

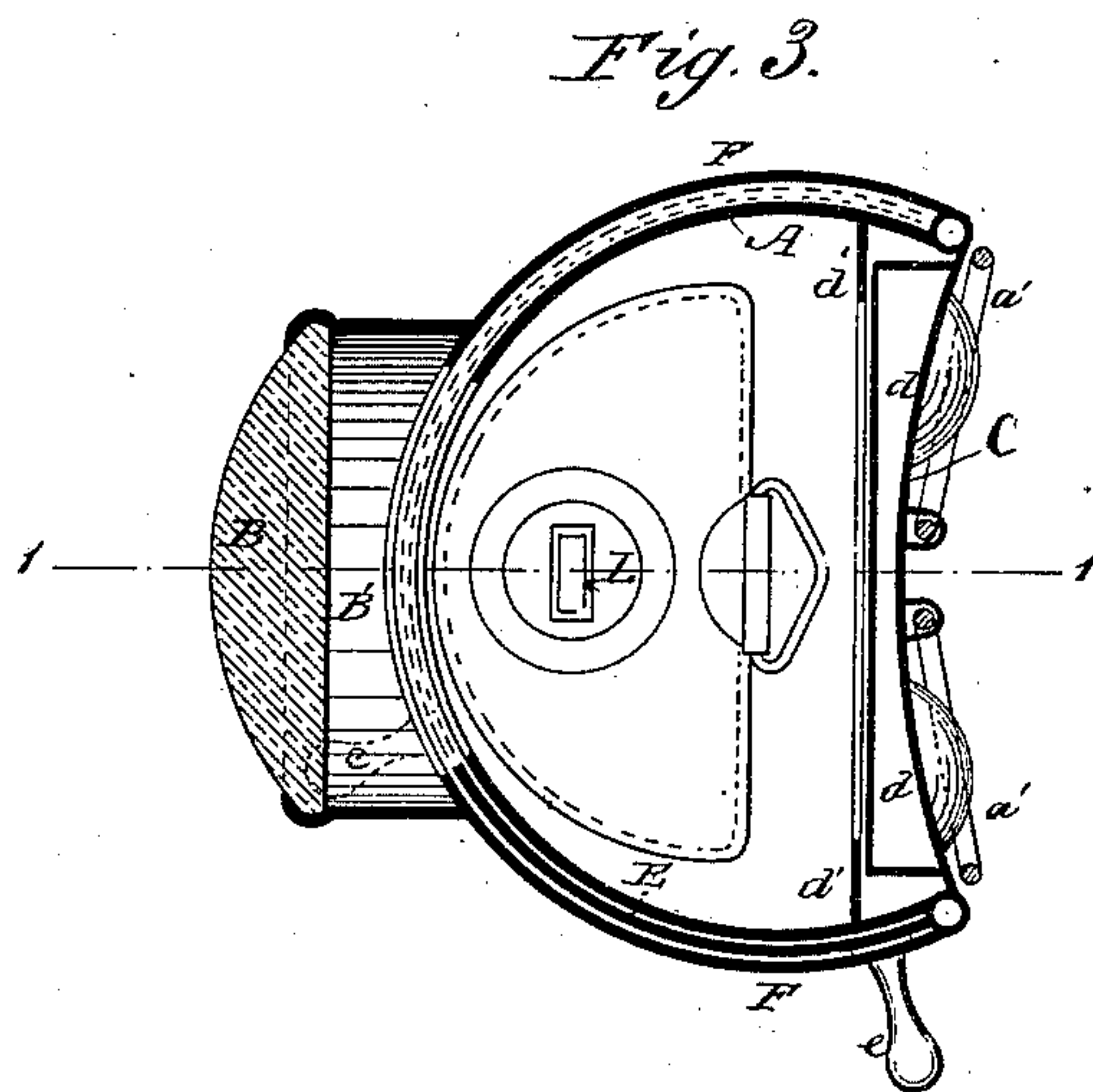
