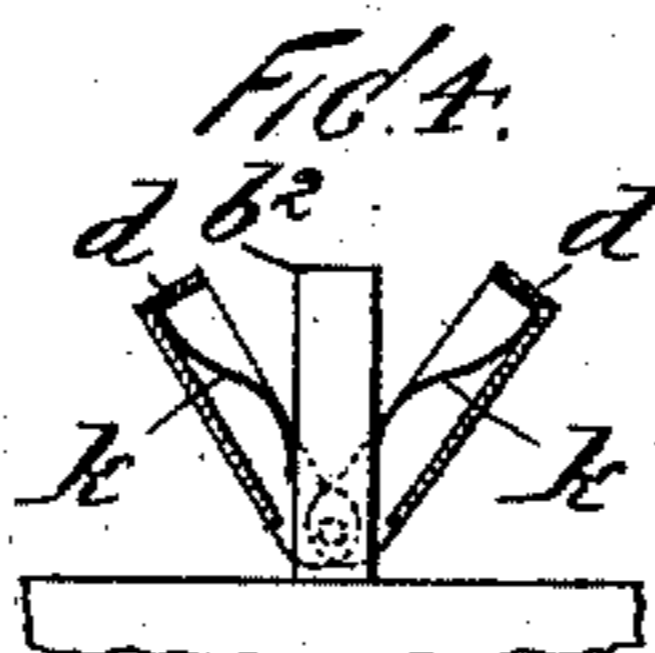
