

W. M. KINNARD.

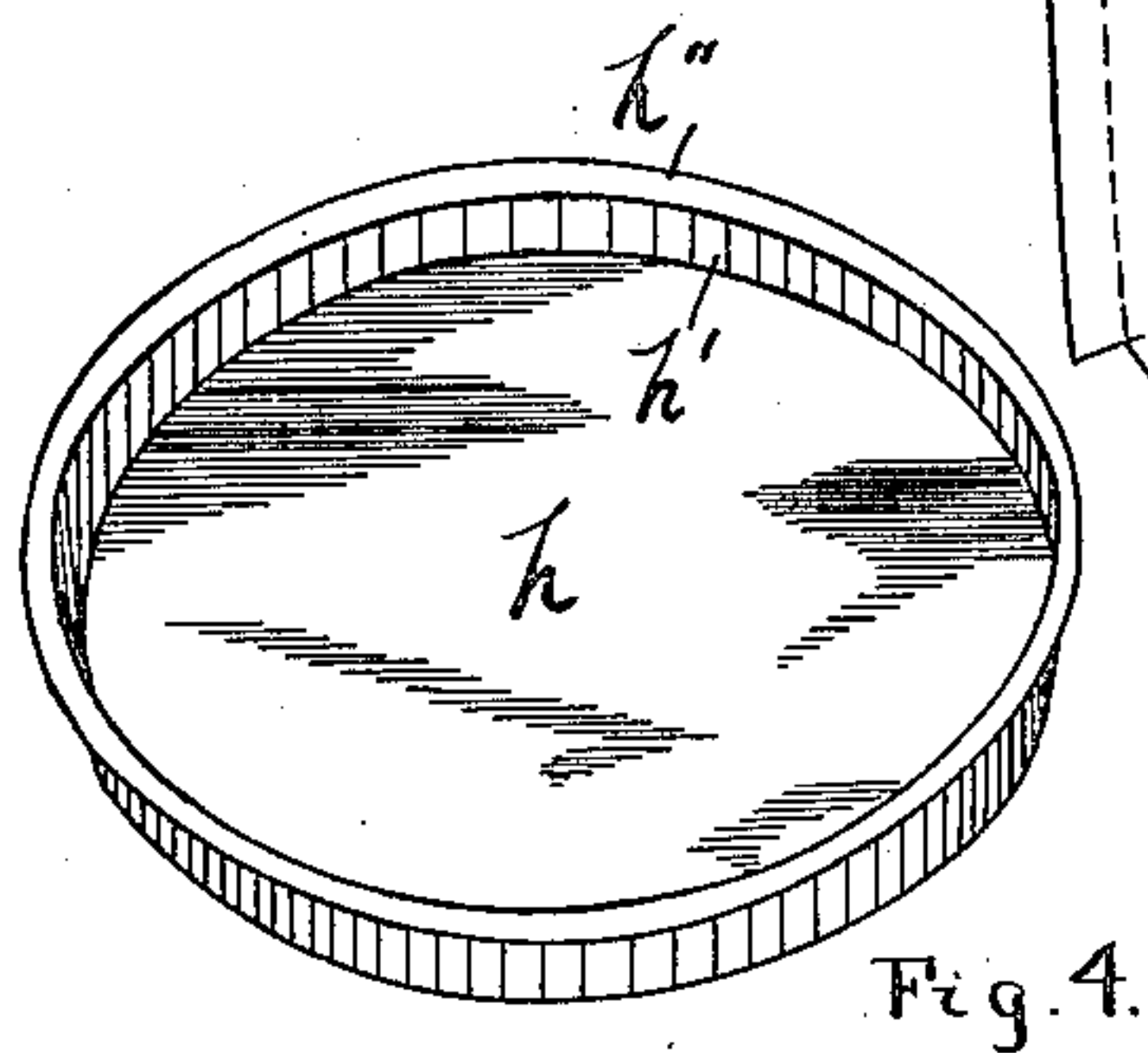
