

(No Model.)

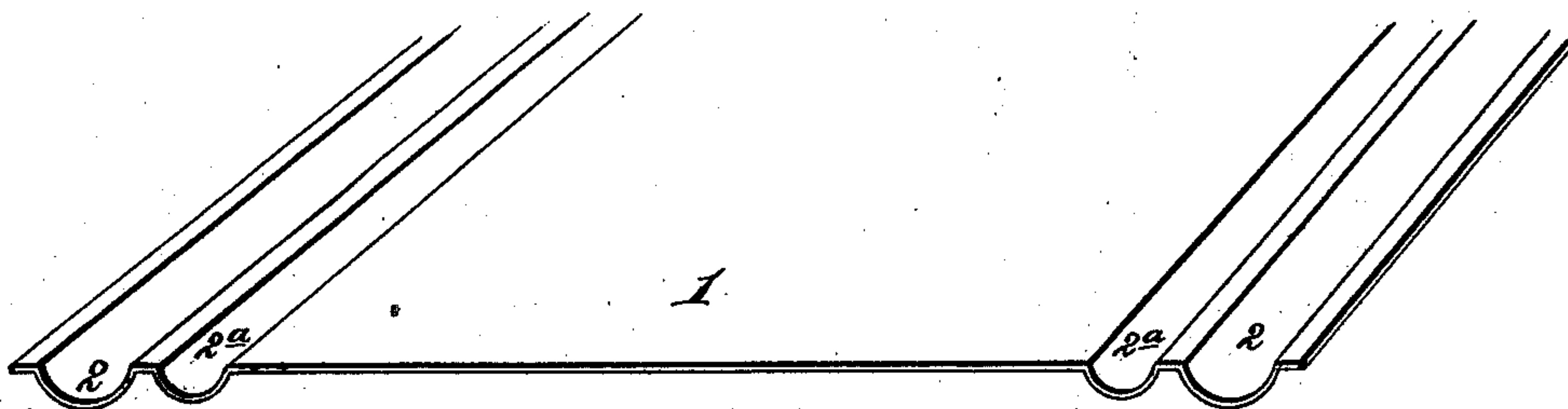
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METALLIC MEASURING VESSEL.

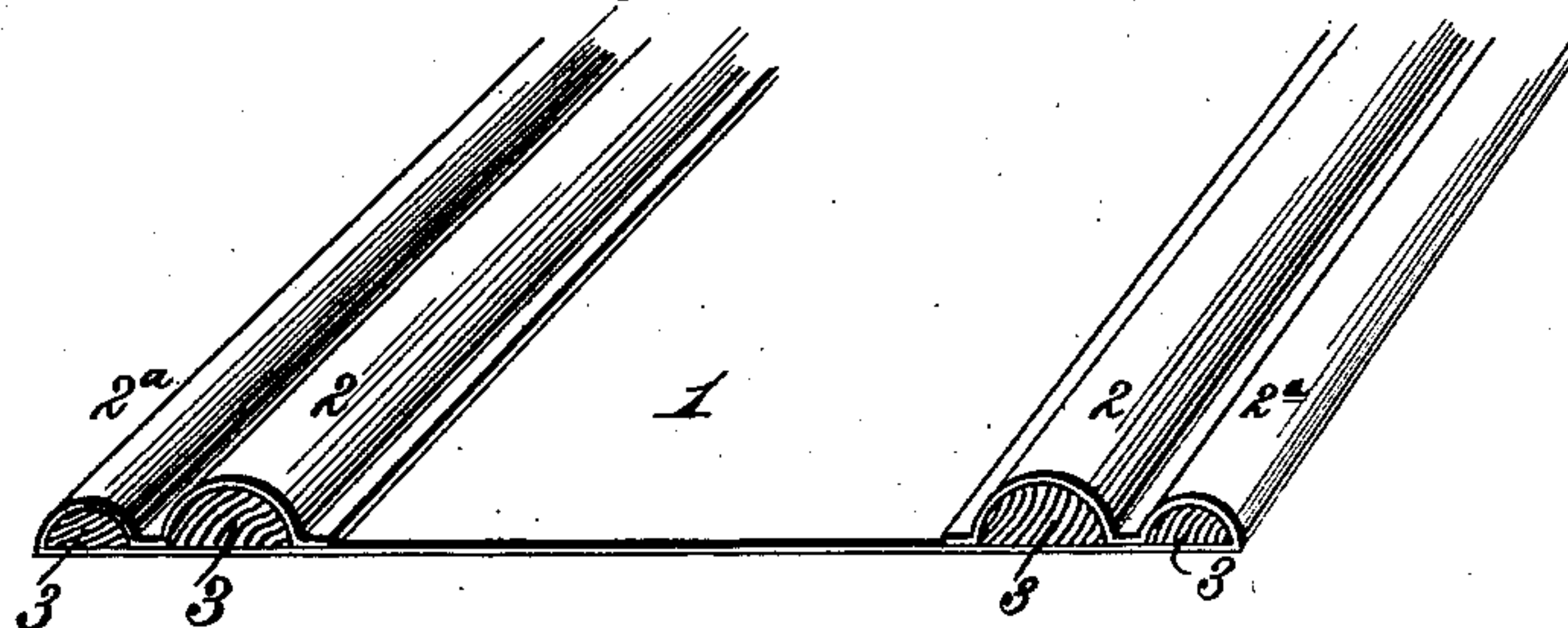
No. 370,681.

