

No. 732,995.

PATENTED JULY 7, 1903.

W. G. AVERY.
REINFORCED CYLINDRICAL CASK.
APPLICATION FILED FEB. 9, 1903.

NO MODEL.

Fig. I

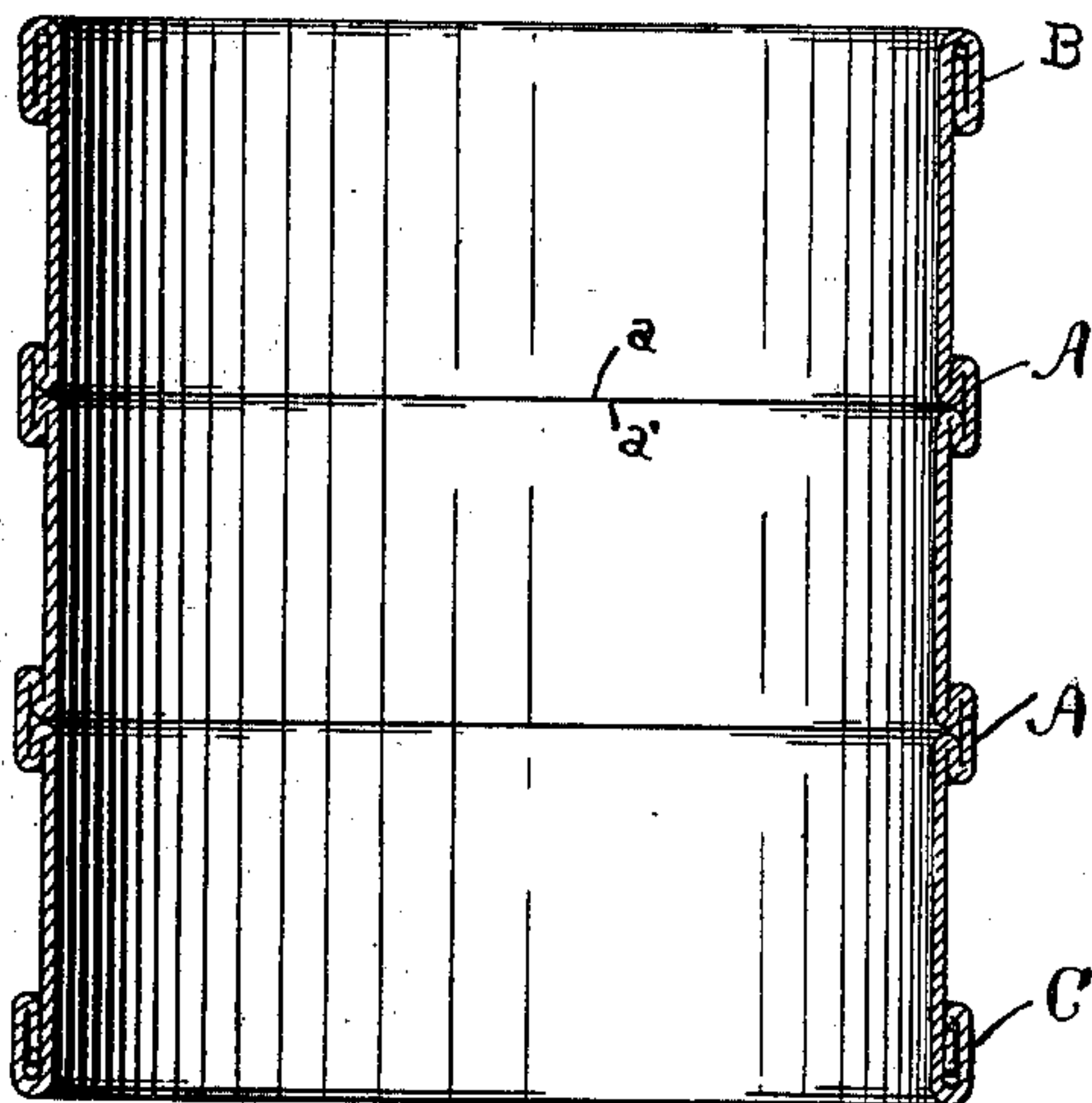