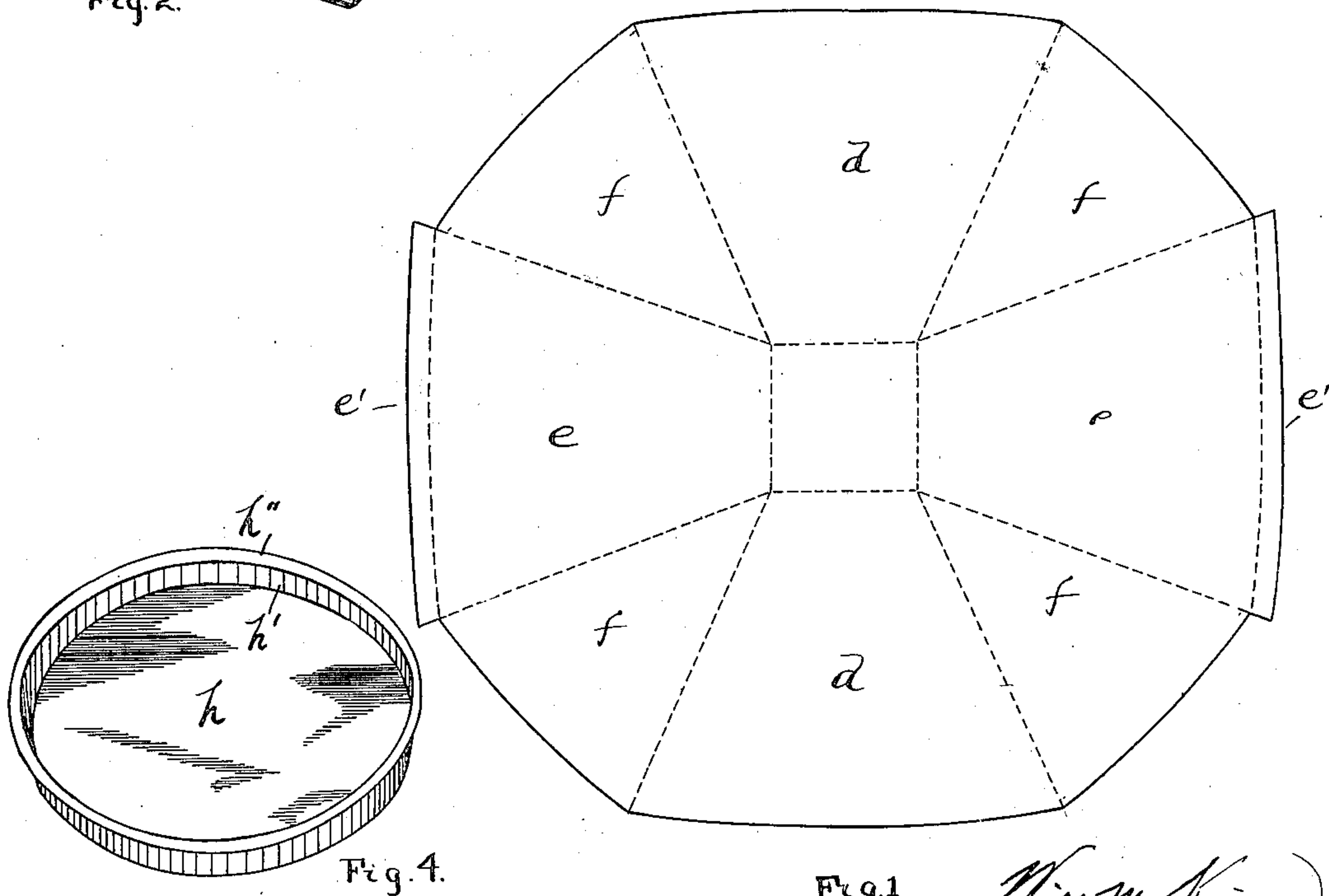
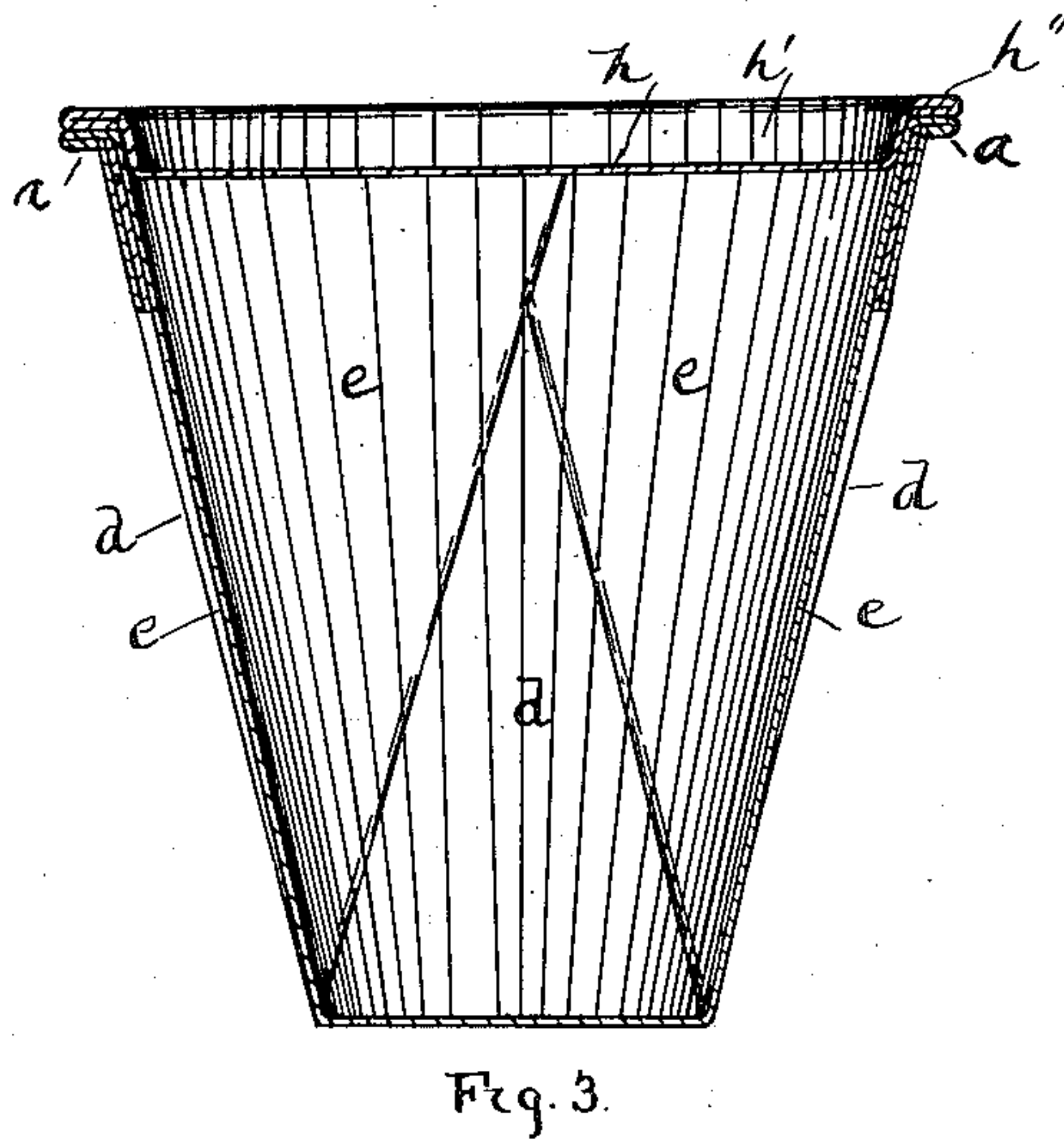
