(No Model.) 3 Sheets—Sheet 1.

E. M. ROSENBLUTH.

LANTERN.

No. 561,816. Patented June 9, 1896.

FIG. 1.

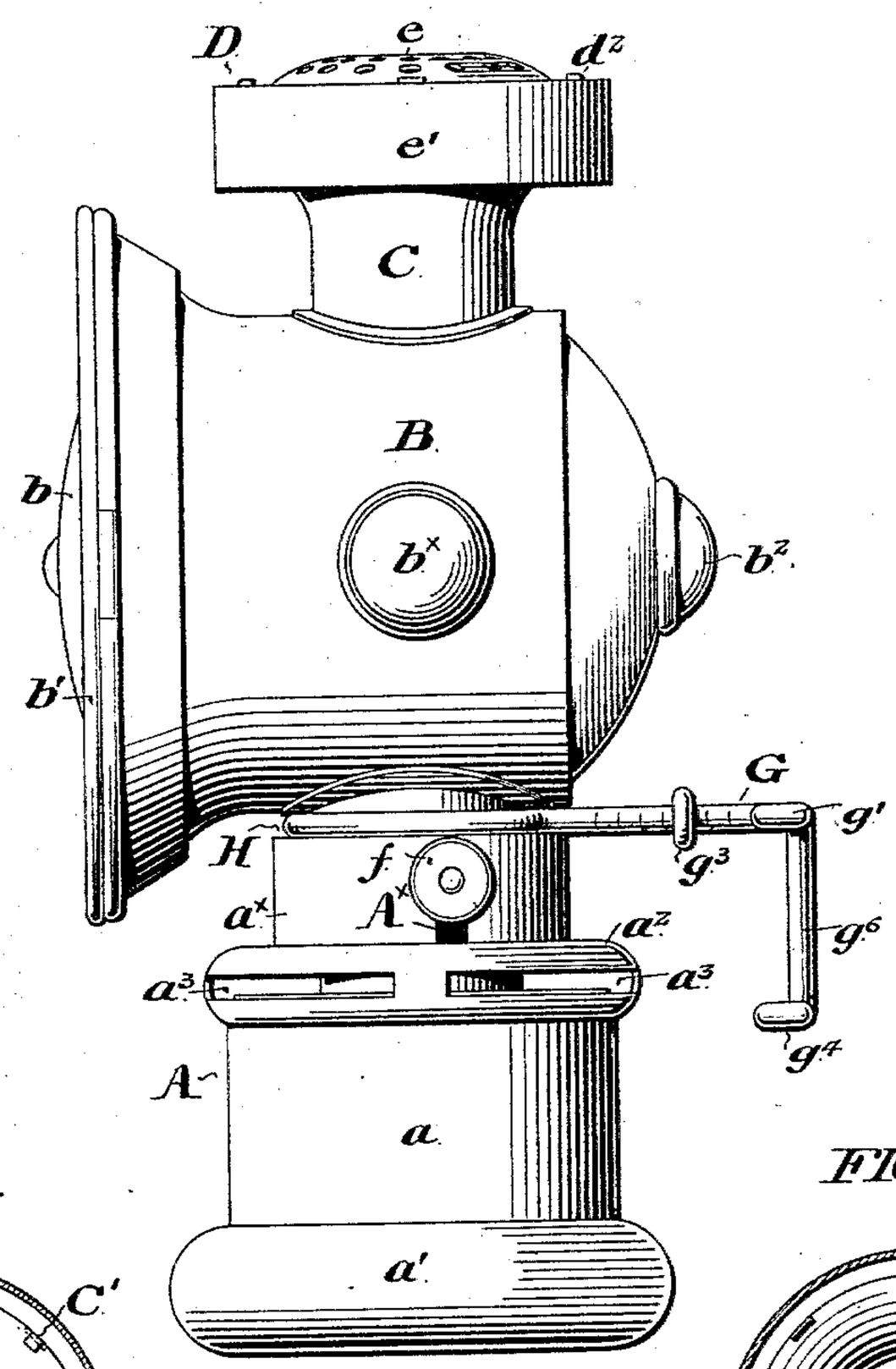


FIG. 5.

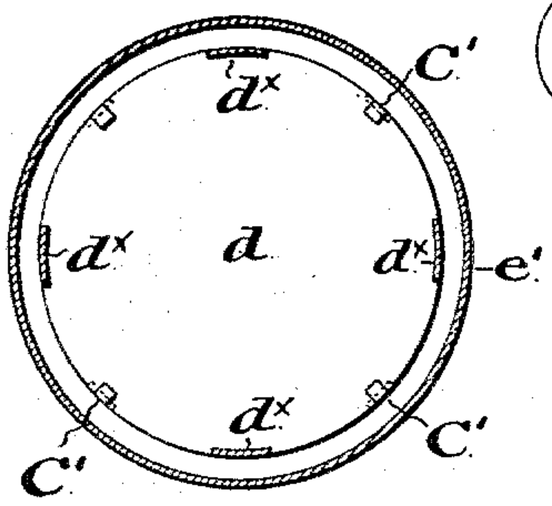


FIG. 6.

