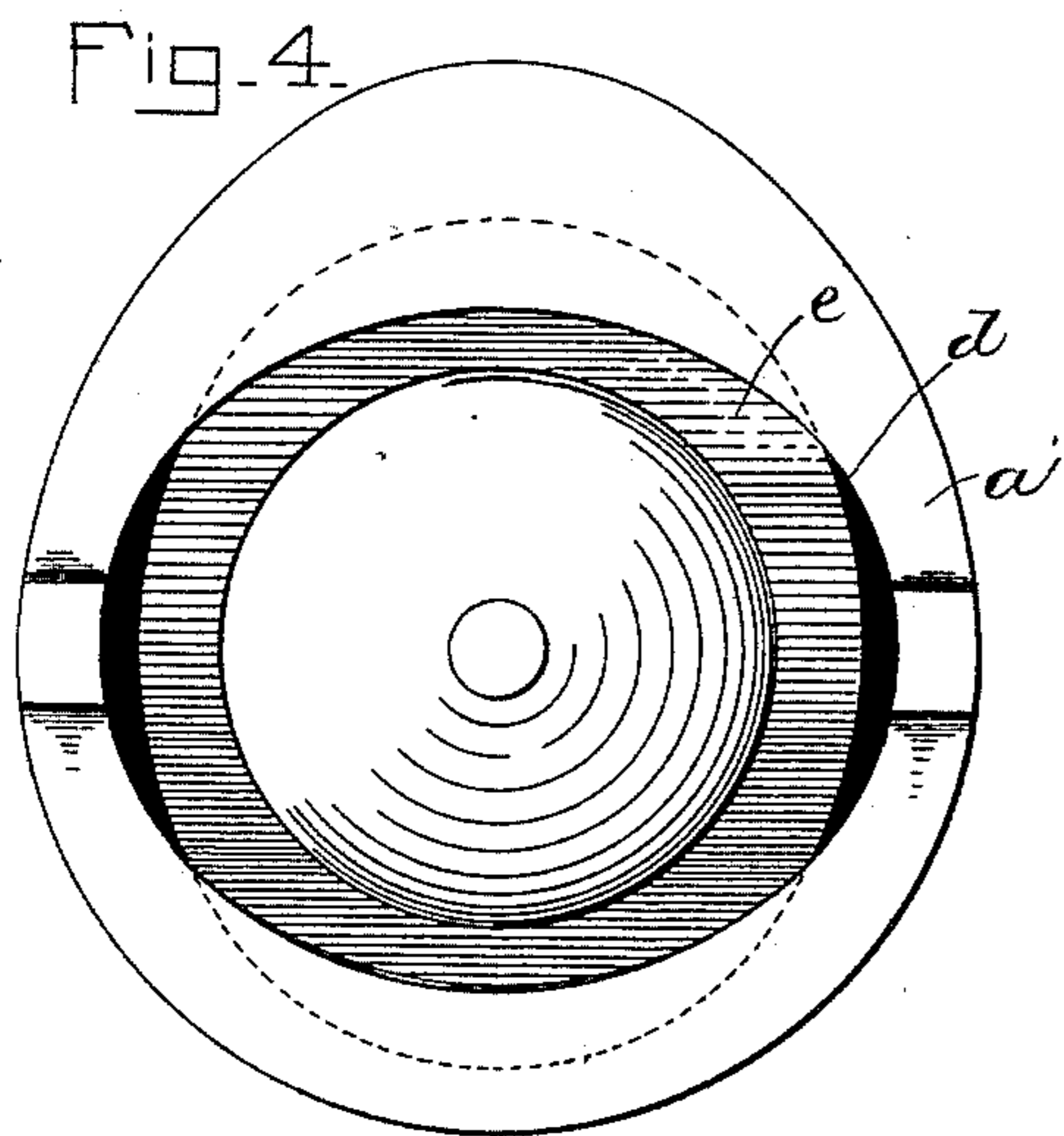