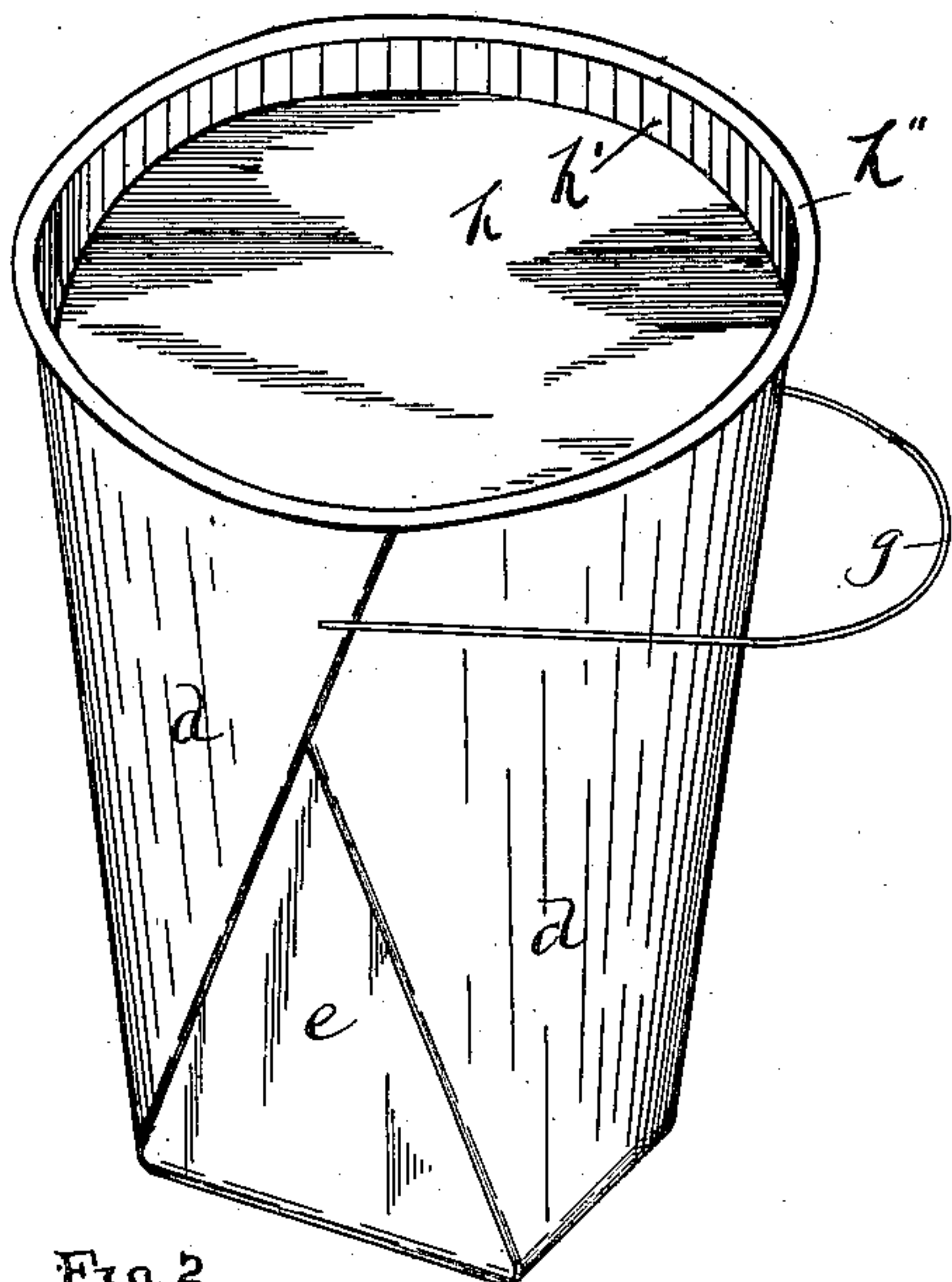
PAPER VESSEL.

