

(No Model.)

3 Sheets—Sheet 1.

C. LAPIERRE.

BURNER FASTENING FOR TUBULAR LAMPS AND LANTERNS.

No. 440,896.

Patented Nov. 18, 1890.

Fig. 1.

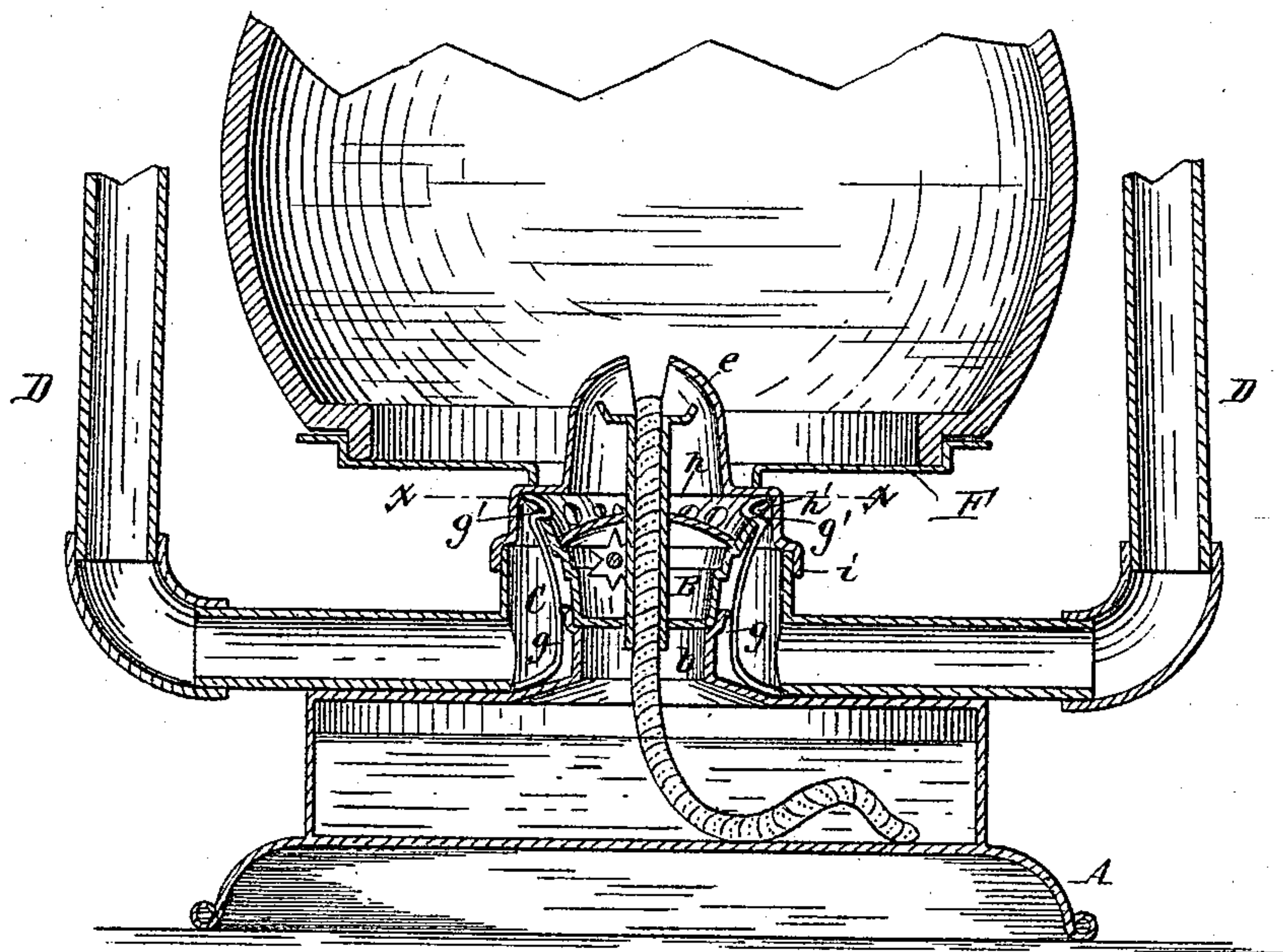


Fig. 2.