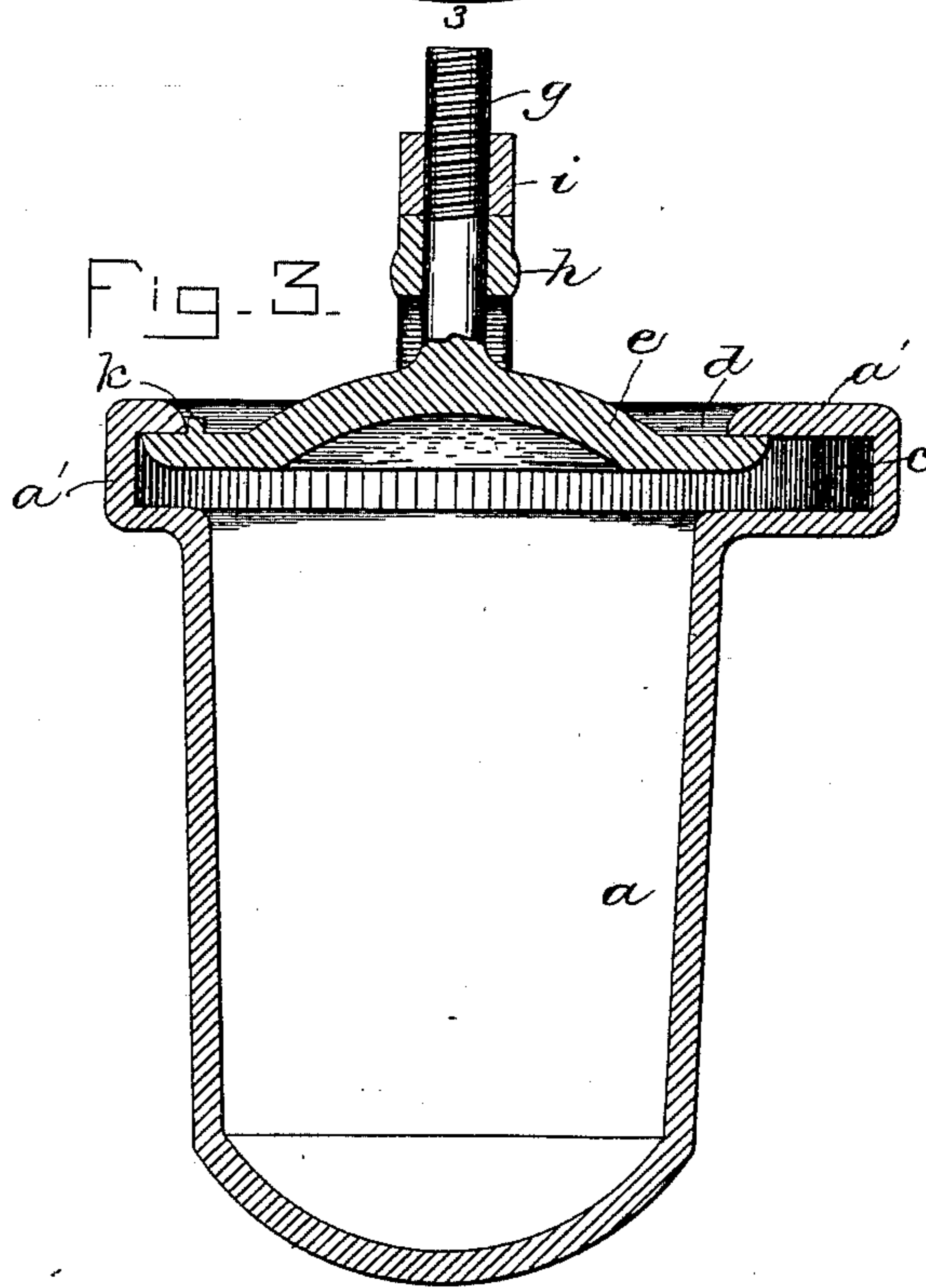
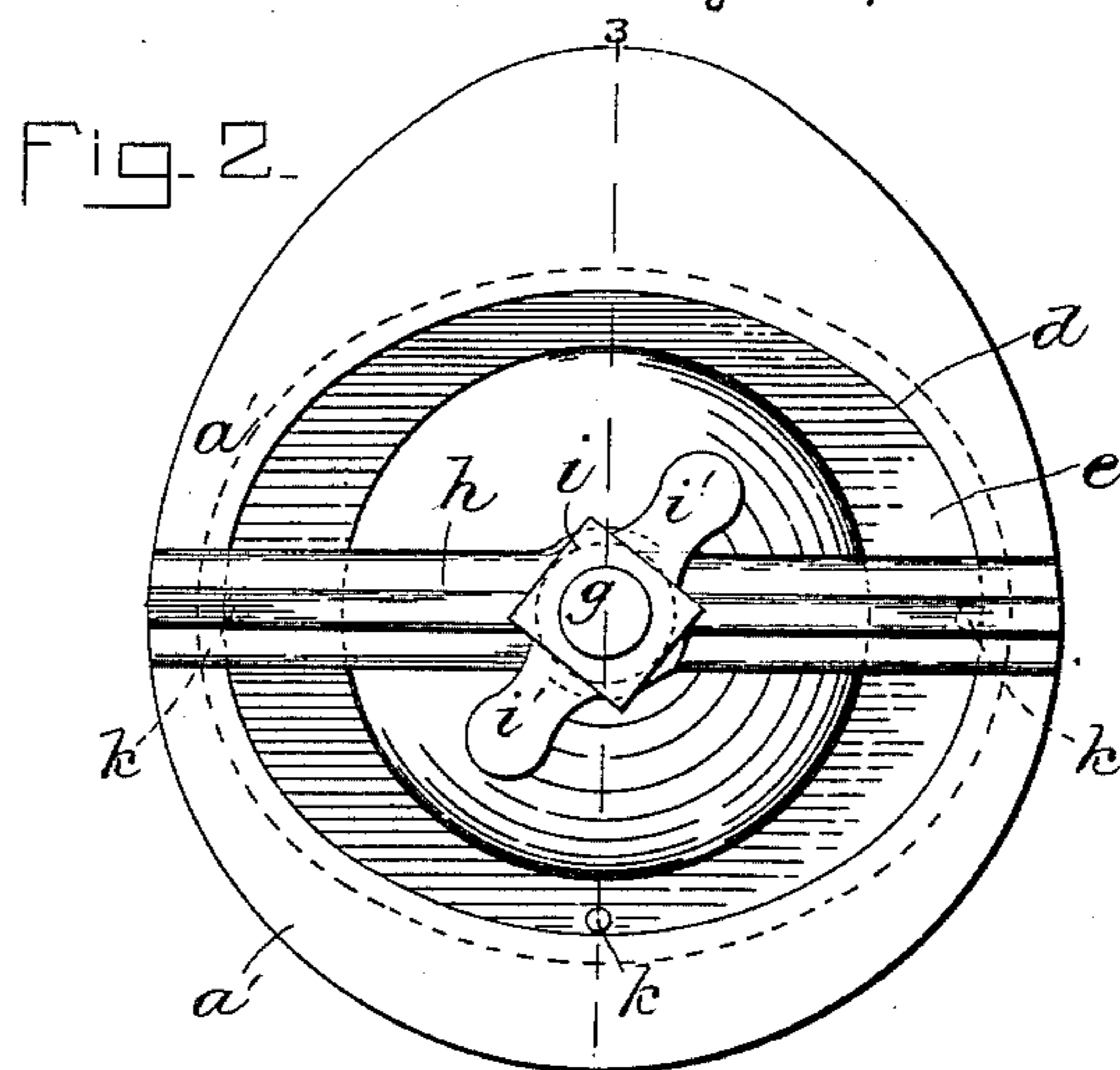