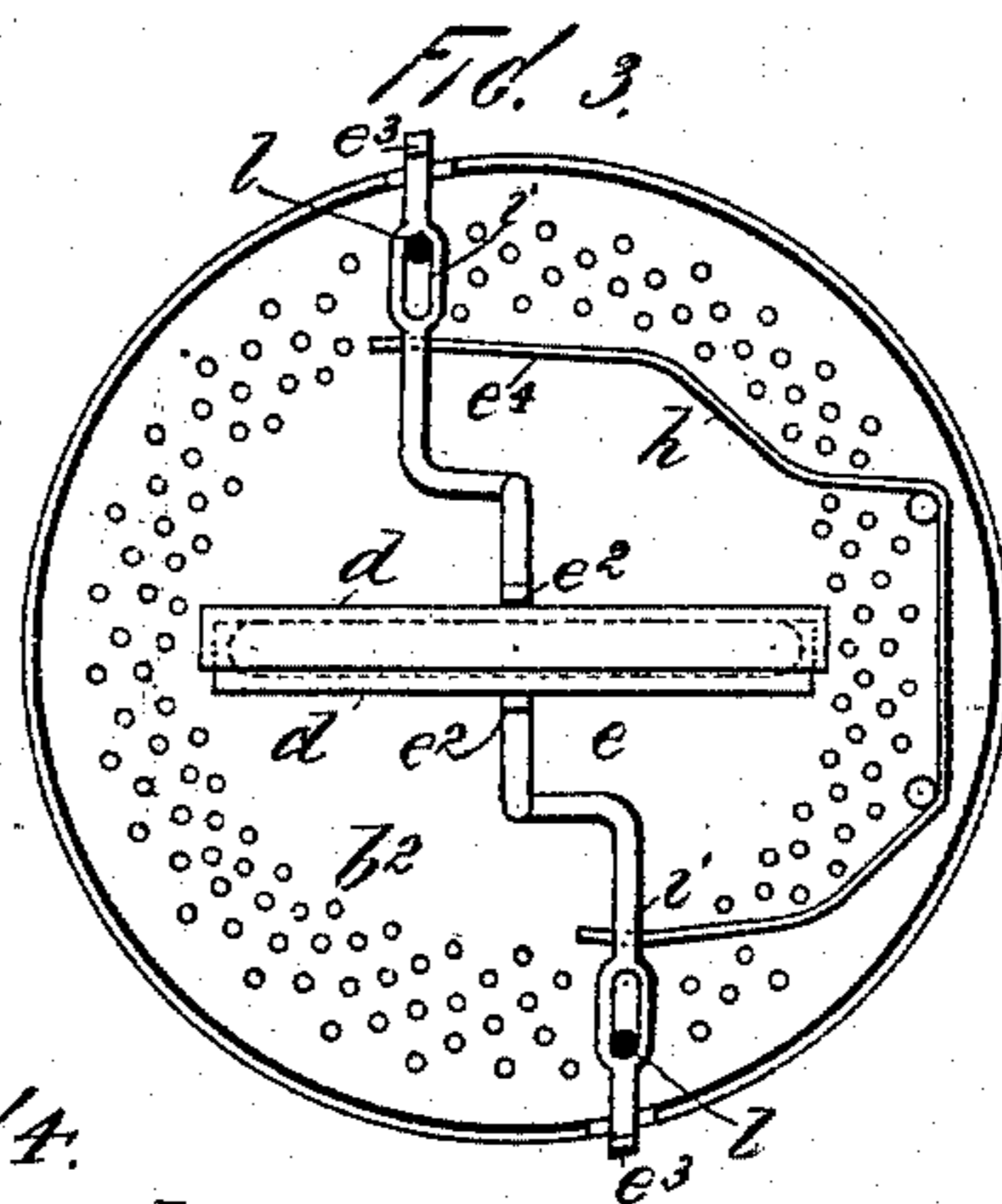
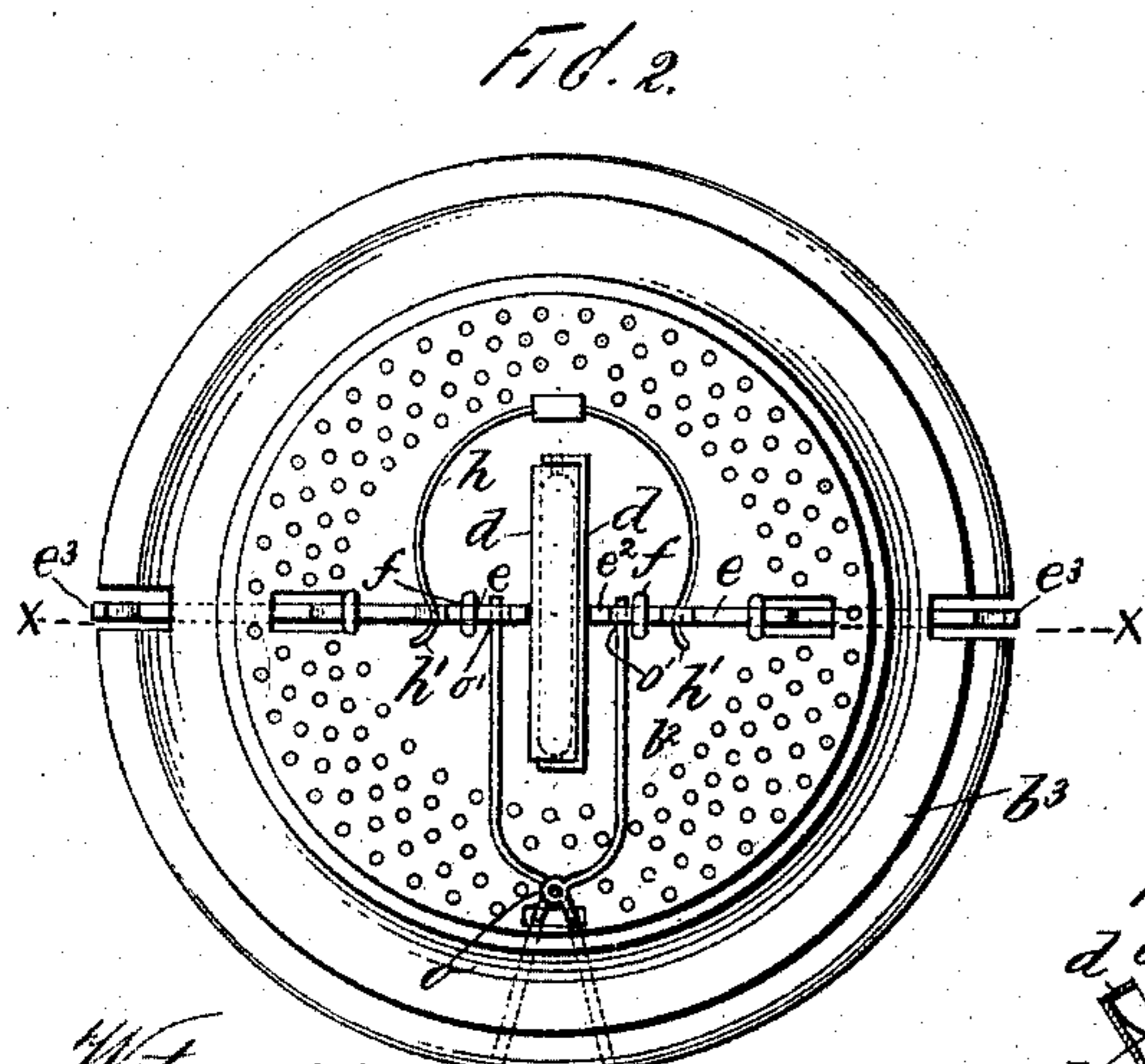