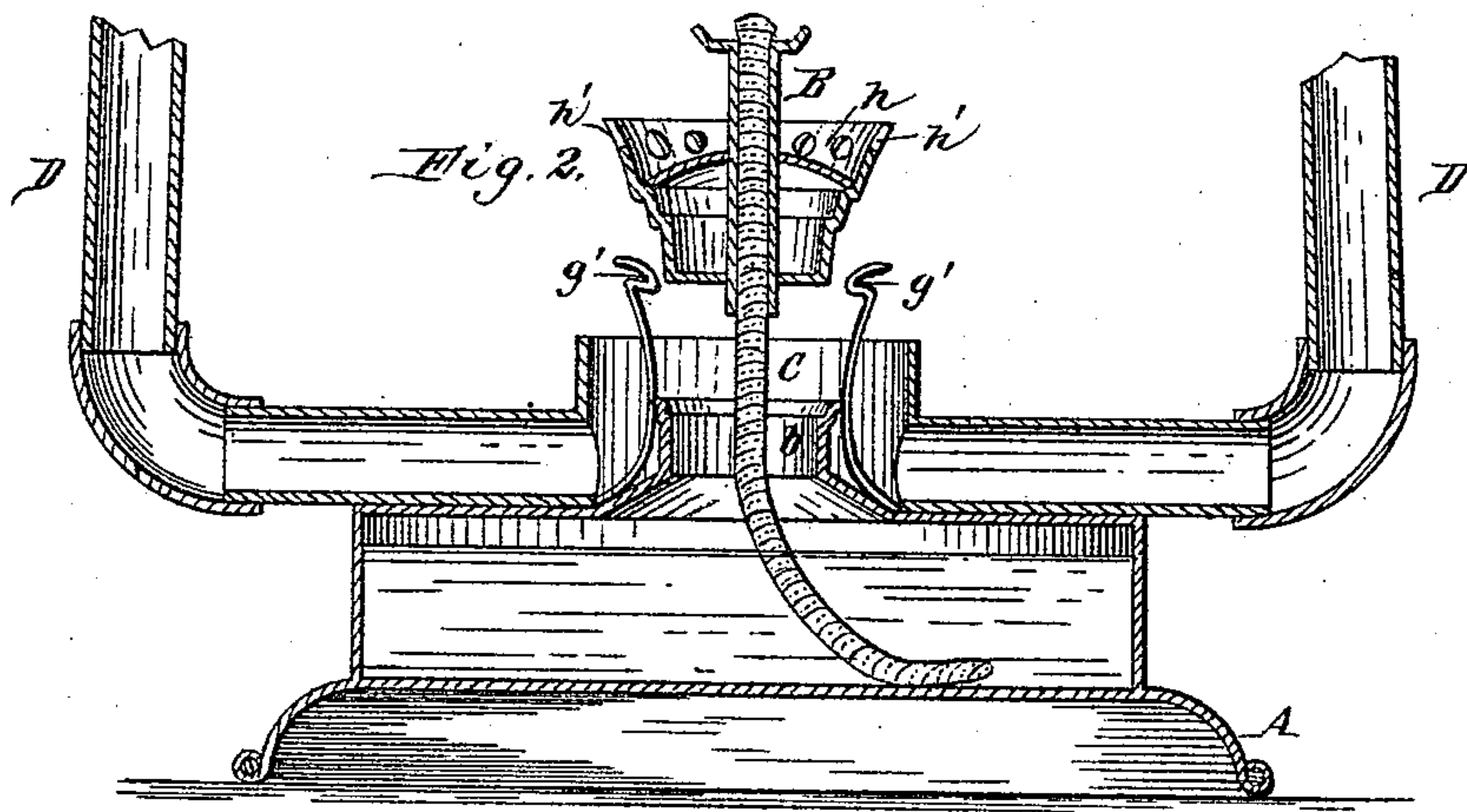


Fig. 3.

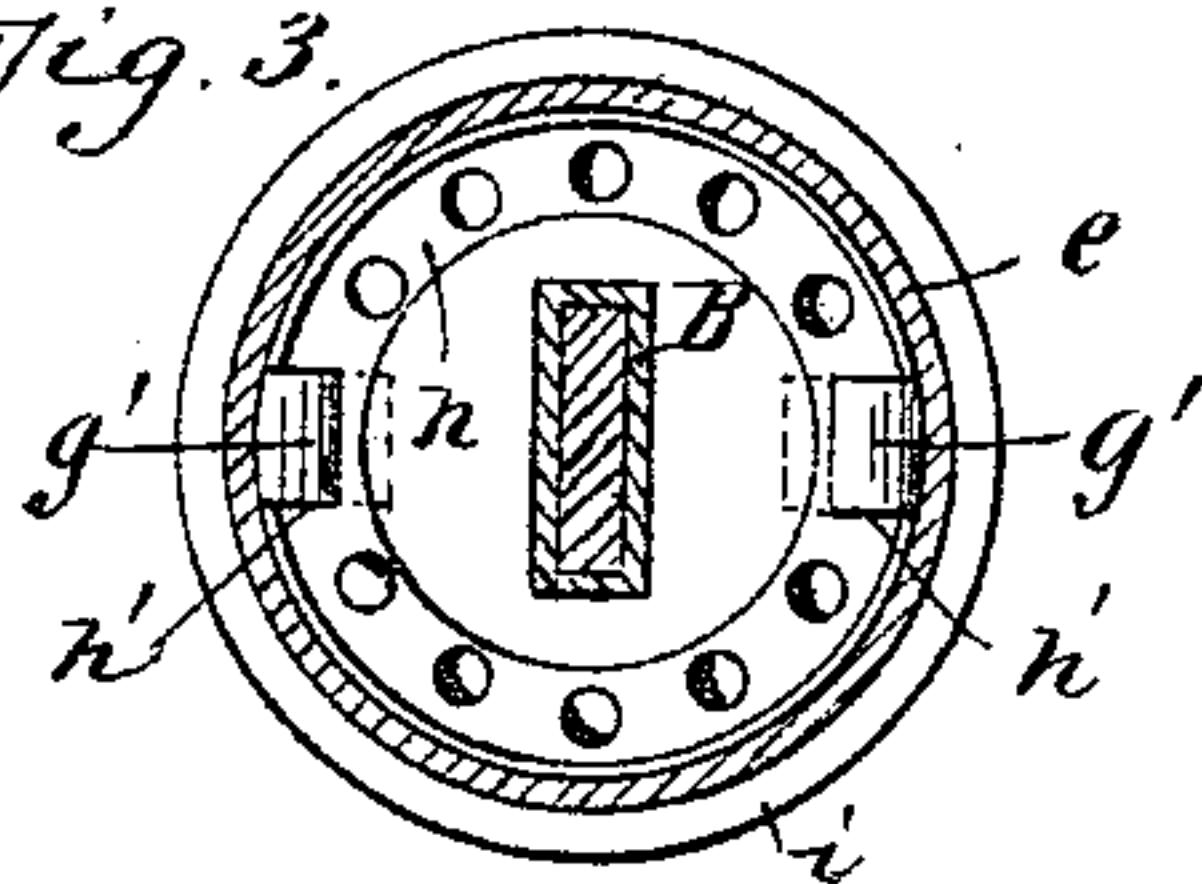
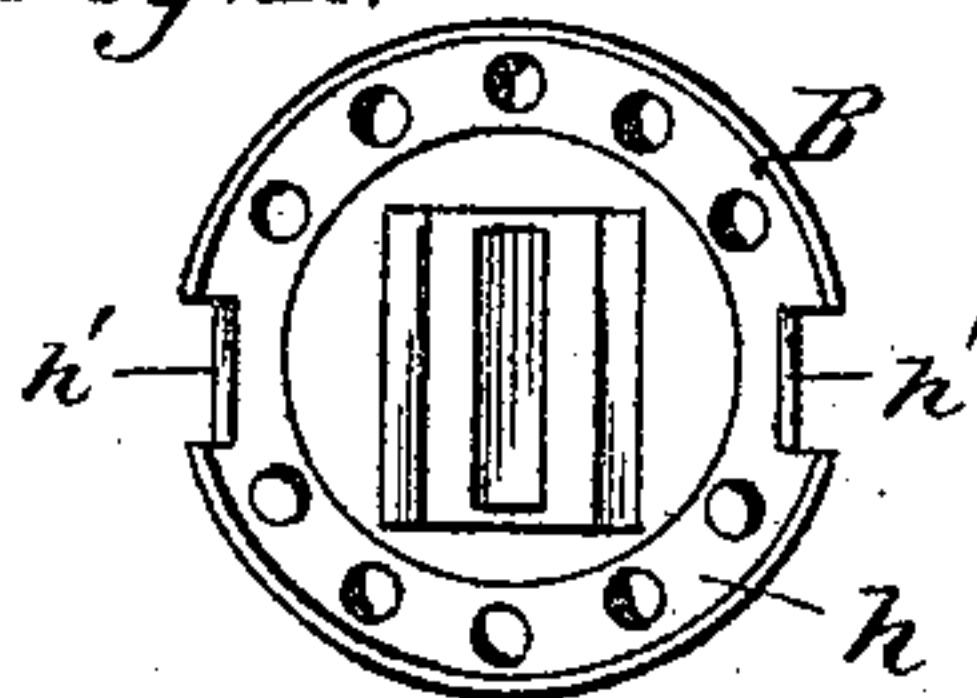