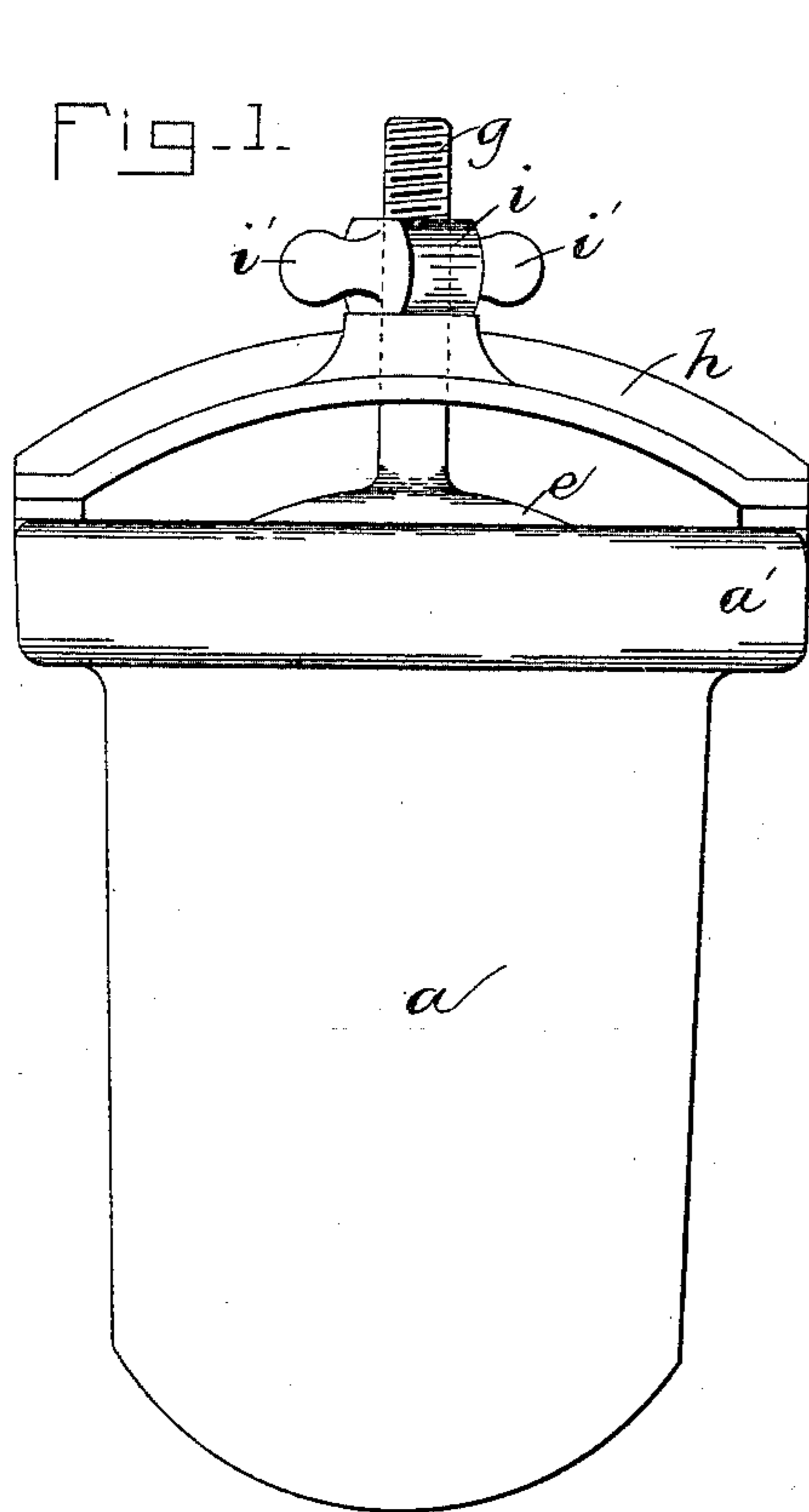