APPLICATION FILED APR. 28, 1905.

917,456.

Patented Apr. 6, 1909.

2 SHEETS—SHEET 1.



Witnesses.
Islena Pritchard
C. M. Fahnestock

Fig. 1
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Inventor
By Alfred M. Allen
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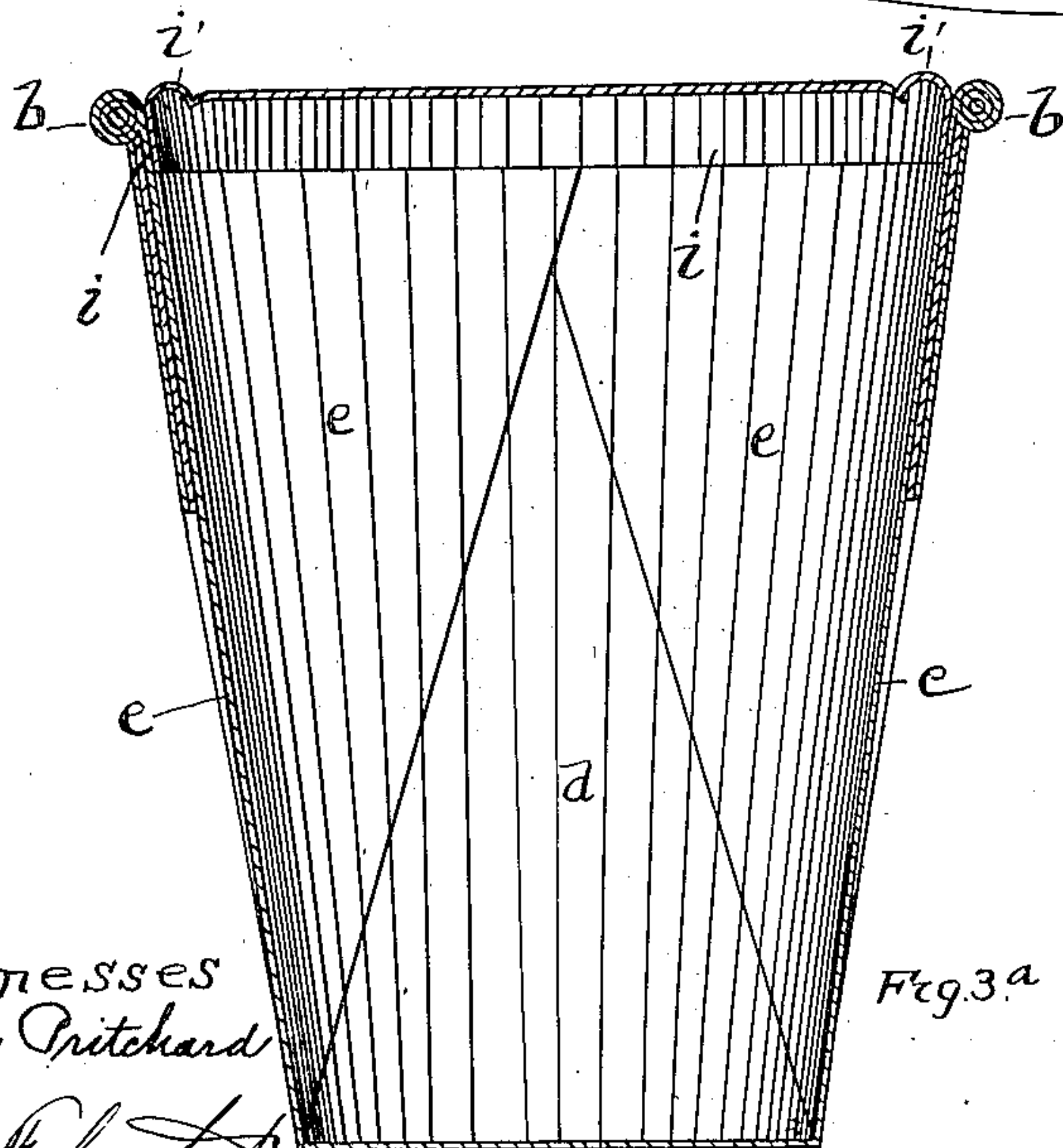