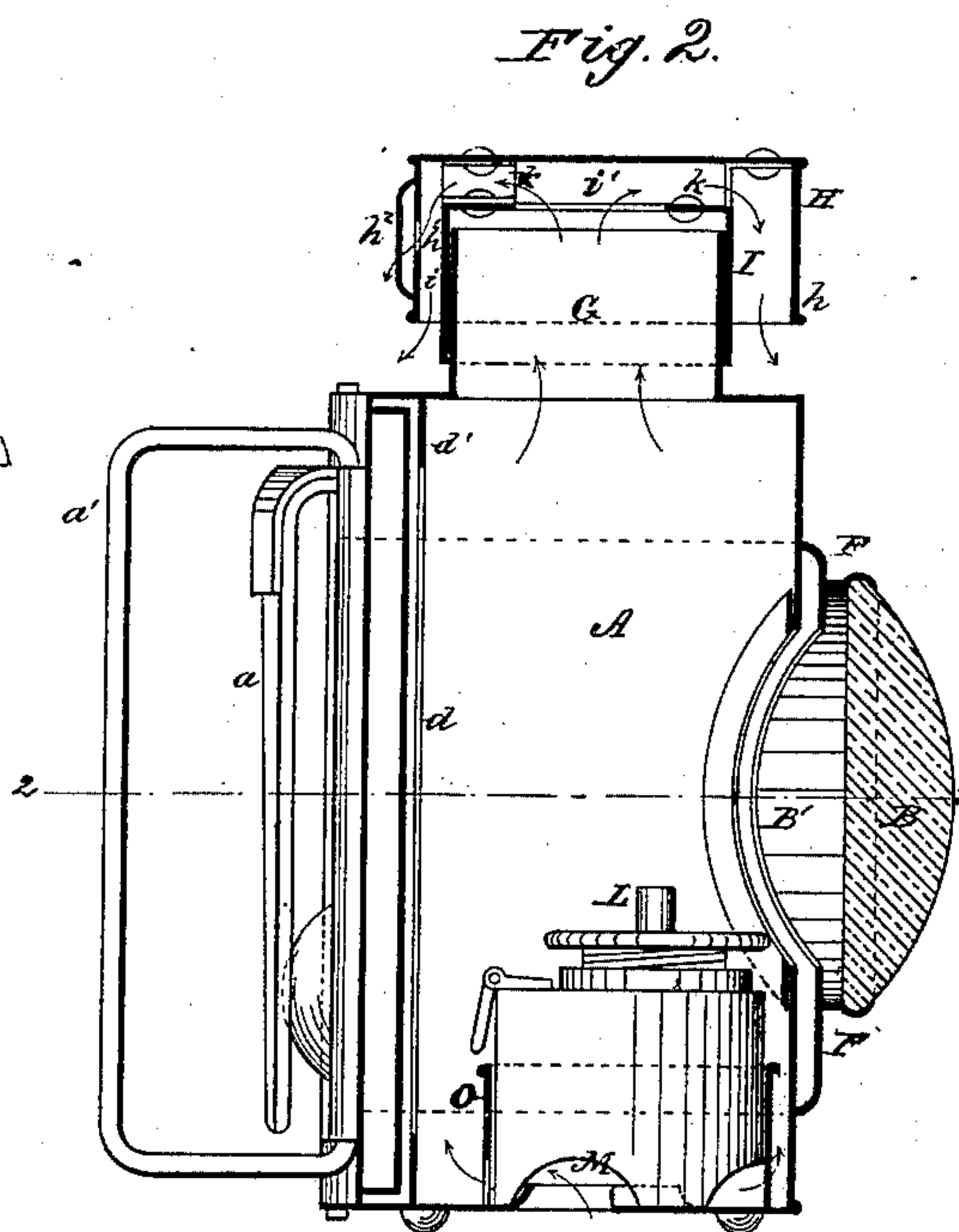