Patented Sept. 27, 1887.

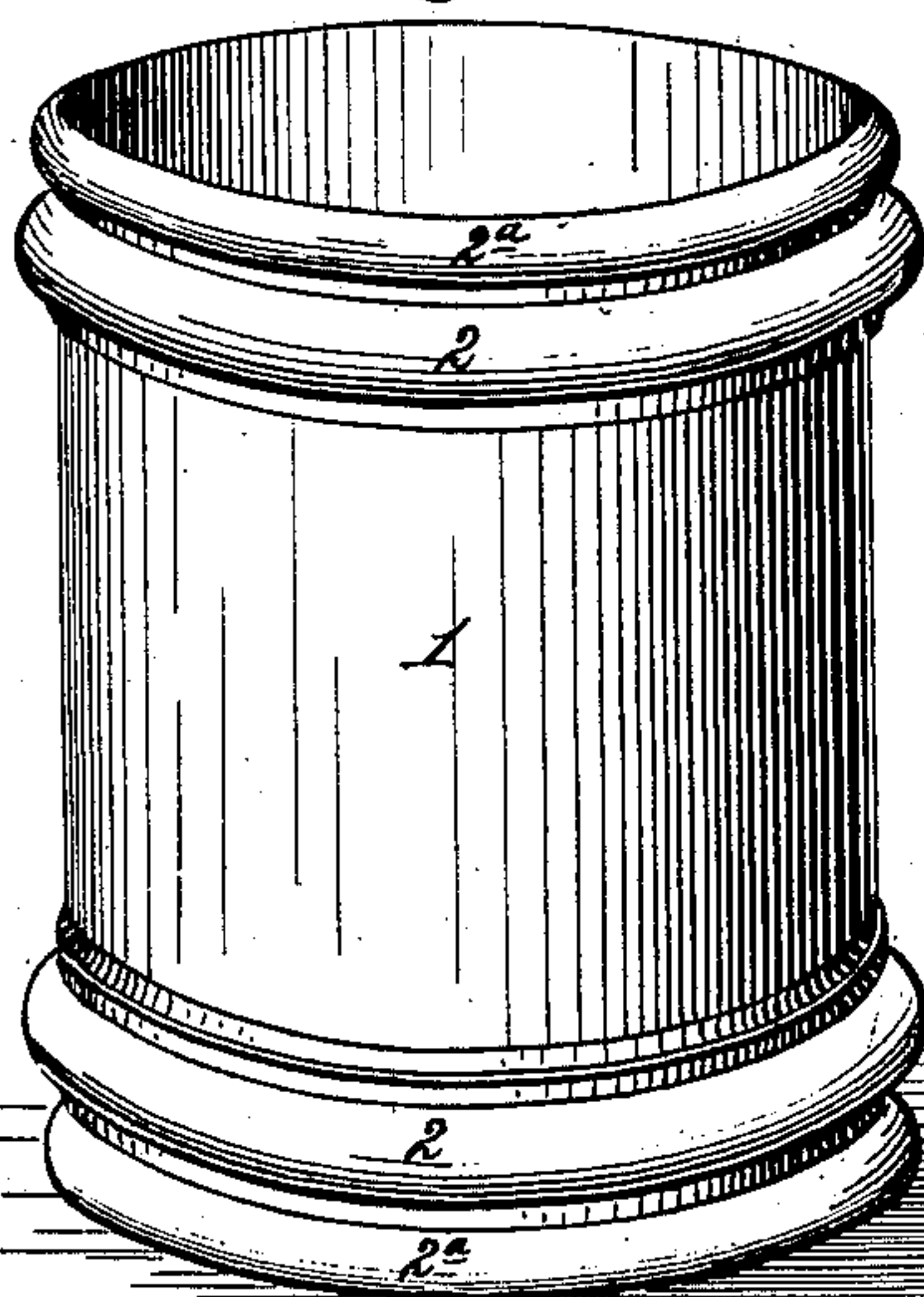
*Fig. 1.*