Fig. 4.



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Fig. 5.

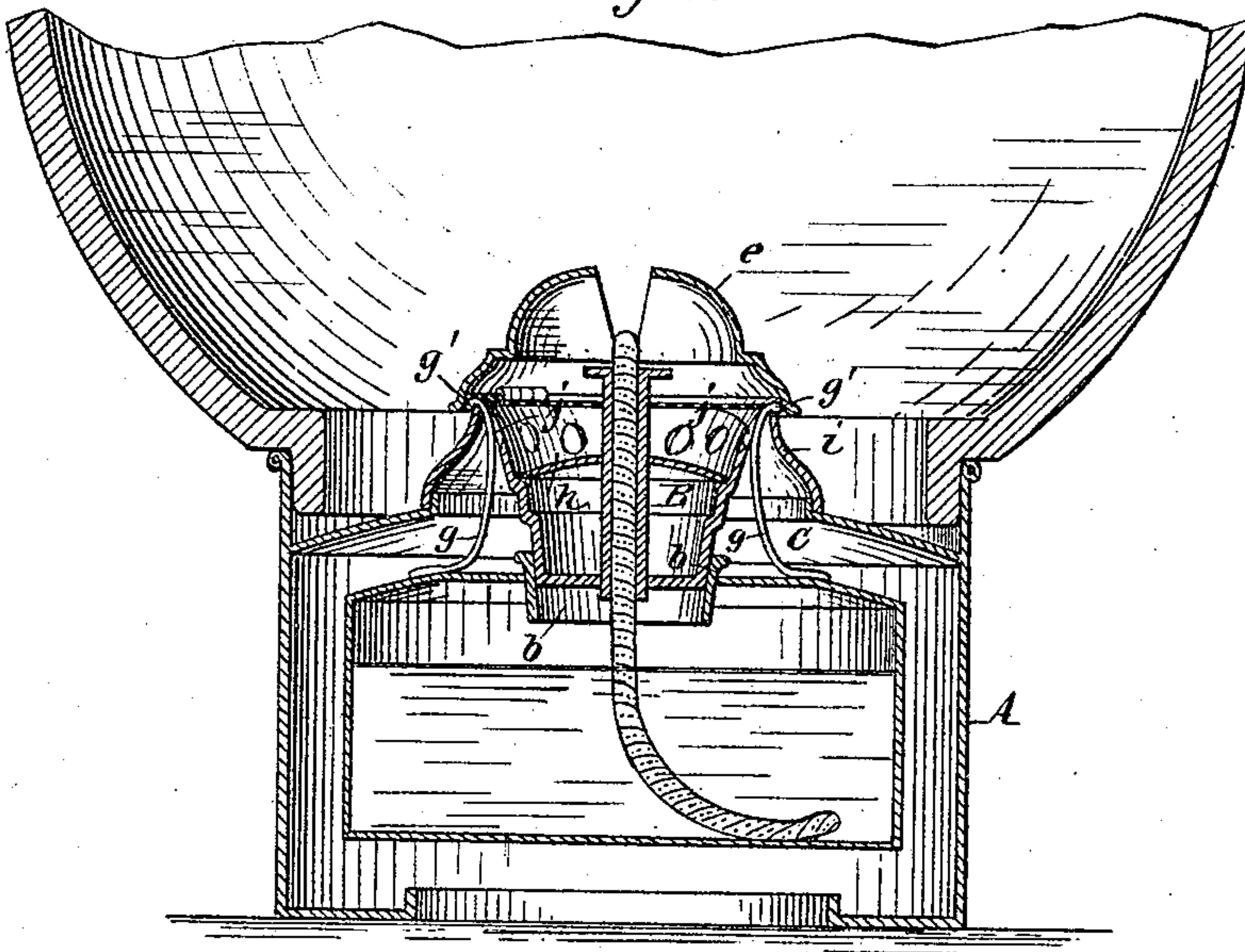


Fig. 6.