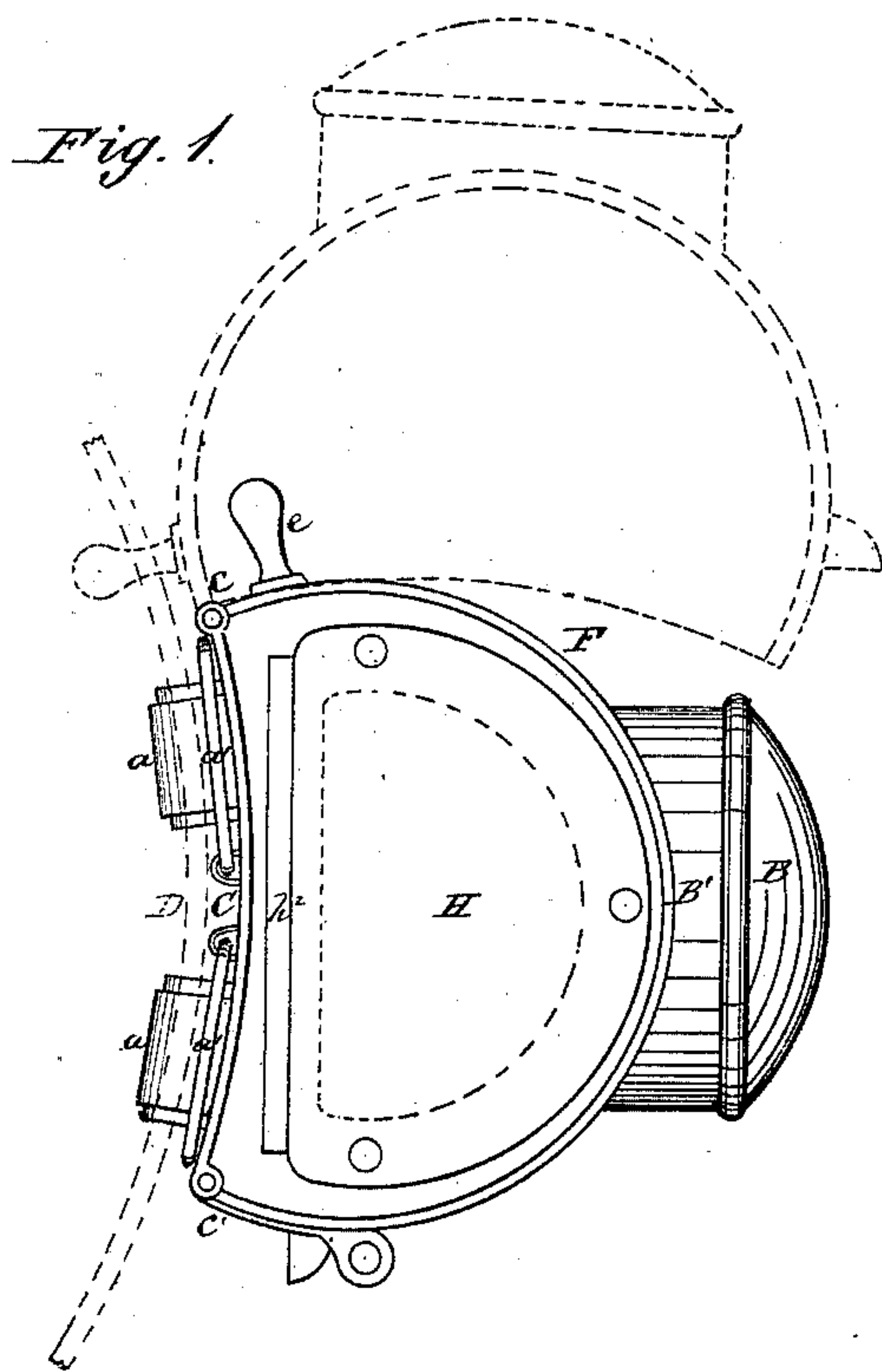
(No Model.)