Fig. II

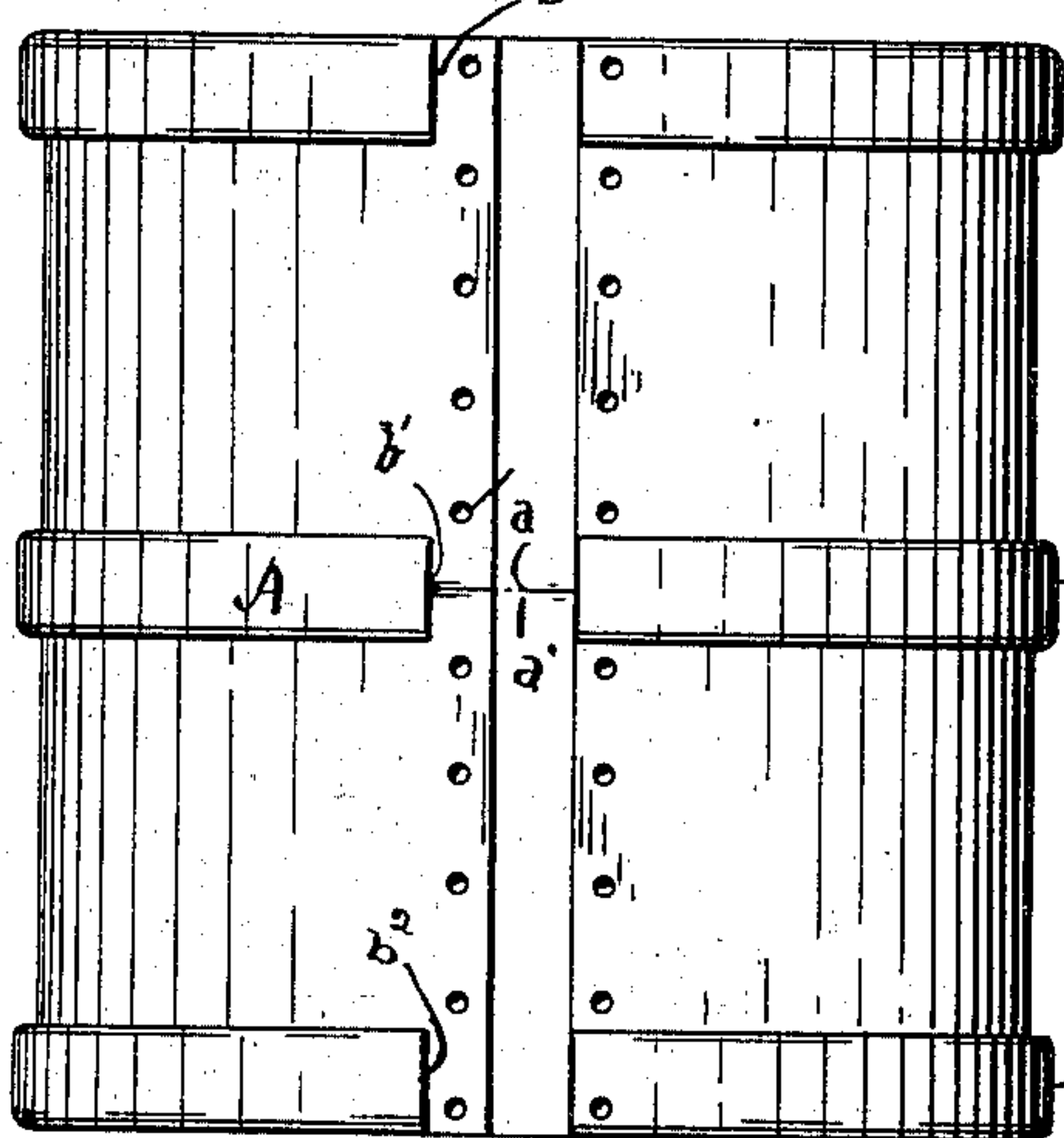
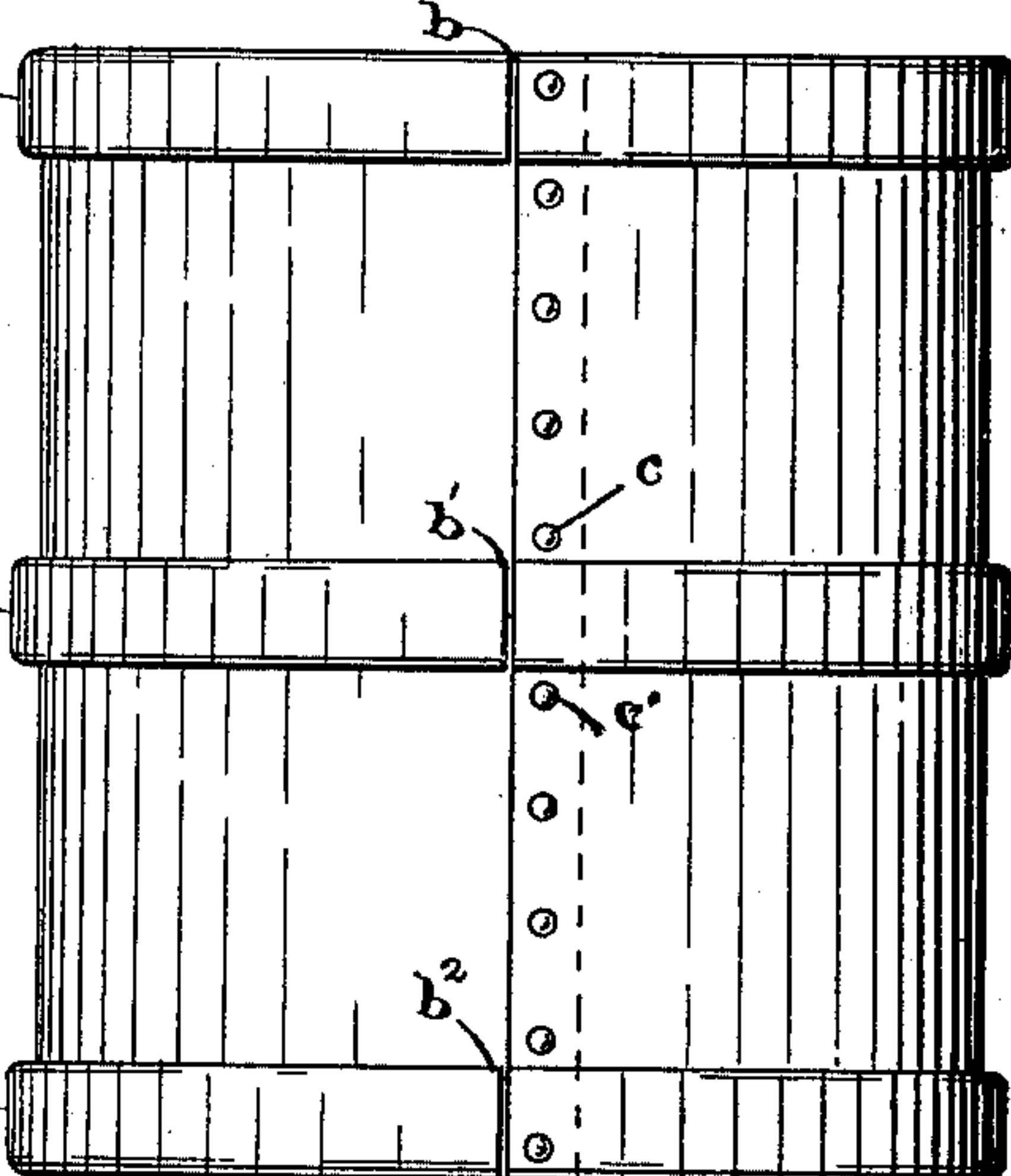


