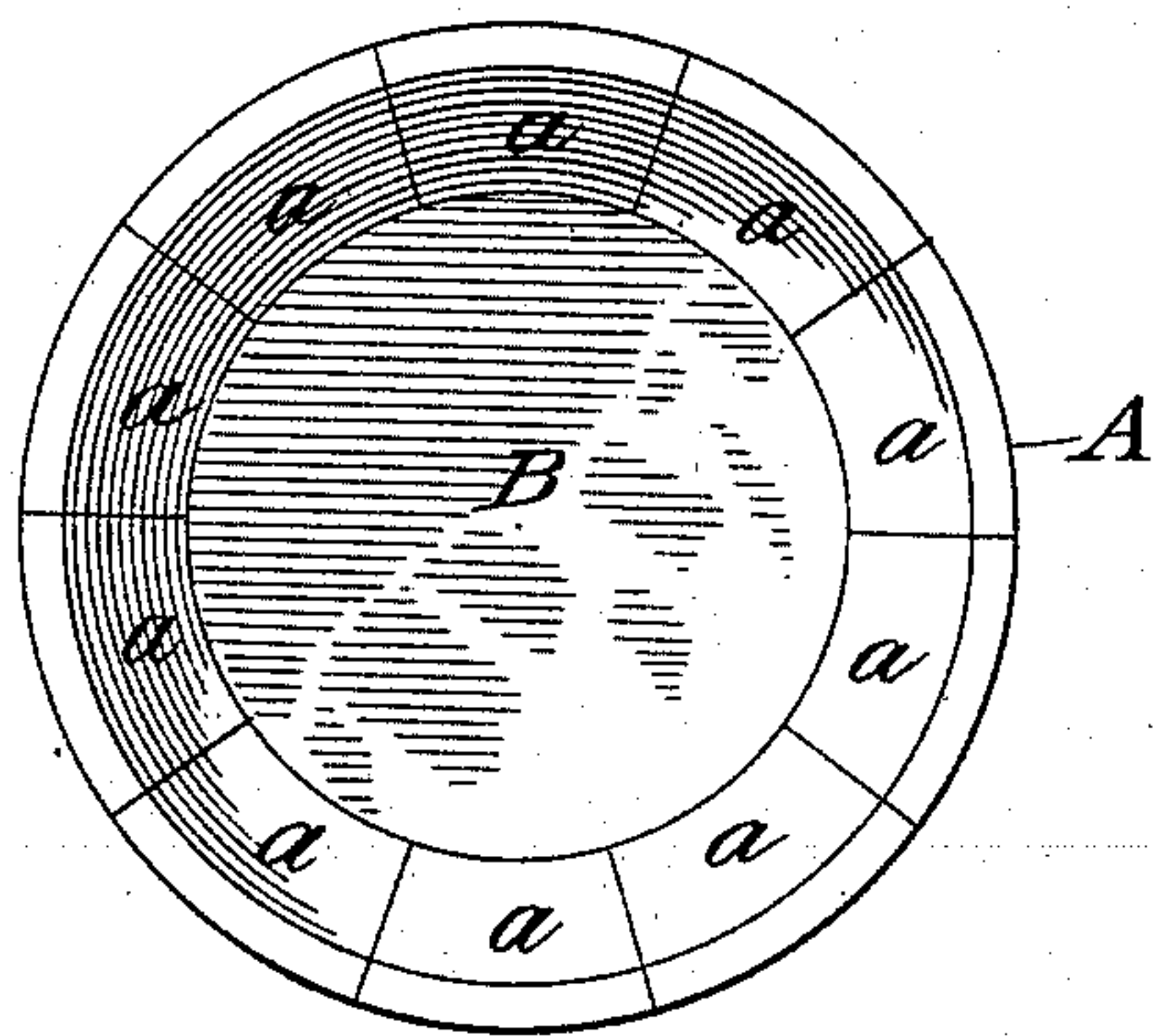
No. 580,651.

Patented Apr. 13, 1897.