2 Sheets—Sheet 1.

P. B. BICKNELL.
Dark Lantern.

No. 231,987.

Patented Sept. 7, 1880.



WITNESSES:

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Edw. W. Byrn

INVENTOR:

J. J. Picknell

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(No Model.)

2 Sheets--Sheet 2.

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Fig. 4.

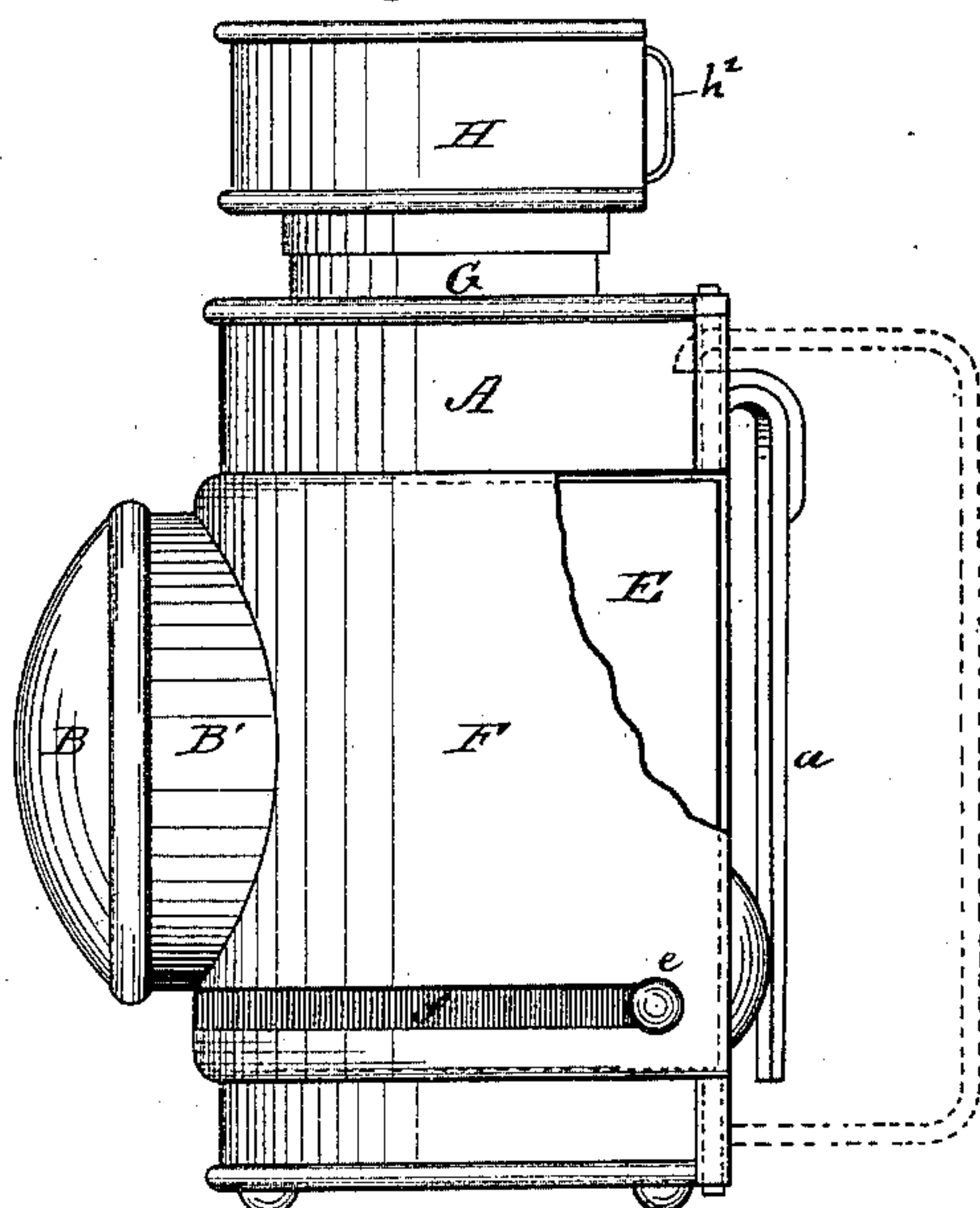


Fig. 5.