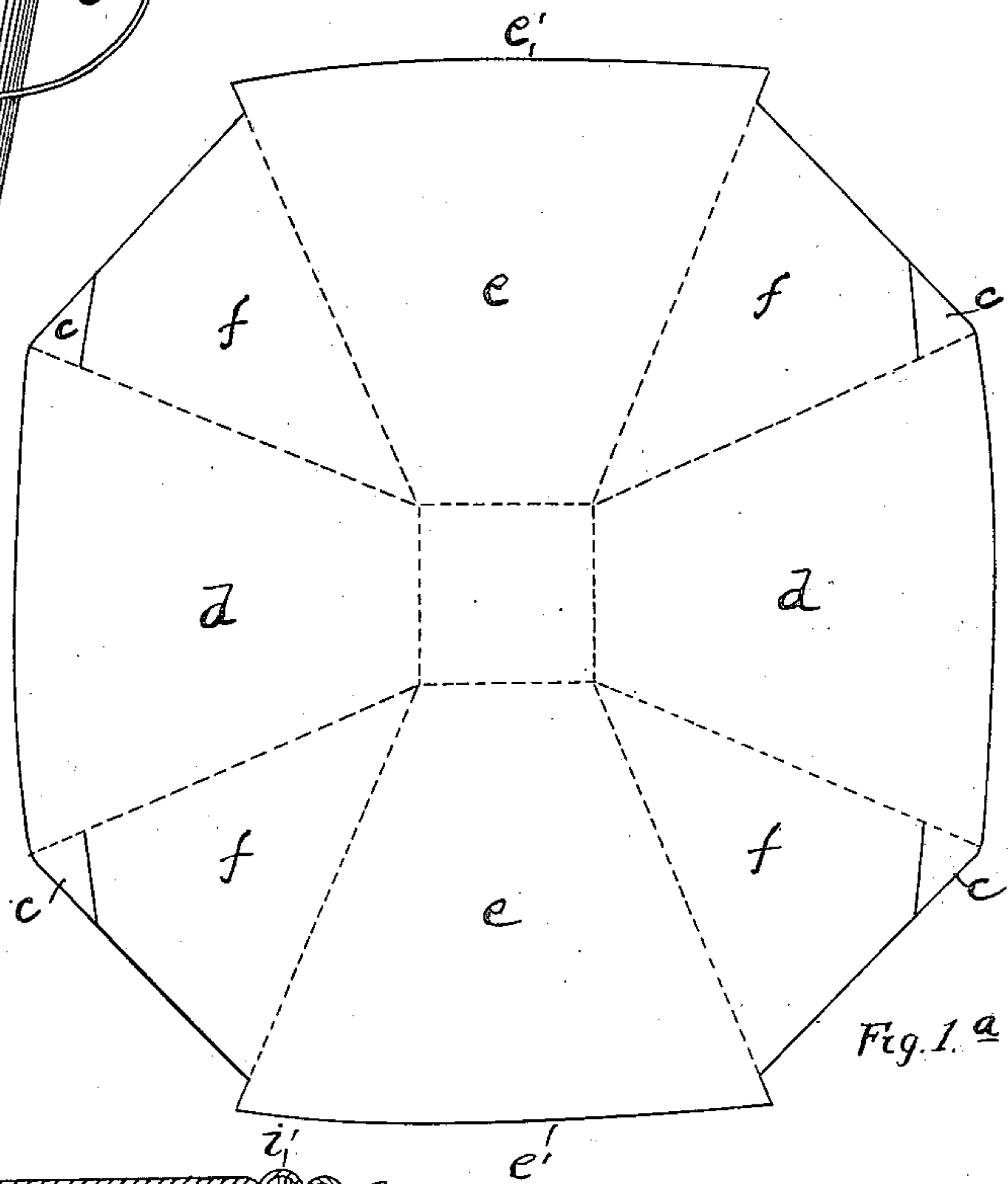
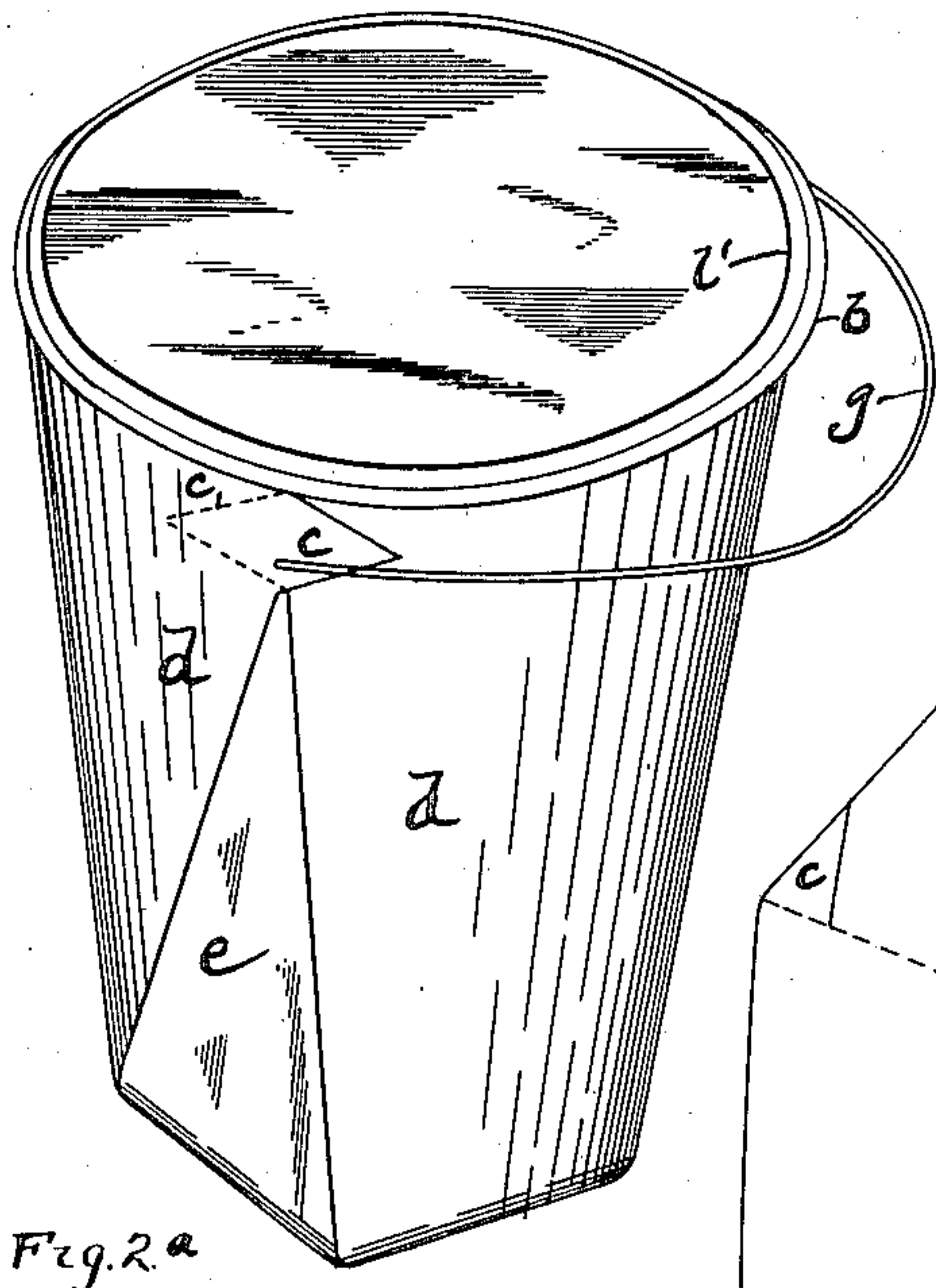
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2 SHEETS—SHEET 2.