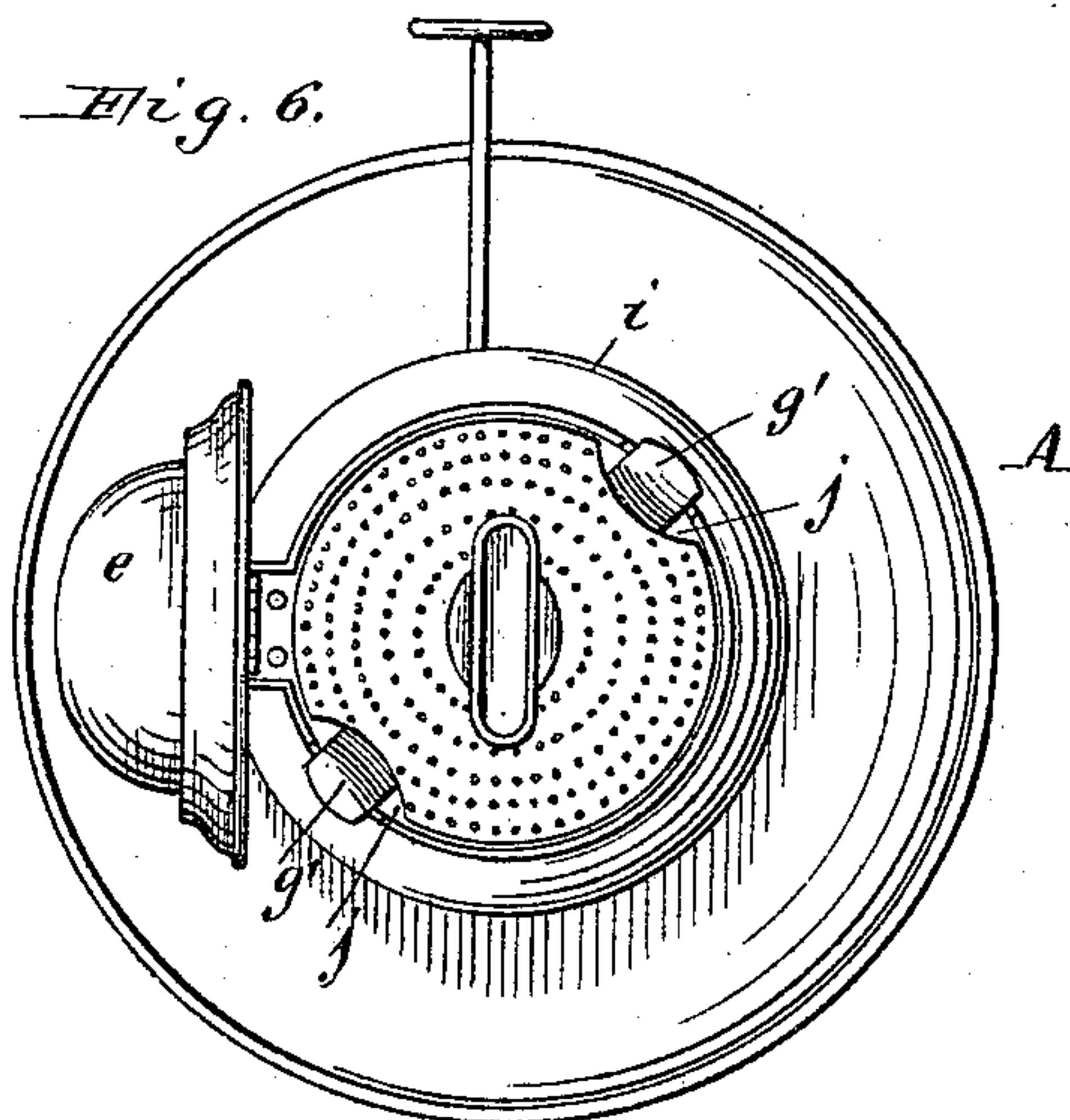
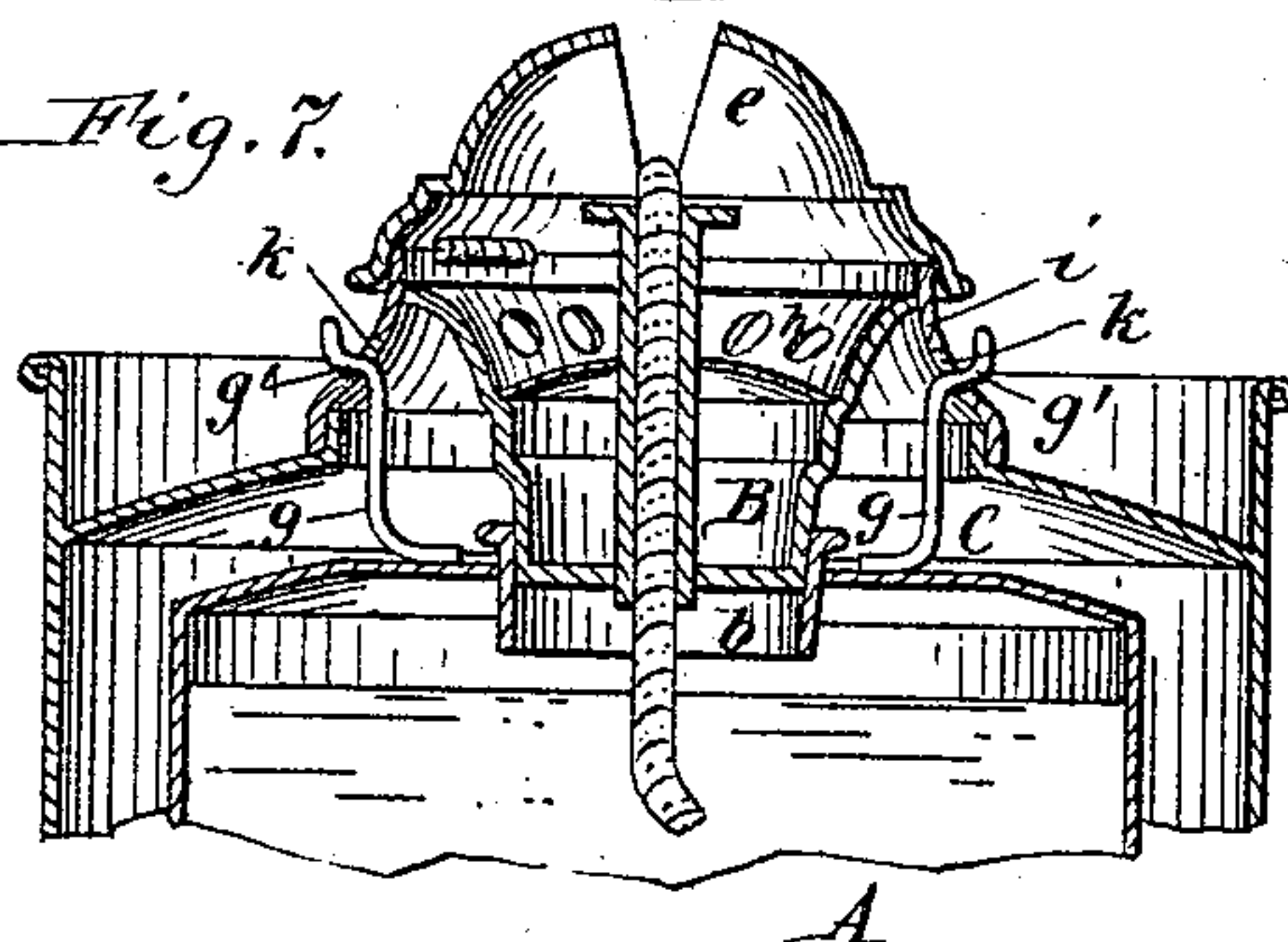