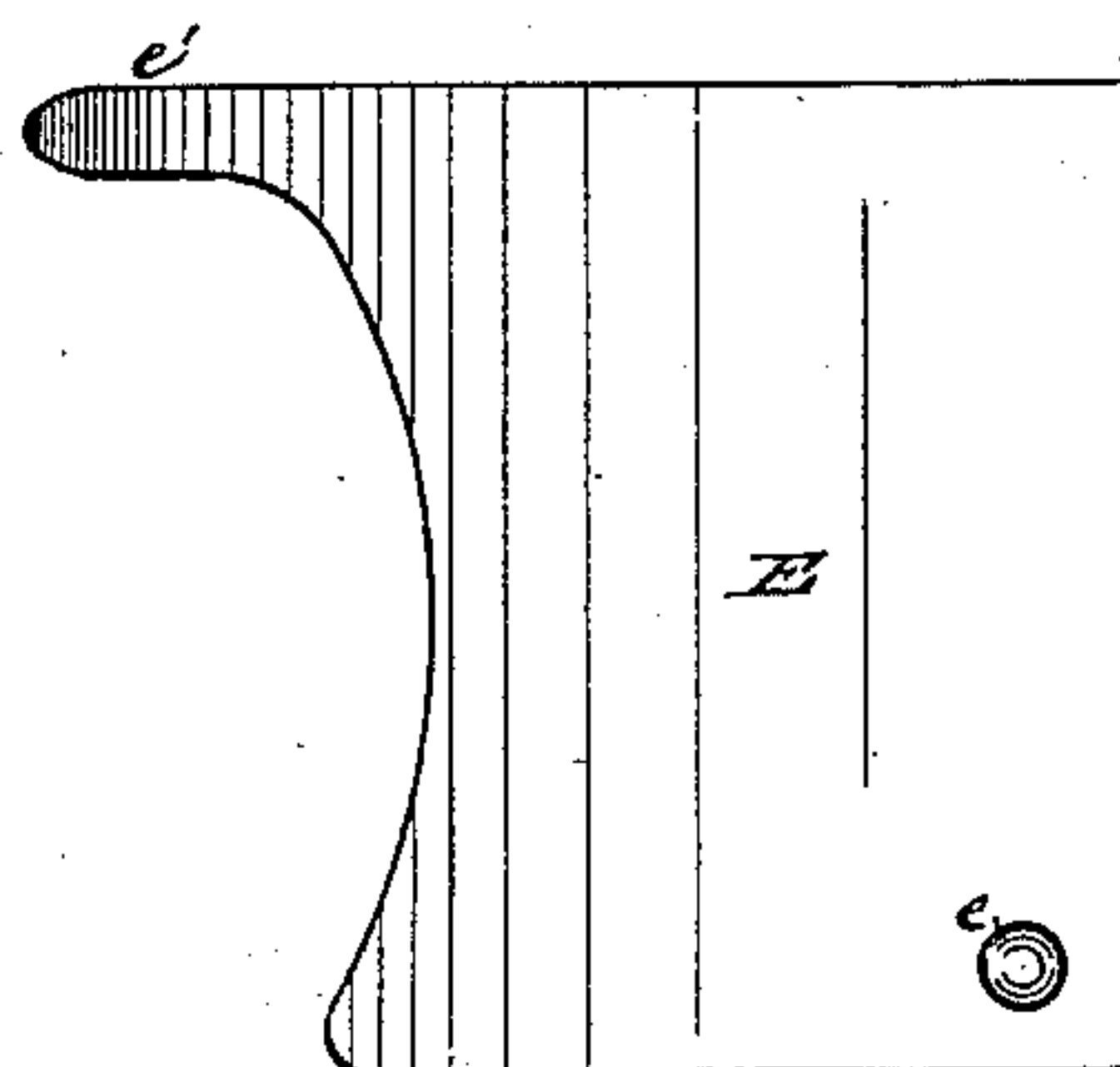


Fig. 6.