Witnesses
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C. M. Schenck

W. M. Kinnard
Inventor
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UNITED STATES PATENT OFFICE.

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PAPER VESSEL.

No. 917,456.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed April 28, 1905. Serial No. 257,912.

To all whom it may concern:

Be it known that I, WILL M. KINNARD, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Paper Vessels; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in paper vessels.

The object of the invention is to provide from a single blank of paper a cylindrical vessel or a substantially cylindrical vessel, the walls of which rise or extend from a square bottom.

A further object of the invention is to provide a round or cylindrical vessel that is liquid proof, symmetrical in shape, inexpensive in construction, and durable and efficient for the purposes for which it is intended.

With the above ends in view, the blank from which the vessel is constructed, is so cut that when folded, the inside walls extend up beyond the top of the outside walls, and the so extending walls may be finished in a rolled or convoluted rim, or may be finished by flattening such rim, the latter adding more rigidity or strength to the rim of the vessel.

In connection with the vessels, the lids suitable for the same will also be described.

In a detailed description of the invention, reference is made to the accompanying drawings, of which—

Figures 1 and 1^a designate the blanks from which my improved vessel is constructed, there being a slight modification in the said blanks which will be hereinafter described. Figs. 2 and 2^a, show the vessel completed. Figs. 3 and 3^a, are vertical longitudinal sectional views of the vessel. Fig. 4, is a view of the lid or cover.

