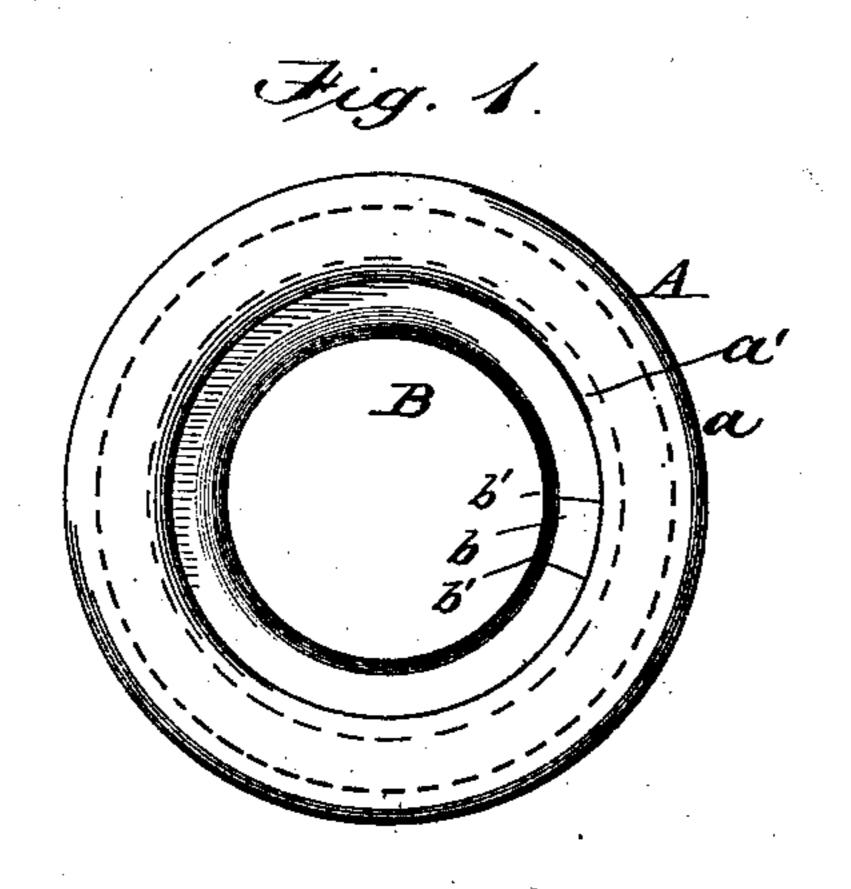
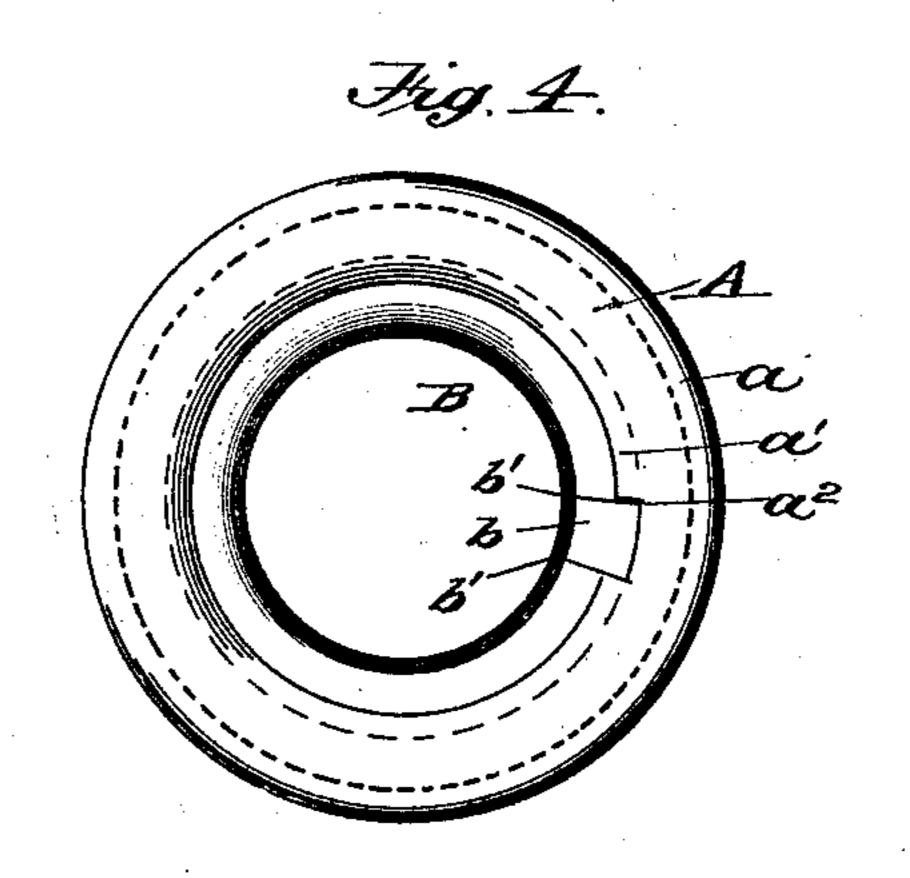
A. G. ANDERSON.