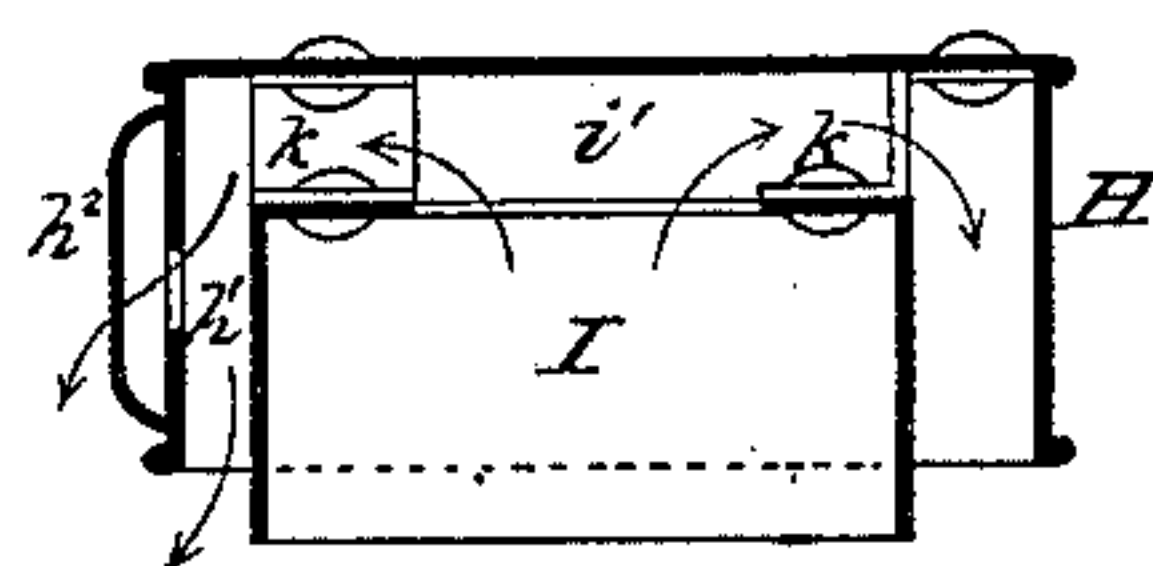
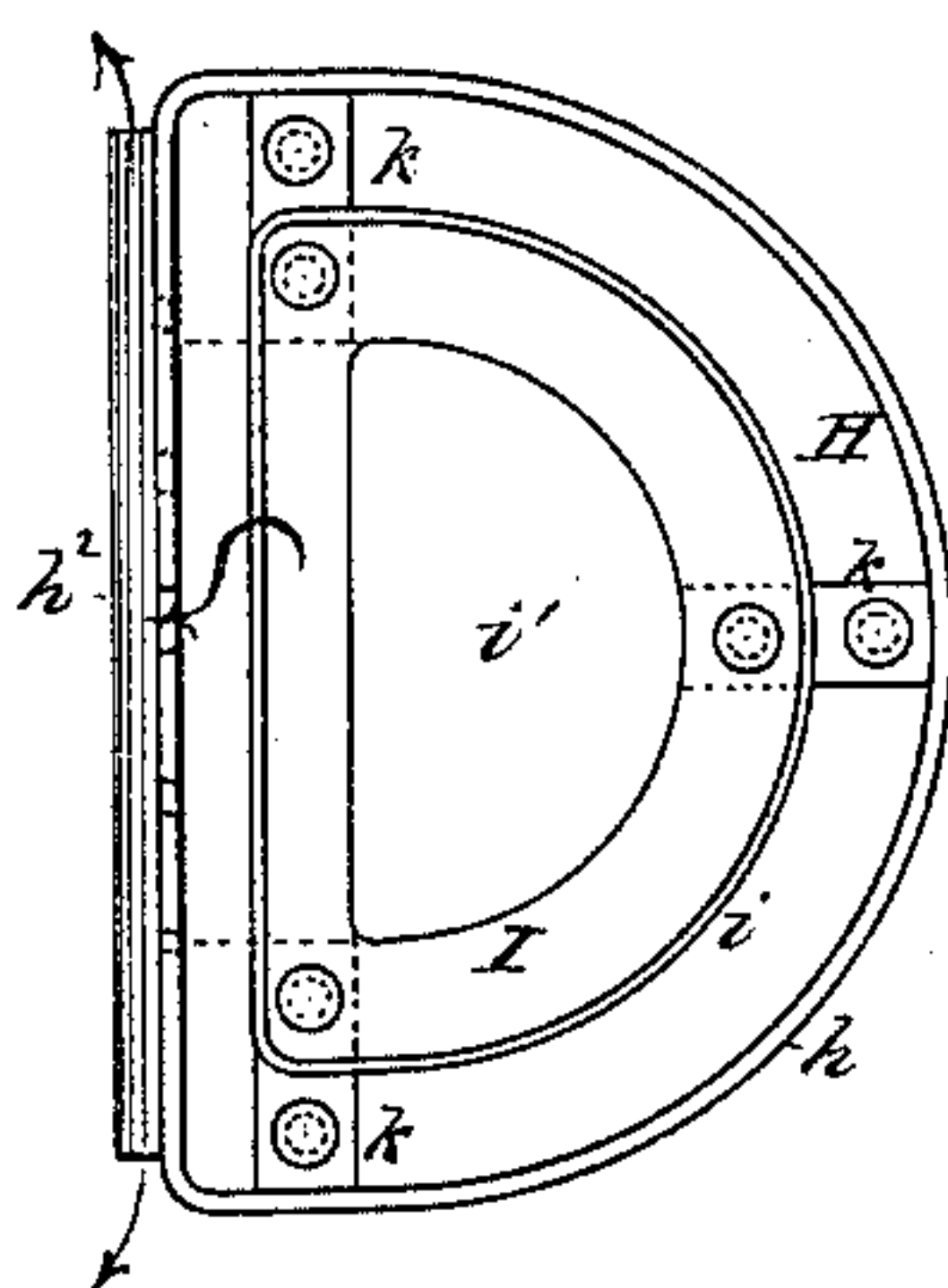