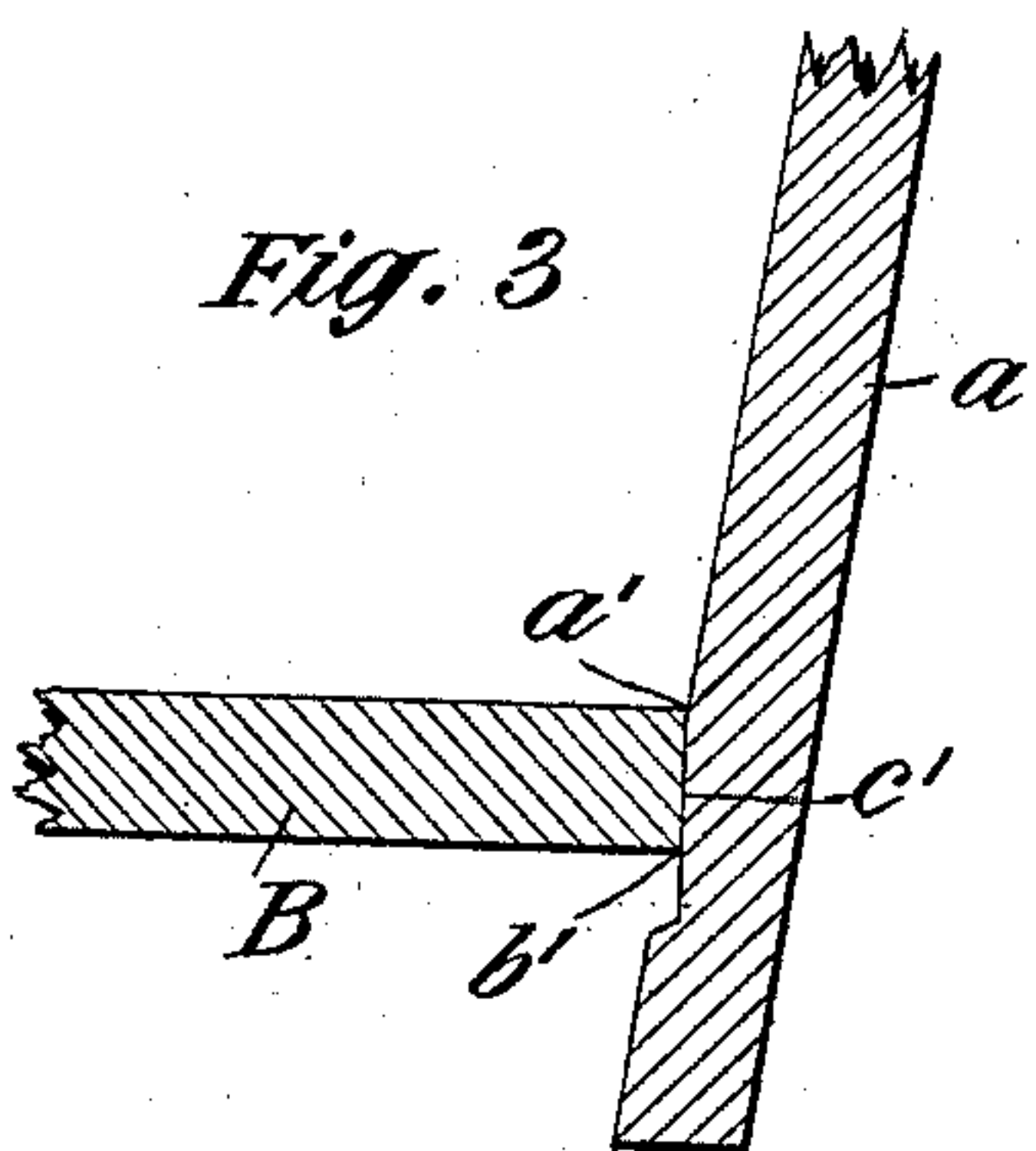
*Fig. 1*



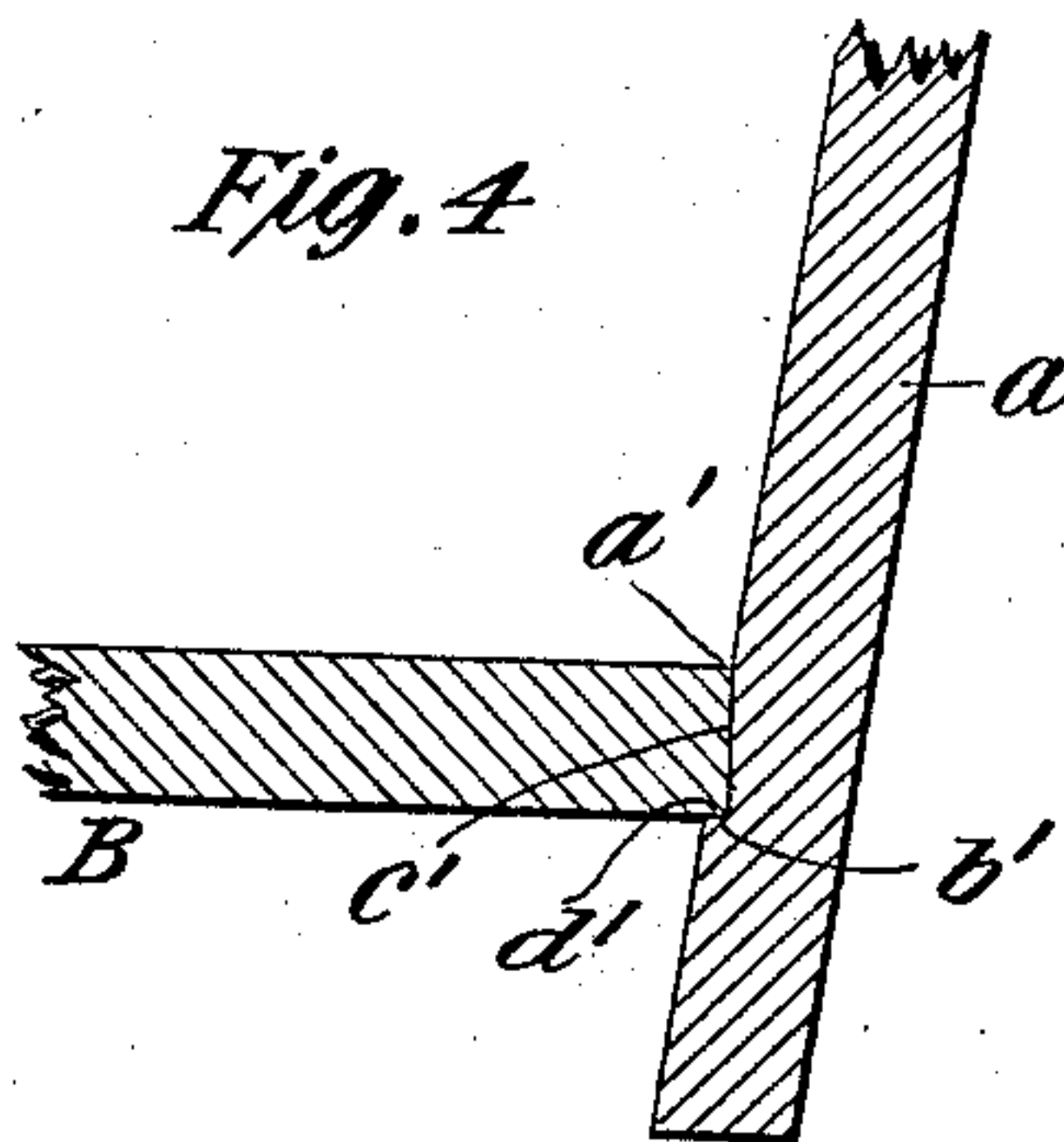
*Fig. 2*



*Fig. 3*



*Fig. 4*



Witnesses:

Rapkaët Netter  
Henry S. Read

by

John P. Rust Inventor  
per  
James A. Whitney  
Attorney.



# UNITED STATES PATENT OFFICE.

JOHN P. RUST, OF KEENE, NEW HAMPSHIRE.

## WOODEN PAIL.

SPECIFICATION forming part of Letters Patent No. 580,651, dated April 13, 1897.

Application filed February 8, 1896. Serial No. 578,608. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. RUST, of Keene, in the county of Cheshire and State of New Hampshire, have invented certain new and  
5 useful Improvements in Wooden Pails, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying  
10 drawings, making a part of this specification, in which—

Figure 1 is a central vertical sectional view of a wooden pail made according to my invention; Fig. 2, a plan view of the same. Figs. 3 and 4 are detail sectional views, on a  
15 larger scale, still further illustrating my said invention.