Fig. III



Witnesses:-

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UNITED STATES PATENT OFFICE.

WILLIAM G. AVERY, OF PAINESVILLE, OHIO.

REINFORCED CYLINDRICAL CASK.

SPECIFICATION forming part of Letters Patent No. 732,995, dated July 7, 1903.

Application filed February 9, 1903. Serial No. 142,567. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. AVERY, a citizen of the United States, residing at Painesville, in the county of Lake and State of Ohio, have invented certain new and useful Improvements in Reinforced Cylindrical Casks; and I do hereby 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 pertains to make and use the same.

My invention relates to sheet-metal casks, such as are more especially designed for receiving and containing products of manufacture either in a heated or cold condition and which are designed for a special rough handling.

The objects of my invention are to construct the body of the cask integral with stiffening hoops or bands, the whole being so joined together that when completed the same is practically smooth in its interior and uniform on its exterior, the parts being so constructed and arranged that it is impossible to contort the cask by rough handling or to loosen any of the parts.

My invention consists in the peculiar construction of the cask as a whole embodying certain characteristics, which will be hereinafter fully set forth, and especially pointed out in the claim.

In the drawings, Figure I is a vertical sectional view taken through a cask embodying my invention. Fig. II illustrates a cask bent into approximate shape and as it appears before the meeting edges are fastened together. Fig. III illustrates the body of a cask complete after it has been riveted or after the meeting edges have been secured.

Inasmuch as my invention relates to the construction of the body of the cask, I have not illustrated the bottom or top, if any were used, in connection with it, leaving this as a matter of convenience or option.

In forming a cask according to my invention I take a blank of metal of such shape that in one cross-section it will be equivalent in length to the circumference of the cask at every part. The other cross-section of the blank will equal the height of the cask plus the amount of material required for the fold

or reinforcements hereinafter set forth. The blank is first folded, as illustrated at A, Fig. I, by bending the metal approximately at right angles, thence approximately parallel with the body, thence again at right angles and in an opposite parallel direction, and repeating this fold in the inverse order, thus forming a reinforcement or hook, as at A. The fold is so formed that it is of uniform width and thickness and in such a manner that its edges $a a'$ will meet. There may be one, two, or more of these folds or reinforcements or hooks formed, as illustrated. For the top or bottom, or for either, the folds B C are made to extend outward, thence parallel, inward, and again parallel with the body of the metal, thus giving the same uniformity and thickness to the upper and lower edge, or either of them, as the reinforcements or hooks A, and providing three thicknesses of metal at all these parts. After these folds have been made while the sheet is in a flat condition the sheet is passed through a press, preferably a roller-press, and the reinforcements are pressed tightly and uniformly to shape.

In putting the cask together it is desirable that the outer surface should be as far as possible uniform or even at its meeting edges, and to attain this I have found it desirable to cut away a portion of the reinforcement, as at $b b' b^2$, thus allowing the edges to meet practically flush. This cutting away of the reinforcements A, B, and C may be done in the blank before the folds are made, which is preferable, or they may be subsequently cut away if found desirable or necessary.

In riveting the meeting edges of the cask I find that it is desirable that rivets be placed in close juxtaposition, as at $c c'$, to the hoops A. The placing of the rivets in close juxtaposition to the hoops keeps the joint at this part more firm and prevents distortion of the cask, which would result in an outward projection of the hoop at this point, making an uneven and undesirable construction. This, however, is a preferable way of constructing the cask and may be varied from, as other means may be provided for securing the meeting edges of the cask.

I am aware that attempts have been made to strengthen containers by providing a se-

ries of corrugations in the form of circles embracing the container; but this I do not claim, as the same is a much inferior article and would not sustain the rough usage to
5 which casks or containers of my type are subjected.

I am also aware that attempts have been made to form containers into shape by folding them or folding the metal upon itself in
10 a vertical direction; but a container of this type would not in any manner meet the requirements of a cask formed according to my invention, as the strength or reinforcement would not be in the direction required and
15 the forming of the upper edge of the container smooth is impractical to attain.

What I claim is—

In a cask of the type set forth comprising reinforcements in the form of hoops made integral with the body of the cask by bending 20 the metal upon itself, said reinforcements or hoops being cut away for a distance beyond one edge of the blank substantially as, and for the purpose set forth.

Signed at Cleveland, in the county of Cuyahoga and State of Ohio, this 30th day of January, 1903. 25

WILLIAM G. AVERY.

Witnesses:

E. B. DONNELLY,
A. L. LORD.