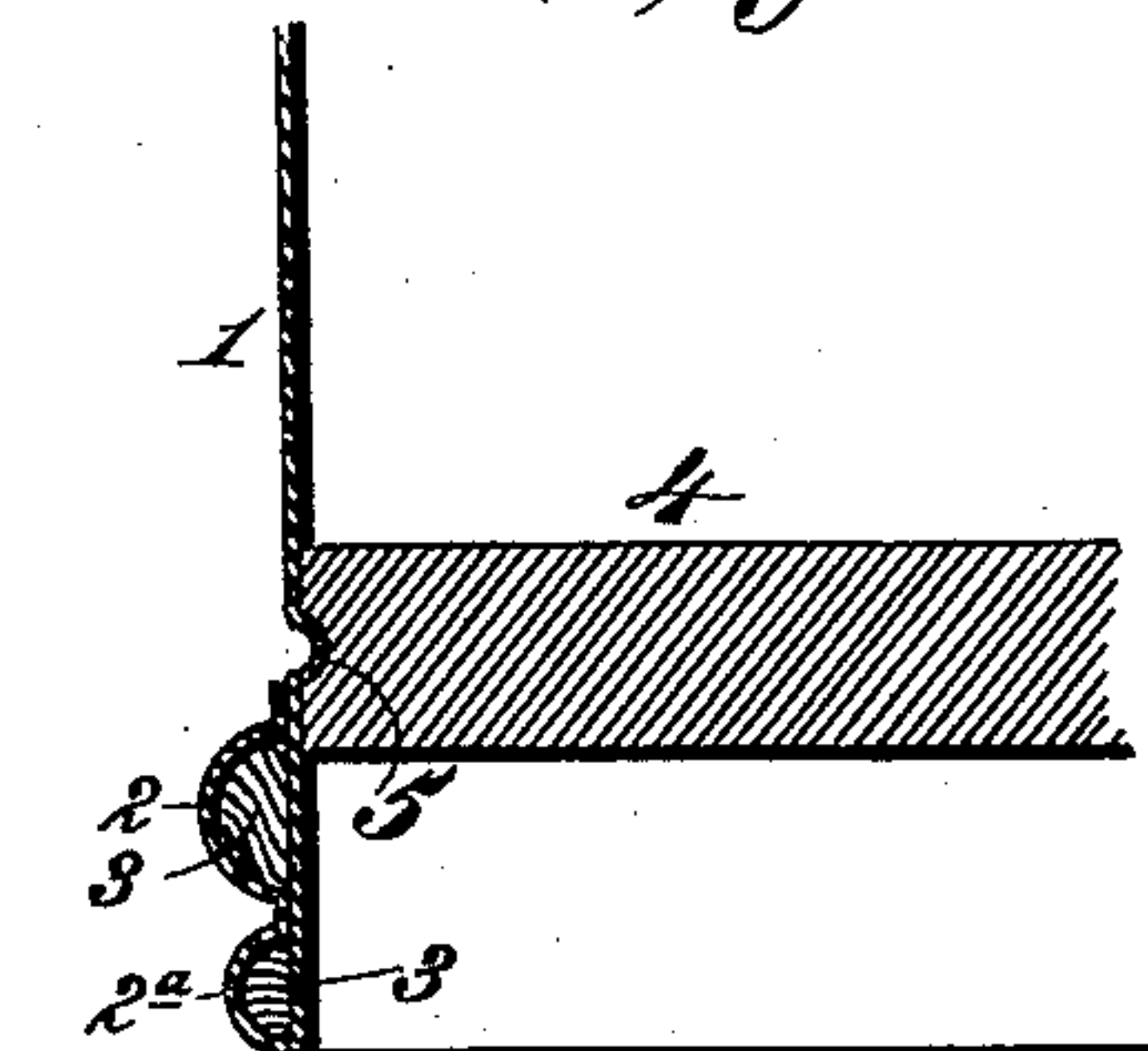
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses.