Fig. 7.



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Fig. 8.

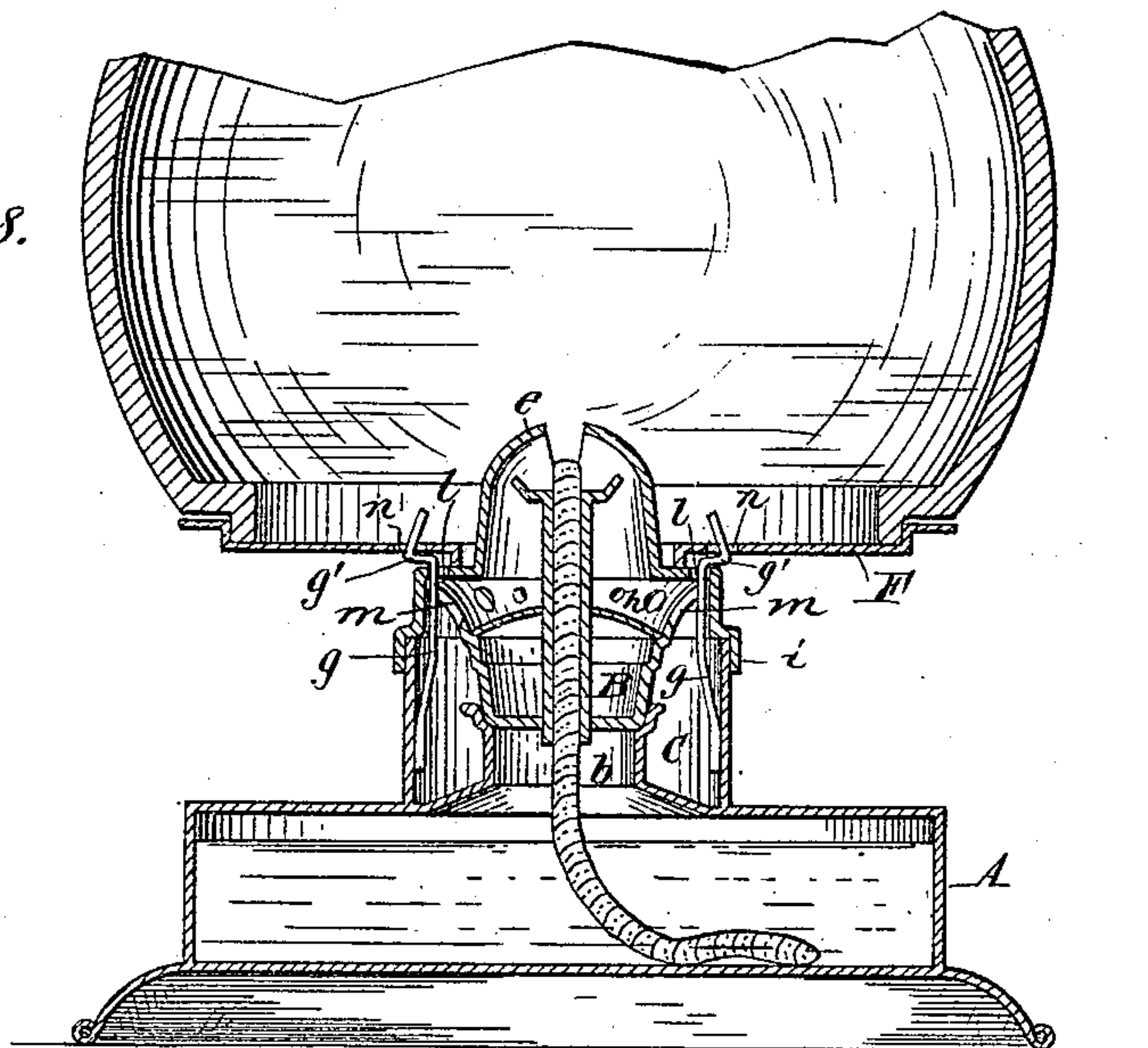