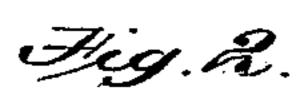
BUNG.

No. 298,265.

Patented May 6, 1884.







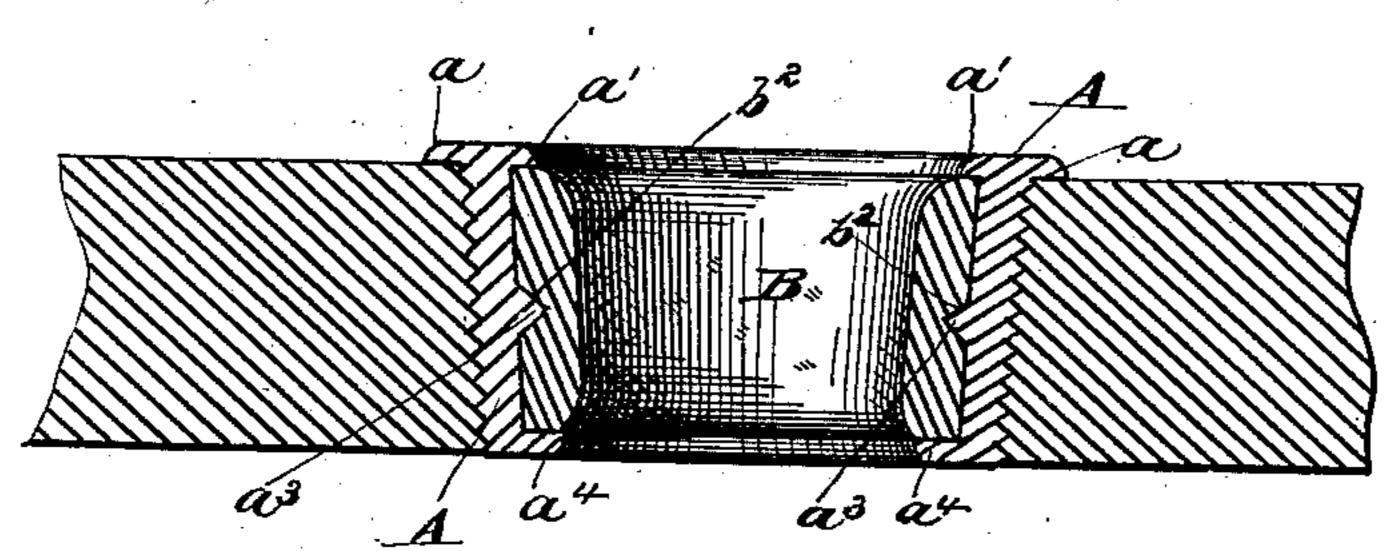


Fig. 3.

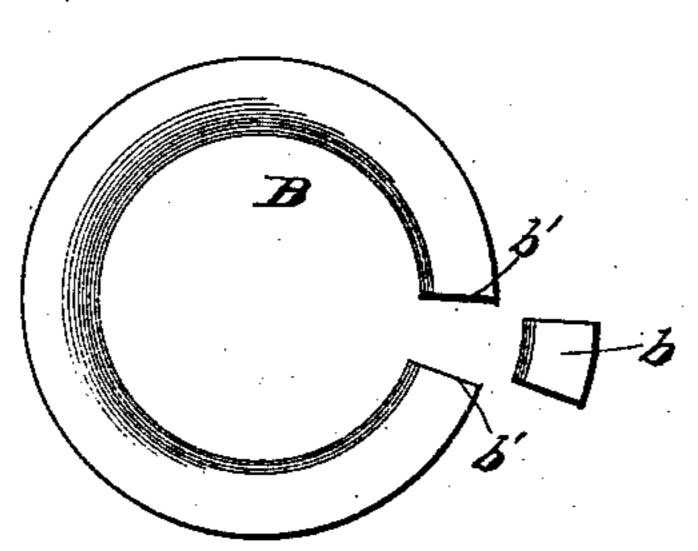
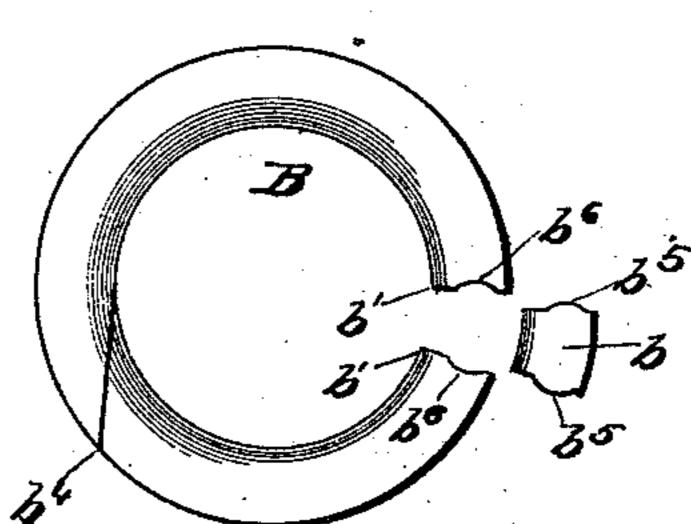


Fig. 5



Abtest:

Dennall Souhard

Inventor A.S. Anderson by Edsen Brod Attorneys:

United States Patent Office.