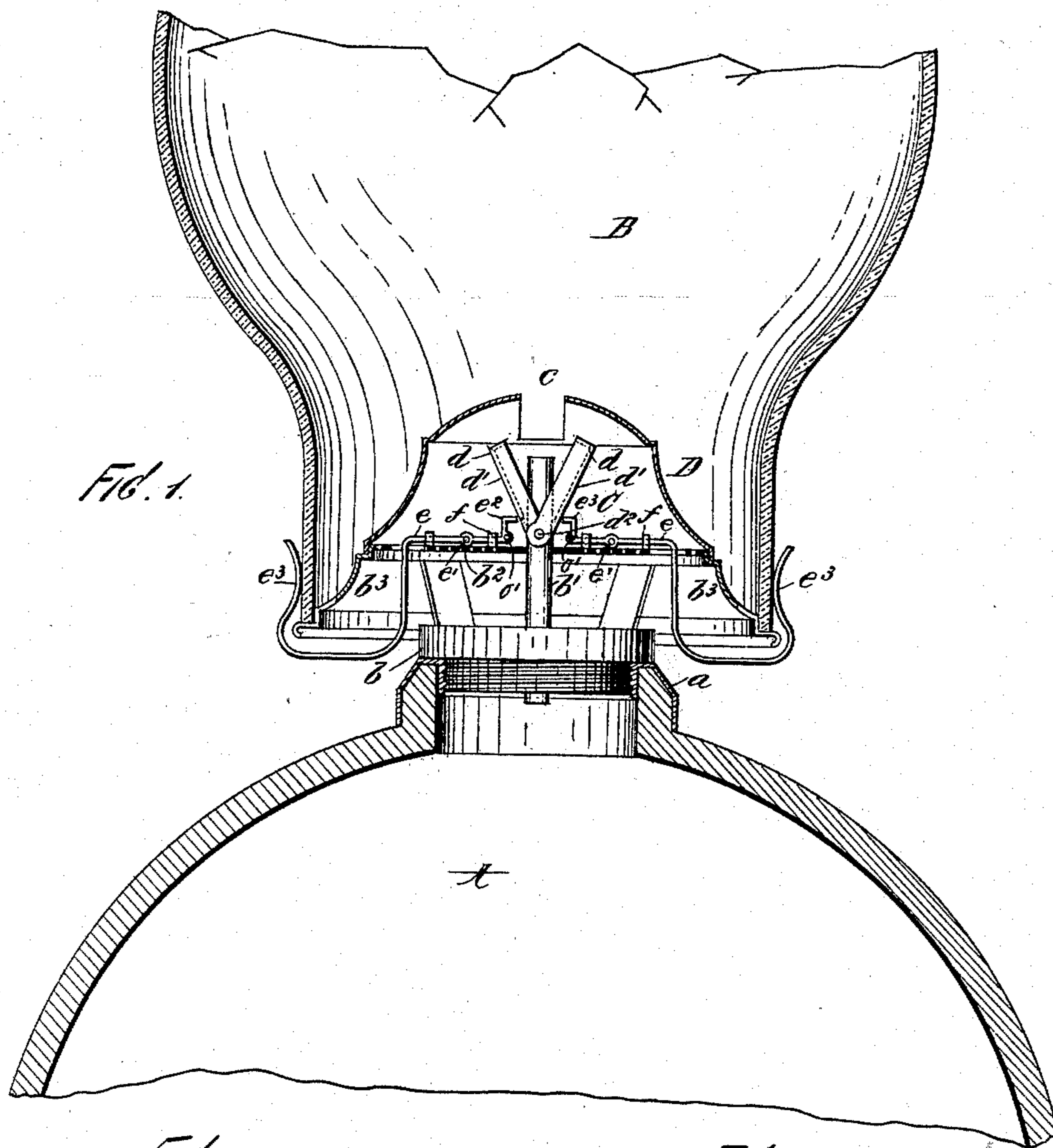