Preceding a detail description of the invention, it may be stated that the rim of the vessel as shown in Fig. 3 is as will be observed flattened as at *a*, while the rim of the vessel as shown in Fig. 3^a is rolled in the form of a convolute or bead as at *b*; otherwise

the vessels are substantially the same with perhaps one exception which consists of providing the upper ends of the outer walls of the vessel with overlapping tongues *c* which unite the upper adjacent edges of said walls and provide a space for the attachment of the ends of the bail.

The blank from which the vessel is constructed has two panels *d-d* which form the outer walls of the vessel, and two opposite panels *e-e* which form the inner or inclosed walls of the vessel. This blank is spun or rolled in a manner which causes the intervening folds *f-f* to lie adjacent and against the inner walls *e* and are inclosed by the outer walls *d*. The outer edges *e'* of said inner walls, it will be observed project beyond the edges of the walls *d*, and the intervening folds *f*, so that when the vessel is formed there is sufficient material projecting from the inner walls *e* for the formation of the bead or convolute *b* as shown in Fig. 3^a or for the flattened rim *a* as shown in Fig. 3. In either the construction, of the bead or convolute *b*, or the flattened rim *a*, the rim of the vessel so constructed is caused to extend over the upper edge of the outer walls of the vessel, and to hold the upper edges of both the inner and outer walls in rigid connection with each other. In the formation of the flattened rim *a* as shown in Fig. 3, this shape is given the rim or mouth of the vessel after it is first rolled as shown in Fig. 3^a. As hereinbefore stated, the flattening of the rim as at *a*, imparts to the mouth of the vessel a greater rigidity, though it has been found in practice that the beaded or convoluted edge of the vessel is sufficient to maintain the shape of the vessel for all ordinary purposes. The tongues *c* it will be observed project from the opposite edges of the outer wall *d*, and when the walls are brought together in the formation of the vessel as in Fig. 2^a, one of these tongues lies beneath, while the other overlaps the said walls adjacent to the convoluted rim or the flattened rim. The tongues so projected are adhered to the inner and outer sides of the outer walls by any suitable adhesive substance, and there is thereby provided a suitable connection between the upper ends of the two outer walls which serves as an additional means for uniting the upper edge of the vessel, and

which also serves as means for the attachment of the bail —*g*— which is an ordinary form of bail.

The cover —*h*— as shown in Fig. 4, consists of a disk with an upturned flange *h'* with a laterally extending edge or flange *h''*. The cover so constructed may be given additional strength by the application of an inner reinforcing strip applied to the interior side of the flange *h'*. Owing to the substantial conical shape of the vessel, the cover may enter the vessel a suitable distance to bring the flange *h''* in a position to extend over the mouth of the vessel as shown in Fig. 2. The natural elasticity of the mouth of the vessel is sufficient to maintain the cover in such position, while the over-projecting flange *h''* retards the possibility of the cover or lid entering too far within the mouth of the vessel.

Referring to the lid as shown in Fig. 3^a, this lid has a downwardly projecting flange —*i*— which joins the beaded rim *i'* at its circumference, the said beaded rim forming an annular shoulder which prevents the lid or cover from entering too far within the mouth of the vessel. When this form of lid is placed in position as shown in Fig. 3^a, it will be seen to lie flush with the top of the vessel.

Having thus described my invention, I claim:

1. A paper vessel constructed from a single blank of suitable paper material scored to form two outer walls, and two inner walls,

with a rectangular bottom, the outer walls overlapping to form a cylindrical top, and the two inner walls provided with short extensions to extend above the outer walls when the blank is folded to form a continuous inner rim, said rim being rolled and then subjected to pressure to form a horizontal flange for the top to hold the upper edges of both walls in rigid connection with each other, substantially as described.

2. A paper vessel constructed from a single blank of suitable paper material scored to form two outer walls, and two inner walls, with a rectangular bottom, the outer walls overlapping to form a cylindrical top, and the two inner walls provided with short extensions to extend above the outer walls when the blank is folded to form a continuous inner rim, said rim being rolled and then subjected to pressure to form a horizontal flange for the top to hold the upper edges of both walls in rigid connection with each other, and the two outer walls provided with tongues to overlap the upper adjacent outer edges of said walls to provide means for strengthening the vessel at the points of attachment for the bail, substantially as described.

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Witnesses:

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