(No Model.)

J. E. QUINN.
DENTAL VULCANIZER.

No. 433,185.

Patented July 29, 1890.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES E. QUINN, OF BOSTON, MASSACHUSETTS.

DENTAL VULCANIZER.

SPECIFICATION forming part of Letters Patent No. 433,185, dated July 29, 1890.

Application filed January 6, 1890. Serial No. 336,081. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. QUINN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Dental Vulcanizers, of which the following is a specification.

This invention relates to receptacles used in vulcanizing rubber plates for artificial teeth; and it has for its object to provide a simple, strong, and compact receptacle adapted to hold small articles to be vulcanized, and to be closed steam-tight and kept closed by the pressure of the steam generated within the receptacle.

To these ends the invention consists in the improved apparatus, which I will now proceed to describe.

In the accompanying drawings, forming a part of this specification, Figure 1 represents the side elevation of my improved vulcanizer. Fig. 2 represents the top view of the same. Fig. 3 represents the section on line 3 3 of Fig. 2. Fig. 4 represents the top view illustrating the manner of applying the cover.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a strong metallic receptacle of cylindrical form, having at its upper end an enlargement which is of oval or elliptical form, as shown in Figs. 2 and 4, said enlargement containing the recess *c*, which is of greater area in horizontal section than the receptacle *a*.