ANTON G. ANDERSON, OF CHICAGO, ILLINOIS.

BUNG.

SPECIFICATION forming part of Letters Patent No. 298,265, dated May 6, 1884.

Application filed January 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, Anton G. Anderson, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illi-5 nois, have invented certain new and useful Improvements in Bungs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains 10 to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to bung-bushings for 15 casks, barrels, &c., and has for its object a bung-bushing formed of metal and provided with an inner lining of wood, compressed wood, paper-pulp, vulcanized fiber, or other suitable material, said inner lining being so secured to 20 the bushing as to remain firm under any and

all circumstances.

The invention relates more particularly to the manner in which the lining is firmly seated within and between the upper and lower 25 flanges and against the inner surface of the bushing without breaking, crushing, weakening, or otherwise injuring the lining, which would be the case were it forced into the bushing through the upper flanges thereof. Again, 30 when the lining is inserted into the bushing in the manner above set forth—to wit, by forcing it through the upper flanges—the bung stopper or plug is liable, when pressed downward into the lining, to split the lining, inas-35 much as the lining (when inserted into the bushing through the upper flanges) does not bear against the inner surface of the bushing, in which case the lining is liable to be split by the strain exerted upon it by the plug, and to 40 thus cause leaks about said plug, as will be readily understood.

To obviate the above-named objections my invention has been made; and, as stated above, it consists in a lining so formed as to be inserted into a bushing without breaking or crushing the outer surface of such lining; and it further consists in the means employed to firmly fix and secure the lining in the bushing, so that the outer surface thereof shall bear 50 against the inner surface of the bushing, and thus prevent any strains (tending to split said lining) being exerted upon the bung-stopper of said lining.

In the drawings, Figure 1 represents a top plan view of a bung-bushing provided with 55 my improvement. Fig. 2 is a transverse section view of my improvement in position in a cask or barrel. Fig. 3 is a top plan view of the lining and its tightening-wedge. Fig. 4 is a top plan view of my bushing provided with 6c my improvement, and having a portion of its upper inner flange cut away for the insertion of a wedge. Fig. 5 represents a top plan view of the lining, having ribs or projections on the sides of its tightening-wedge.

Similar letters of reference in the drawings

denote like parts.

Referring to the drawings, A represents the metallic bushing, having the usual tapering form and screw-threaded outer surface, and 7c top and bottom flanges, a a' a', and also with a V-shaped flange, a^3 , surrounding its inner surface at a point preferably equidistant from its top and bottom. B represents a lining formed of wood, paper-pulp, or vulcanized 75 fiber pressed into shape. The lining is provided upon its outer surface with a V-shaped groove, b^2 , into which the ridge a^3 of the bushing fits, one side of said lining being provided with a cut-away portion, as shown, into which 80 a wedge, b, fits. The sides b' of the cut-away portion of B prevent the wedge from being removed from the lining when it is in position, while the wedge operates to firmly secure said lining within the bushing.

It will be readily seen that a lining constructed as described may be easily inserted into a bushing, inasmuch as it is only necessary to compress the lining, such compression being rendered possible by the cut-away por- 90 tion of said lining; and it will be also readily seen that the outer surface of the lining will bear against the inner surface of the bushing when in position, and that the wedge b will, when driven down, prevent any displacement 95

of said lining.

In Fig. 4 I have shown a bushing provided with a cut-away portion, a^2 , in its upper inner flange, for the easy insertion of the wedge b.

In Fig. 5 I have shown the sides of the wedge 100 provided with ribs $b^5 b^5$, that enter corresponding recesses in the sides b' of the lining B,

whereby is obtained an additional resistance to the withdrawal of the wedge; and in said Fig. 5 I have shown an additional modification of the cut-away portion of the lining, such modification consisting of a straight cut or slit, b4. As will be understood, the purpose of the cut-away portion of the lining is that said lining may be introduced easily into the bushing, such lining corresponding in diameter with the distance across the bushing upon the inner side thereof.

What I claim is—

1. In a bung-bushing, the combination of the metallic bushing A, provided with flanges a 15 a' a^4 , and a ridge, a^3 , with a lining formed of wood, or compressed wood, paper-pulp, or

other suitable material, having an external groove surrounding said lining, and means, substantially as described, whereby said lining may be inserted into the bushing, as set 20 forth.

2. In a bung-bushing, the split lining B, having the groove b^2 , in combination with a wedge, b, and the metallic bushing A, having ridge a^3 , substantially as described.

In testimony whereof I affix my signature in

presence of two witnesses.

ANTON G. ANDERSON.

Witnesses:

E. A. FISHER, PEDER M. PEDERSON.