(No Model.)

G. A. McCAY.
LAMP.

No. 518,531.

Patented Apr. 17, 1894.



Witnesses: J. M. N.
John Buckler,
Wm. E. Trufur.

Inventor:
George A. McCay,
By Wm. E. Trufur,
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE ADAMS MCCAY, OF BROOKLYN, ASSIGNOR OF ONE-THIRD TO
FREDERICK LEACH, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 518,531, dated April 17, 1894.

Application filed June 2, 1893. Serial No. 476,316. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ADAMS MCCAY, a citizen of the United States, and a resident of the city of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

My invention, while relating to lamps generally, has reference more particularly to that class of such devices which is employed to burn kerosene and other hydro-carbon oils, and has for its object to provide means for automatically extinguishing the flame when the chimney is removed, as by the dropping or overturning of the lamp.

To this end, the invention consists in certain new and useful constructions and combination of parts as hereinafter described, the novel features of which are more particularly pointed out in the subjoined claims.

Referring to the accompanying drawings, which form a part of this specification, Figure 1. is a vertical sectional view of a portion of a lamp and a portion of its chimney, with my invention applied in connection therewith; the section being taken in the plane x of Fig. 2; Fig. 2, a plan view of the burner and its attached parts, with the lamp chimney removed; Fig. 3, a similar plan view of a slightly modified form of burner and extinguishing devices, and Fig. 4, a sectional detail of the extinguisher members and means whereby they may be forced apart.

In all the figures, like letters of reference are employed to designate corresponding parts.

A indicates the oil fount or body of the lamp, which is provided with an internally threaded lamp collar a , and B is the lamp chimney which may be of any ordinary or preferred construction. Fitted to the lamp collar a , by an externally screw threaded neck, b , which engages with the internal threaded portion thereof, is burner C. This burner is provided with the wick-tube b' , foraminated air distributor b^2 , and gallery b^3 , and has hinged, or otherwise secured, thereto the cone D, which is equipped with a flame slot or orifice, c , all as is common in lamps of this class as heretofore constructed, and re-

quires no further description herein. Pivoted to the wick-tube b' , at proper points, are the members d of the extinguisher, which, in my preferred form of construction, consist of sheet-metal bodies, d' , having their ends and upper edges bent inward at right angles thereto, and provided at their lower edges with depending ears, d^2 , for receiving the pivots by means of which they are secured to the wick-tube or other parts of the burner. As shown in the drawings, these members d are disposed on opposite sides of the wick-tube, and their relative dimensions are such that when closed over the upper end of the wick-tube, one of such members shuts within the other, but this is not essential, and the two may be made of the same size and shut together with the edges of their inward bent portions abutting against each other, it only being essential that the said parts be so proportioned and arranged as to tightly envelop the top of the wick-tube when closed, whatever the shape and size of the latter may be.

Co-operating with the members d , on opposite sides of the wick-tube, are rods, e , which are fitted to slide longitudinally in suitable clips or guides, f , and are normally held pressed inward toward such members by a spring, h , which is secured to the upper side of the air distributor b^2 , engages with its free ends h' the orifice e' formed in the rods e , as shown. In the construction of these rods, their inner ends e^2 are preferably bent upward and then inward, whereby to engage with the members d at some distance above the pivots of the latter, while their outer ends are bent downward, and, after passing downward through the air distributor b^2 , are carried outward under the gallery, and thence upward in the form of holders, e^3 , to engage the outside of the lamp chimney when the latter is in place.

To provide for the falling back of the members d away from the wick-tube, when the chimney is in place on the lamp, the length of the rods e is such that, when the holders e^3 are in engagement with the outer surface of the lamp chimney, their inner ends e^2 are drawn backward from the wick-tube and the members d are allowed to fall back away from the wick, in which position the burning of the

lamp may be permitted; but immediately the chimney is removed the spring h forces the rods e inward against the members d , thereby closing them together and extinguishing the flame. The flame being extinguished, and it being the desire to relight it, the rods e will be carried outward, and the members d allowed to drop back away from the wick tube. The wick may then be relighted and the chimney replaced with the exterior of its lower end engaging with the holders e^3 on the outer ends of the rods e . As a result of this replacement of the chimney, the rods e will be held with their inner ends e^2 back away from the members d , until the chimney is again removed, when the same operation of extinguishing the flame will be repeated, and so on.