*Phil Gratt.*

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# UNITED STATES PATENT OFFICE.

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## METALLIC MEASURING-VESSEL.

SPECIFICATION forming part of Letters Patent No. 370,681, dated September 27, 1887.

Application filed March 8, 1887. Serial No. 230,118. (No model.)

*To all whom it may concern:*

Be it known that we, BENJAMIN F. CALDWELL and WILLIAM F. PETERSON, citizens of the United States, residing at Wheeling, in the  
5 the county of Ohio and State of West Virginia, have invented new and useful Improvements in Metallic Measuring-Vessels, of which the following is a specification.

The object of our invention is to provide a  
10 novel and improved construction for the cylindrical bodies of sheet-metal measuring-vessels, whereby the strength, finish, and durability of the measure are greatly improved without increasing the expense of manufac-  
15 ture.

The invention consists of the several novel features of construction and combination of parts, hereinafter fully set forth, and definitely pointed out in the claims following this de-  
20 scription.

Referring to the accompanying drawings, Figure 1 is a perspective view of a metallic sheet of the kind used in the manufacture of measures after receiving its marginal corru-  
25 gations. Fig. 2 is a similar view showing the sheet after its corrugated or beaded portions are folded over upon the body portion. Fig. 3 is a perspective showing the vessel formed of the metallic sheet and a bottom inserted.  
30 Fig. 4 is a partial section showing the manner of inserting and fastening the bottom.

In the said drawings, the reference-numeral 1 designates a flat sheet of metal of the kind suitable for the manufacture of metallic meas-  
35 uring-vessels. Said sheet may be of any desired length and of a width somewhat greater than the depth of the finished vessel. In the marginal portions of said sheet are formed corrugations or beads 2 2<sup>a</sup>, produced by suit-  
40 able rolls, the convex faces of said ribs projecting from that face of the flat sheet which forms the interior of the finished measure.

The corrugated portions are then folded over and down upon the body or main portion of the  
45 plate, as shown in Fig. 2, the line of fold being preferably located just within and adjacent to the inner and smaller head, 2<sup>a</sup>. The sheet thus formed is now bent into cylindrical shape by means of suitable rolls, or in any  
50 other convenient manner, and the ends of the plate are united in the ordinary way.

In order to strengthen and support the cor-  
rugations or beads, we insert therein, while the sheet is in the form shown in Fig. 2, strips  
3, formed of wood or other material, and of 55 such shape as to fill the space between the wall of the bead and the body of the plate. When the sheet is bent into cylindrical form, these filling-strips bend with it and form loops, which not only impart great additional strength 60 to the vessel, but support the beads and prevent dinting.

The bottom 4 is inserted after the cylindri-  
cal body is formed. It is of wood or other suitable material and has a diameter which 65 fits the measure. A circumferential groove, 5, is formed in its edge, and after it has been inserted and adjusted at the proper point the metal of the body part just above the beaded portion is swaged inward to fill the groove. 70

If rolls are employed to bend the plate into cylindrical form, they are grooved to receive the beads 2 and 2<sup>a</sup> and prevent the latter from being flattened.

By our invention we provide a measure the 75 body of which is made of a single piece of metal having a perfectly-smooth inner surface, with the corrugations or beads on the outside only, and provided with a solid support with  
80 in such beads.

Having thus described our invention, what we claim is—

1. The metallic measuring-vessel consisting of the cylindrical body 1, having in its mar-  
85 gins the corrugations or beads 2 2<sup>a</sup>, bent over and down upon the body portion, substantially as described.

2. The metallic measuring-vessel consisting of sheet 1, having its margins provided with beads or corrugations 2 and 2<sup>a</sup>, bent over and 90 down upon the body portion, the filling-strips 3 in said beads, and the bottom 4, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

BENJAMIN F. CALDWELL.  
WILLIAM F. PETERSON.

Witnesses:

HENRY FETZER,  
JOHN SUNDERLAND.