In the top of the enlargement *a'* is a receiving-mouth *d*, through which the article to be vulcanized is inserted and removed, said mouth being of elliptical form, and being arranged so that its major axis or the direction of its greatest length is crosswise to the major axis of the elliptical enlargement *a'*, as shown in Figs. 2 and 4.

e represents the cover, which is of elliptical form, and is somewhat larger than the mouth *d*, so that when placed in the enlargement *a'* it will cover said mouth and have a bearing entirely around the same on the under surface of the top of the enlargement.

The cover *e* and the enlargement *a'* are relatively proportioned, so that when the cover is turned crosswise of the position which it occupies when covering the mouth it can be

readily inserted through the mouth by inclining it and moving first one of its ends into the recess *c* until the other end of the cover is in position to pass through the mouth, the cover being then in the position shown in Fig. 4, and then turning the cover half round to the position shown in Fig. 2, the cover being thus caused to come to a bearing on the under side of the top of the recess entirely around the mouth *d*.

It will be seen that by providing the receptacle with an elliptical enlargement *a'*, arranged as shown, I am enabled to make the mouth *d* as large as the capacity of the receptacle will require, and at the same time enable the said cover to bear against the seat above it, or, in other words, to close upwardly without making the receptacle *a* so large as to be unwieldy or inconvenient. It is desirable to make the receptacle as compact as may be to accommodate the articles usually vulcanized in dentists' offices, and at the same time it is desirable to arrange the cover of the receptacle so that it will come to a bearing on a seat above it and will be pressed against said seat by the pressure of the steam generated in the receptacle *a*. It will be seen that if the enlargement *a'*, with its recess *c*, were not provided, the mouth *d* would have to be considerably smaller than the cross-section of the receptacle *a*, in order that a bearing might be provided around said mouth for the upper surface of the cover.

The enlargement *a'* constitutes a flange to bear upon the upper portion of the jacket in which the receptacle *a* is held and heated during the vulcanizing process.

The cover *e* may be secured or pressed upwardly against its seat by any suitable means. I have here shown the cover provided with an upwardly projecting, screw-threaded stem *g* passing through the yoke *h*, the ends of which bear upon the upper surface of the enlargement *a'*, said stem having a nut *i* located above the yoke and provided with suitable handles *i'*, whereby it may be rotated. The rotation of the nut in one direction presses it against the yoke *h*, and thereby draws the stem *g* and cover *e* upwardly and presses the margin of the cover firmly against its seat.

The cover *e* is provided on its upper surface

with short studs *k k*, which are arranged to bear against the margin of the mouth *d* when the cover is in the proper position, as shown in Fig. 2.

5 I claim—

1. The improved dental vulcanizing apparatus, consisting of a receptacle *a*, having on its upper portion a recessed enlargement *a'*, the top of which is provided with an elliptical mouth, an elliptical cover formed to bear against the under side of the top of said enlargement entirely around the mouth, said enlargement being formed to permit a cover to be inserted in a position at right angles to its operative position and then turned to the position last named, and means for detachably securing said cover to the receptacle and pressing it against its seat, as set forth.

2. In a dental vulcanizer, the combination of the receptacle *a*, having the enlargement *a'*, containing a recess *c*, which surrounds the upper end of the receptacle, the top of said enlargement being provided with an elliptical mouth *d*, an elliptical cover *e*, formed to pass through said mouth when turned to one position and to entirely close the mouth when turned to another position, the studs *k* on said cover arranged to bear against the margin of the mouth as a guide to the oper-

ator in placing the cover in its operative position, and means for detachably securing said cover to the receptacle, as set forth. 30

3. In a dental vulcanizer, the combination of the receptacle having the enlargement *a'*, containing a recess *c*, which surrounds the upper end of the receptacle, the top of said enlargement being provided with an elliptical mouth, an elliptical cover *e*, formed to pass through said mouth when turned to one position and to entirely close the mouth when turned to another position, the studs *k* on said cover arranged to bear against the margin of the mouth as a guide to the operator in placing the cover in its operative position, a screw-threaded stem *g*, attached to the cover, the yoke *h*, formed to extend across the mouth and bear at its ends on the upper surface of the enlargement *a'*, and the nut *i*, engaged with said stem and arranged to bear on the yoke, as set forth. 45 50

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 1st day of January, A. D. 1890.

JAMES E. QUINN.

Witnesses:

C. F. BROWN,

W. C. RAMSAY.