Fig. 7.



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UNITED STATES PATENT OFFICE.

PHILIP B. BICKNELL, OF LINCOLN, ENGLAND.

DARK-LANTERN.

SPECIFICATION forming part of Letters Patent No. 231,987, dated September 7, 1880.

Application filed June 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, PHILIP BLUNDELL BICKNELL, of the city of Lincoln, England, have invented a new and useful Improvement in Dark-Lanterns; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to certain improvements in dark-lanterns for the use of policemen, watchmen, and others. It is an improvement on that general form of lantern which is constructed with a rounded front side and a flat or slightly-concave rear side adapted to lie against the wearer, and in which the front portion is hinged to a back plate attached to the waist-belt, so that the front portion may fold outwardly with the lamp to give access to the latter.

My improvements consist in the peculiar construction of the lantern, designed to prevent emission of light at the joints of the door and top of the lantern and the leakage of oil at the bottom, together with other details of construction, as will be hereinafter fully described.

In the drawings, Figure 1 is a plan of the improved dark-lantern. Fig. 2 is a central vertical section of the same on line 1 1, Fig. 3. Fig. 3 is a horizontal section on line 2 2, Fig. 2. Fig. 4 is a side elevation. Figs. 5, 6, and 7 show details.

A is the case of the lantern. B is the usual bull's-eye or lens, and C is the door of the lantern.

The case A is made semi-cylindrical, or rather more than a semi-cylinder, so that it has a flat, or, rather, concave, back, which back is the door C, and is hinged to the case at one side, *c*, and secured by a hasp and staple, *c'*, at the other side. The case or lantern A is provided with two belt-hooks, *a*, to hang on the waist-belt D, and with folding wire handles *a'* for carrying the lantern in the hand.