Fig. 9.

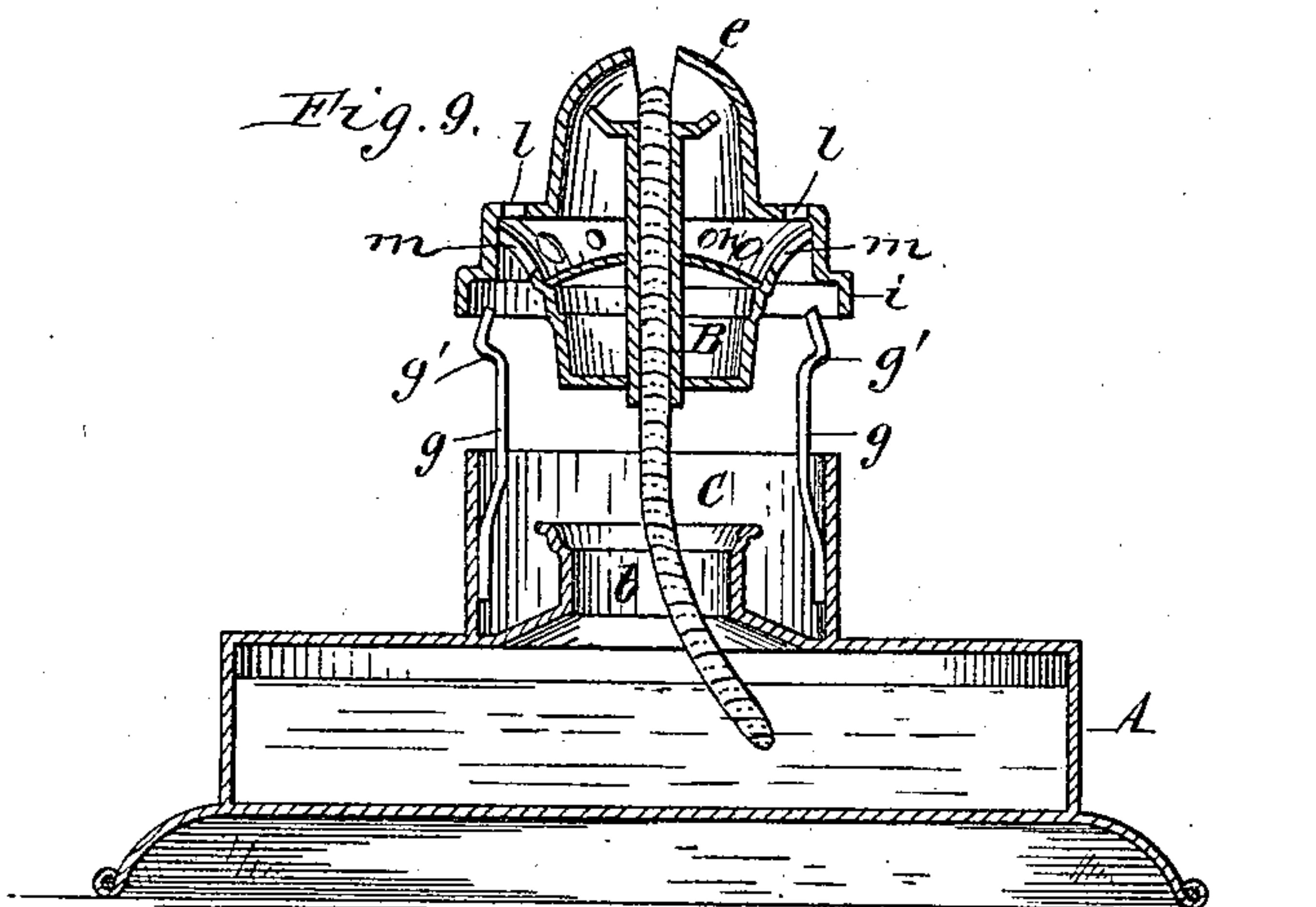
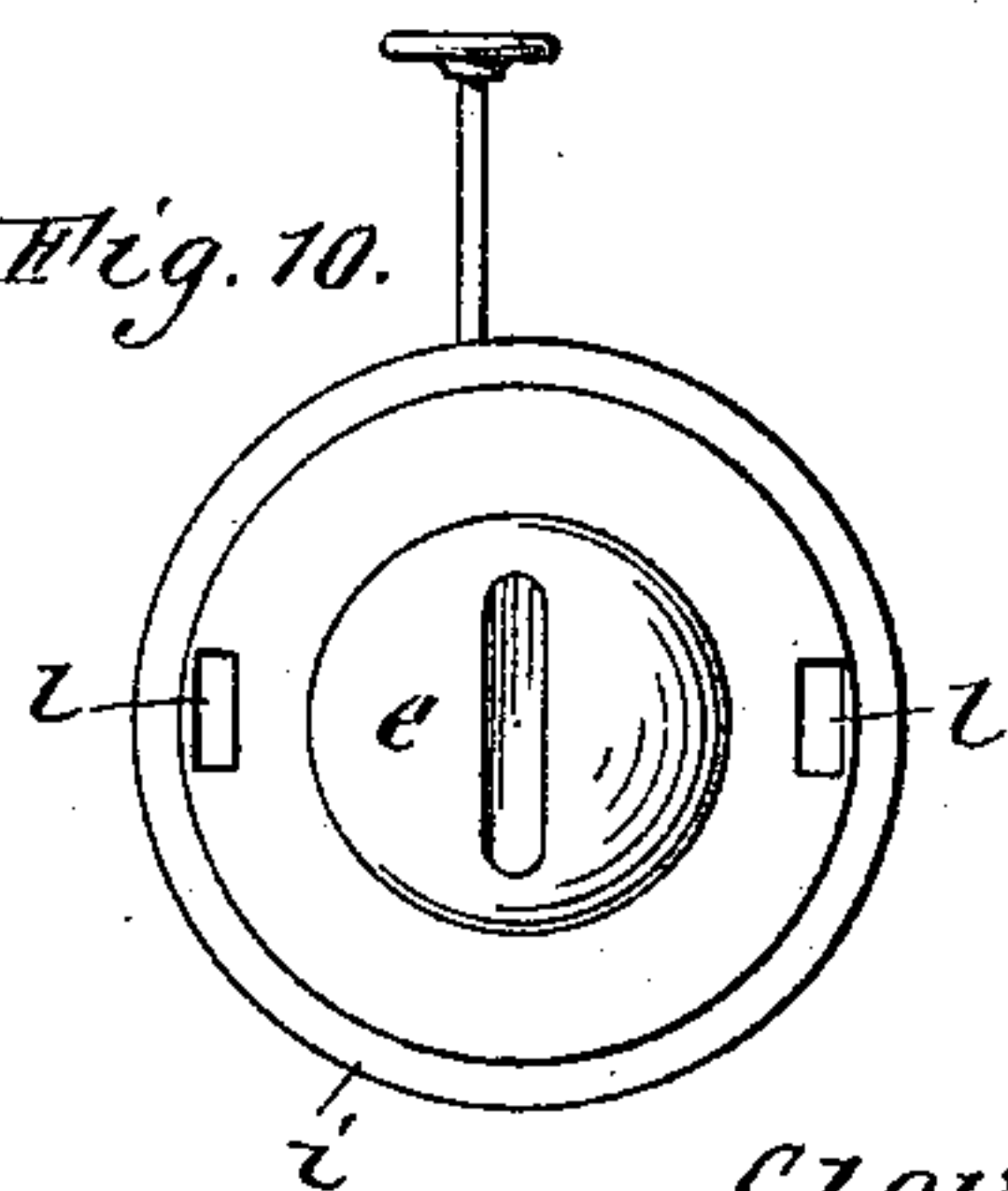