The object of the invention is to produce a wooden pail or similar frusto-conical or tapered vessel having its open mouth or upper  
20 end wider than its base or bottom, having a croze or seat for the head of substantially cylindrical form cut in the staves near the bottom, and having a bottom of substantially cylindrical form with its edge resting against  
25 said seat or croze and supported by the shoulder below but not above the croze.

A is the body of the pail, of the usual tapering or flaring form, larger at top and smaller at bottom, and composed of staves *a a a*, &c.,  
30 held together by hoops *b b* in the usual or in any suitable manner. The staves at their inner sides toward their lower ends, at the place where the bottom B of the pail is located, are each somewhat recessed or cut across in a  
35 chamfer-like manner, as shown at *c'*, the recess *c'* of each being coincident with those adjoining, so that what may be termed a "cylindrical seat" or "croze" or "bearing" is provided to the inner circumference of the  
40 body at its lower part, as from *a'*, above to *b'* below in Figs. 1, 3, and 4. In other words, while the sides of the pail constituted by the staves *a a a*, &c., are at an angle to the vertical axis of the pail the surface presented by  
45 the bearing just mentioned is vertically substantially parallel with said axis. It is not to be understood that this parallelism must be exact. It is sufficient for the purposes of my invention that it be so to such an extent  
50 as in practice secures the mode of operation

and its accompanying results in substantially the way and manner herein set forth.

It will be seen that the shoulder on the stave at the lower end of the croze is at a right angle to the axis of the pail and not at  
55 a right angle to the face of the stave.

The bottom B comprises a disk which, peripherally considered, is cylindric or substantially so—in other words, the circumferential surface of which is vertical to the flat or  
60 practically flat upper and lower sides of said bottom, as illustrated in Figs. 1, 3, and 4.

The flaring or tapered body A being constructed as hereinbefore described, the bottom B is placed within the same from the  
65 larger end thereof, and the parts being properly proportioned the bottom is forcibly driven inward until its circumference is brought within and is embraced by the bearing *a' b'*, so that the vertical circumferential  
70 surface *c'* of said bottom is forced snugly against the bearing *a' b'* and is compressed at all parts thereby, so that the bottom is not only held in place by such constriction upon it, but a snug tight joint is provided between  
75 the periphery of the bottom and the lower part of the body A, and inasmuch as the bearing *a' b'* is, vertically considered, practically parallel with the axis of the pail there is ordinarily no appreciable tendency on the  
80 part of the bottom B to slip either up or down, so that there is substantially nothing to impair the constriction exerted by the lower part of the body about and upon the circumference of the bottom to retain the latter in position. It will be observed that by the means  
85 described not only is the bottom held snugly and securely in place, but also that it may be put in position and secured with very slight labor and by comparatively unskilled opera-  
90 tives. When desired—as, for example, when the pail is intended for holding or carrying unusually heavy contents—an extra precaution against the displacement of the bottom in a downward direction is provided by forming at the lower edge of the bearing *a' b'* a  
95 shoulder *d'*, against which rests the peripheral portion of the under side of the bottom, as represented in Fig. 4. This shoulder, it will be noticed, is intended simply to receive the  
100

weight of the bottom and its superincumbent load when for any reason the bottom may have been started downward, and this without impairing the snugness with which the  
 5 circumference of said bottom fits against and is compressed by the constrictive bearing *a'* *b'* surrounding the same.

The croze for the head of a pail, tub, or barrel is generally beveled from top and  
 10 bottom, and to insert or lift the head the hoop or hoops outside of such head must be moved. By my construction the bottom of the pail is inserted from the flared open end without moving the hoops and rests firmly on  
 15 the right-angled shoulder formed at the lower end or edge of the croze. The upper end of the croze merges with the surface of the inner face of the staves, leaving no shoulder above the pail-bottom. The weight on the

pail-bottom is supported on the squared shoulder of the croze, with little or no tendency to spread the staves or strain the hoop.

What I claim as my invention is—

A wooden pail or vessel composed essentially of hoops and staves, the body being of  
 25 frusto-conical form, the croze near the bottom end of the vessel being cut in form of a cylinder from the face of the staves and having a square shoulder below, and the pail-bottom of cylindrical form resting in said croze,  
 30 whereby in assembling the bottom may be entered from above without moving the hoops, and rests on said square shoulder, substantially as described.

JOHN P. RUST.

Witnesses:

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