In Fig. 1 is shown in dotted lines how, by unfastening the door at *c'* the whole lantern, except the door C, may be swung round on the hinge *c*, thus giving convenient access to the interior. The door C is made with an inwardly-projecting lining or boxing, *d*, which fits in the outer casing, A, and lies flat against an

inwardly-projecting flange or curtain, *d'*, so as to prevent the emission of light around the edges of the door.

E is the dark-slide, fitted to run between the case A and an outer jacket, F, soldered to A. The rim B', in which the bull's-eye lens B is carried, is soldered to this outer jacket, F, instead of to the case A, and the dark-slide E, being of sufficient size to completely cover the aperture and have its edges received on all sides between A and E, no light can shine round the edges of the slide.

e is a handle fixed to the slide E and projecting through a horizontal slot, *f*, in the outer jacket, F, for operating the slide. *e'* is a projecting corner or nose on the slide E. (Seen in Fig. 5, which is a separate view of the slide.) This nose *e'* serves to guide the slide E and make it move more easily.

G is the chimney, and H I a double cap fitting removably on the chimney and cutting off all rays of light, while affording complete ventilation. This double cap is separately represented in section and under-side plan in Figs. 6 and 7. The two caps H I are riveted together by short studs or distance-pieces, *k*. The inner cap, I, consists of a side flange, which fits on the chimney G, and a top plate having an aperture, *i'*, rather less than that of the chimney G. The outer cap, H, consists of a top plate with descending side flange, *h*. It is larger than the inner cap, I, and is fixed by the pieces *k* at the proper distance therefrom to allow the escape of smoke, &c.

Small holes, *h'*, may be provided in the flange of the cap H, screened by a metal strip, *h²*, fixed at a short distance from them. As shown in Figs. 6 and 7, this strip extends the full length of the flat side of the cap and opens at its ends, as shown in Fig. 7.

The chimney G and the double cap H I are of the same semicircular form as the body of the lantern.

L is the lamp proper. It is also of semicircular form, and fits in a socket rising from the bottom of the case A.

M is the hole in the bottom of the lamp for the admission of fresh air, which has access between it and the bottom of the oil-pan. The edges of this aperture M are turned upward

sufficiently to prevent oil spilled in the body of the lamp running out and dropping onto the clothes of the person carrying the lantern.

To permit the air (which enters through the flanged hole) to rise freely beneath the bottom of the lamp, the latter is elevated upon legs, as shown in Fig. 2. To prevent the lamp from shifting its position it is held in a flanged socket, *o*, fixed in the bottom of the lantern, the walls of which socket are perforated near their lower edges to allow the air which rises through hole *M* to gain access to the wick.

In order to render the light more brilliant, the wick-tube is not placed in the center of the lantern, but the focus of the lens is ascertained and the wick placed accordingly.

Having thus described my invention, what I claim as new is—

1. In a dark-lantern, the combination of the case or body of the lantern and the outer jacket on which the lens is mounted, with the dark-slide arranged to run between the two, substantially as and for the purpose set forth.

2. In a dark-lantern, the dark-slide fitted to run between the body of the lantern and an outer jacket, and provided with a handle work-

ing in a slot in the outer jacket, substantially as shown and described.

3. The combination, with the lantern having chimney *G*, of the detachable double cap, consisting of the tube *I*, having top *i'*, with a contracted opening, and the cap *H*, depending over the part *I* and secured thereupon by pieces *k*, as shown and described.

4. The semicircular double cap *H*, having openings *h'* in its straight or rear side screened by a strip, *h*², opening at its ends, as shown and described.

5. A lantern-case having an air-hole in the bottom of the same with upwardly-turned edges, in combination with a lamp located on the said bottom, substantially as and for the purpose specified.

The above specification of my invention signed by me this 15th day of May, 1830.

PHILIP BLUNDELL BICKNELL.

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