Fig. 10.



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UNITED STATES PATENT OFFICE.

CLOVIS LAPIERRE, OF MONTREAL, CANADA, ASSIGNOR TO THE DOMINION
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BURNER-FASTENING FOR TUBULAR LAMPS AND LANTERNS.

SPECIFICATION forming part of Letters Patent No. 440,896, dated November 18, 1890.

Application filed December 23, 1889. Serial No. 334,669. (No model.)

To all whom it may concern:

Be it known that I, CLOVIS LAPIERRE, a subject of the Queen of England, residing at Montreal, in the Province of Quebec and Dominion of Canada, have invented a new and useful Improvement in Burner-Fastenings for Tubular Lamps and Lanterns, of which the following is a specification.

This invention relates to a fastening for attaching the burner of a tubular lamp or lantern to the oil-pot or base thereof.

Previous to my invention an ordinary slip-burner has usually been employed, because a screw-burner cannot be used on account of the air-chamber surrounding the burner, which prevents a burner provided with a wick-raiser from being turned. The slip-burner is inserted in a collar or seat in the oil-pot and held in its seat by the globe-supporting plate when the globe is in place; but unless a rigid globe-frame is employed this construction is unreliable, because when the globe is broken or removed the supporting-plate is loose, leaving the burner free and liable to be detached from its seat, thus incurring the danger of fire by the spilling of the oil. The burner has also been fastened by means of a bayonet-joint and by interlocking lugs formed, respectively, on the burner and base. These constructions require the burner to be turned in its seat in order to fasten it; but persons accustomed to the widely-used slip-burner are apt to merely insert the burner in its seat and neglect to turn it, thus leaving the burner loose in its seat, like a slip-burner.

The object of my invention is to provide a simple lock or fastening which does not necessitate turning the burner in order to fasten it to the base, and whereby the proper locking of the burner is insured by simply inserting it in its seat.