To provide for carrying outward the rods e , when it is desired to relight the lamp, various means may be employed, or the result may be accomplished by the fingers applied directly thereto. I prefer however to make use of two levers, m and n , which, pivoted together at the point o , extend downward through the foraminated air distributor b^2 and engage at their inner ends with orifices, $o' o'$, formed through the rods e , with their outer free ends extending outward under the gallery b^3 in position to be grasped by the thumb and finger, as shown in Fig. 2.

In some instances, the members d will be so constructed as to drop away from the wick-tube, when the rods e are drawn outward, by their own gravity, while in others a light spring k , interposed between them, or between each of them and the side of the wick-tube, may be employed to force them apart, as shown in Fig. 4. Again, in some instances, I dispense with the bending over of the upper edges of both of the members d , and confine that operation to the upper edge of but one of them only, in which event the body d' of the other member will be left flat at that point, as shown in Fig. 2. This however I consider unessential, and either the construction here described, or that above alluded to, may be employed with equal efficiency.

In Fig. 3, I have illustrated a slightly modified construction of the parts which co-operate with the members d . In this embodiment of my invention, the rods e^4 , instead of sliding longitudinally through retaining guides, i , as in the construction above described, are provided with slots i' , which engage with pins, l , projecting upward from the air distributor b^2 , and the rods are more or less crooked, whereby to adapt them to lamps of a different construction, but this crooking of the rods is unessential and may be dispensed with if desired.

From the foregoing, it will be seen that I produce a lamp which, while simple in construction, and permitting of the free and undisturbed burning of the wick, when in its proper upright position, with its chimney in position thereon, is extinguished automati-

cally when the chimney is removed, as by the dropping or overturning of the lamp. Again, instead of arranging the rods e so that their upturned outer ends may engage with the outside of the lower end of the lamp chimney, I may, if I so desire, arrange them so as to have such upturned ends bear against the inner side thereof, in which event such rods, instead of co-operating with the members d , on their own respective sides of the wick-tube, will co-operate with the members on the other sides thereof, and their sole function, under such arrangement, will be to hold the members back away from the wick-tube, the closure of such members, to effect the extinguishment of the flame being effected in that case by the spring.

Having now described my invention and specified certain of the ways in which it is or may be carried into effect, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a lamp burner provided with a wick-tube and with an air distributor, and a lamp chimney, of an extinguisher consisting of two members pivoted to such burner and arranged on opposite sides of the wick-tube, longitudinally movable rods for co-operating with such members and the lamp chimney, and a spring for normally forcing said rods inwardly toward the wick-tube, substantially as described.

2. The combination, with a lamp burner provided with a wick-tube and with an air distributor, and a lamp chimney, of an extinguisher consisting of two members pivoted to the wick-tube and disposed on opposite sides thereof, longitudinally removable rods for co-operating with such members and provided with upturned ends for engagement with the outer surface of the lamp chimney, resilient devices for normally forcing such rods inward toward the wick-tube, whereby, when the chimney is in place on the lamp, the longitudinally movable rods are held outward and the members of the extinguisher allowed to fall back away from such wick-tube, but upon the removal of the chimney, the rods are forced inward by the resilient devices and the members thereby closed over the wick-tube, to extinguish the flame, substantially as described.

3. The combination, with a lamp burner provided with a wick-tube and with an air distributor, and a lamp chimney, of an extinguisher consisting of two members pivoted to such burner and arranged on opposite sides of the wick-tube, longitudinally movable rods for co-operating with such members and with the lamp chimney, a spring for normally forcing said rods inward toward the wick-tube, and devices by means of which they may be forced outward, substantially as described.

4. The combination, with a lamp burner provided with a wick-tube and with an air

distributor, and a lamp chimney, of an extinguisher consisting of two members pivoted to such burner and arranged on opposite sides of the wick-tube, longitudinally movable rods for co-operating with such members and with the lamp chimney, a spring for normally forcing said rods inward toward the wick-tube, and levers by means of which

they may be forced outward, substantially as described.

In testimony whereof I have hereunto set my hand.

GEORGE ADAMS McCAY.

Witnesses:

FREDERICK LEACH,
JNO. CROCKER.