In the accompanying drawings, consisting of three sheets, Figure 1 is a vertical section of the lower portion of a tubular lantern, showing my improved fastening applied to a burner having a detachable cone. Fig. 2 is a similar view showing the burner detached from the lantern. Fig. 3 is a horizontal section of the burner in line *x x*, Fig. 1. Fig. 4 is a top plan view of the burner with the

burner-cone removed. Fig. 5 is a vertical section of the lower portion of a tubular street-lamp, showing my improvement applied to a burner having a hinged cone. Fig. 6 is a top plan view of this street-lamp burner. Fig. 7 is a vertical section of a street-lamp burner, showing a slightly-modified construction of the fastening. Fig. 8 is a vertical section of the lower portion of a tubular lantern, showing my improvement applied to a burner in which the cone is secured to the burner. Fig. 9 is a similar view with the burner detached from the lantern. Fig. 10 is a top plan view of the burner.

Like letters of reference refer to like parts in the several figures.

Referring to Figs. 1, 2, 3, and 4, A represents the base or oil-pot of a tubular lantern; B, the burner, seated with its lower portion in a collar or socket *b*, secured in the top of the oil-pot; C, the annular air-chamber surrounding the burner, and D the air-tubes connected with the air-chamber.

e is the burner-cone, which is detachable from the burner, and F the perforated plate, resting on the cone and supporting the globe.

g g represent upright spring-catches arranged within the air-chamber C, on opposite sides of the burner, and provided at their upper free ends with inwardly-projecting hooks, heads, or enlargements *g'*, which engage over the upper edge of the perforated gallery *h* of the burner, so as to retain the burner in the collar of the oil-pot. The gallery *h* is provided in opposite sides with notches *h'*, into which the heads of the spring-catches project, and which allow the catches to spring inwardly a sufficient distance to clear the skirt of the detachable burner-cone and permit the latter to be placed over the top of the air-chamber. The spring-catches may be secured at their lower portions to the top of the oil-chamber or to the inner side of the air-chamber by soldering or otherwise. Upon inserting the burner into its collar or socket the spring-catches are spread apart by the tapering lower portion of the burner until their hooks or enlargements arrive opposite the notches in the gallery of the burner, when the catches spring inwardly and engage

with their hooks over the lower edges of said notches, thereby securely holding the burner in its seat. The burner is readily detached from the lantern by removing the burner-
5 cone and pressing the spring-catches outwardly, so that their hooks or enlargements clear the edges of the gallery.

In the construction represented in Figs. 5 and 6, in which my improvement is applied
10 to the burner of a street-lamp, the upper part of the cone is hinged to the gallery of the burner, while the skirt or lower part *i* of the cone is secured to the same. The heads or
15 hooks of the spring-catches project outwardly in this case and engage over the upper edge of the skirt, and thereby retain the burner in its seat.

The gallery is provided in its upper edge, on opposite sides, with notches or recesses *j*,
20 which permit the heads of the spring-catches to move inwardly and pass the upper edge of the skirt in inserting the burner. Upon inserting the burner in its seat the upwardly-tapering sides of the cone-skirt press the up-
25 per portions of the catches inwardly until their heads project above the upper edge of the skirt, when they spring outwardly and engage over said edges. Upon swinging aside
30 the hinged top of the burner-cone and pressing the spring-catches inwardly into the notches of the gallery, the hooks of the catches will be released from the skirt of the cone and allow the burner to be lifted from its seat.

In the modified construction represented
35 in Fig. 7 the parts of the cone are attached to the burner as in the construction represented in Figs. 5 and 6; but the spring-catches, instead of engaging over the upper edge of
40 the skirt of the cone, pass through openings *k* in opposite sides of the skirt, the spring-catches being formed at their upper ends with hooks or offsets, which engage against
45 the lower edges of the openings, as clearly represented in Fig. 7. The burner is attached in the same manner as in the foregoing construction, and is removed by pressing the catches inwardly so as to release their offsets from the edges of the openings.

In the modified construction represented
50 in Figs. 8, 9, and 10, in which my improvement is applied to the burner of a tubular lantern having the cone rigidly secured to the lantern - burner, the spring - catches pass

through openings *l* in the shoulder of the burner-cone, as clearly represented in Fig. 8. 55
The gallery of the burner is provided in opposite sides with notches *m* for the passage of the catches in inserting and removing the burner. The globe-supporting plate *F* is provided with openings *n*, through which the up- 60
per ends of the catches pass when the plate rests upon the burner. The burner is removed by pressing the catches inwardly so as to release the offsets of the catches from the edges of the openings in the shoulder of 65
the cone.

In all of the several constructions the spring-catches are automatically interlocked with the detachable burner in the act of inserting the burner in its seat, so that it is impossible 70
to properly seat the burner without securing it in place.

By the use of my improved fastening it is only necessary to insert the burner like an ordinary slip-burner, without turning it, there- 75
by insuring the proper attachment of the burner to the oil-pot or base.

The fastening is very simple and inexpensive and permits the burner to be readily at- 80
tached and removed.

I claim as my invention—

1. The combination, with the base or oil-pot having a burner-socket and an air-chamber surrounding said socket, of a burner seated in said socket and upwardly-projecting spring- 85
catches arranged within said air-chamber and engaging with their free upper ends with the burner, whereby the burner is locked by simply lowering it into the socket, substantially as set forth. 90

2. The combination, with the base or oil-pot having a burner-socket, of a burner seated in said socket and provided with a surrounding gallery and upwardly-projecting spring- 95
catches secured with their lower ends to said base or oil-pot and engaging with their free upper ends with the burner-gallery, whereby the burner is locked in the socket, substantially as set forth.

Witness my hand this 13th day of Decem- 100
ber, 1889.

CLOVIS LAPIERRE.

Witnesses:

H. B. WRIGHT,
J. HAMILTON FERRIS.