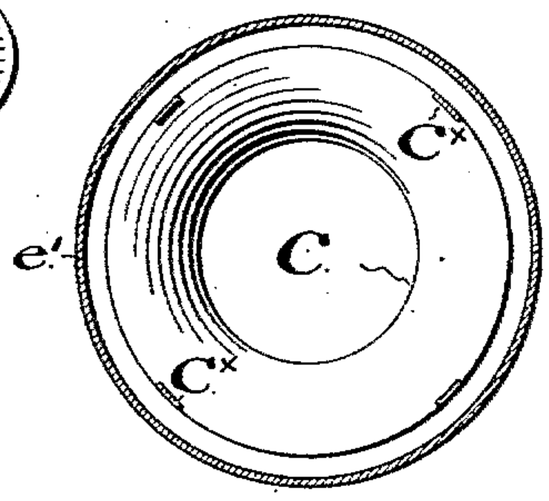
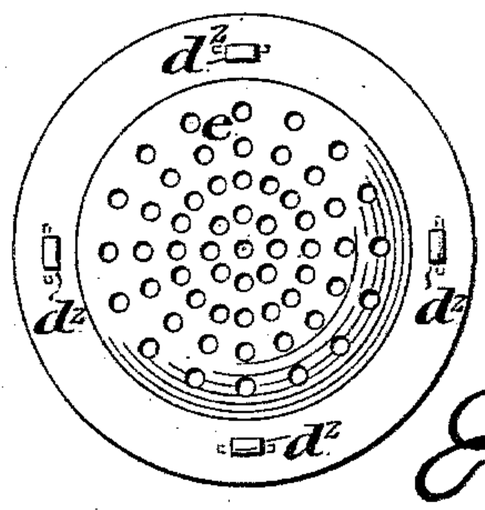


FIG. 7.



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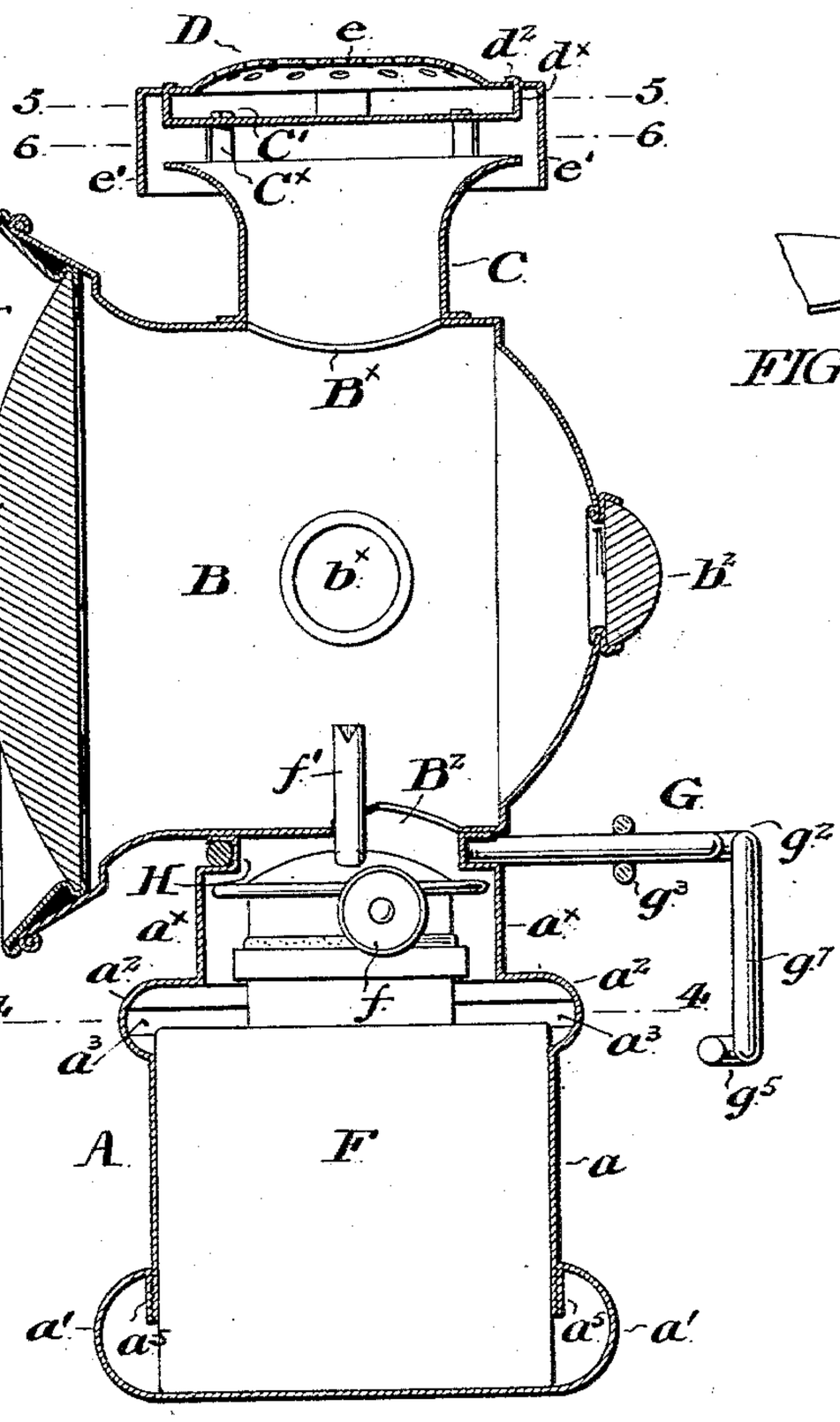
(No Model.) 3 Sheets—Sheet 2.

E. M. ROSENBLUTH.

LANTERN.

No. 561,816. Patented June 9, 1896.

FIG. 2.



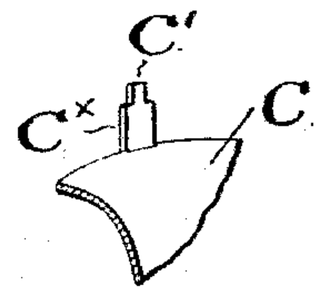


FIG. 10.

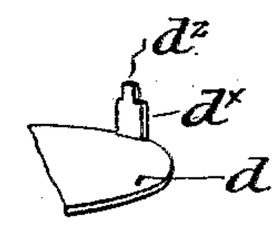
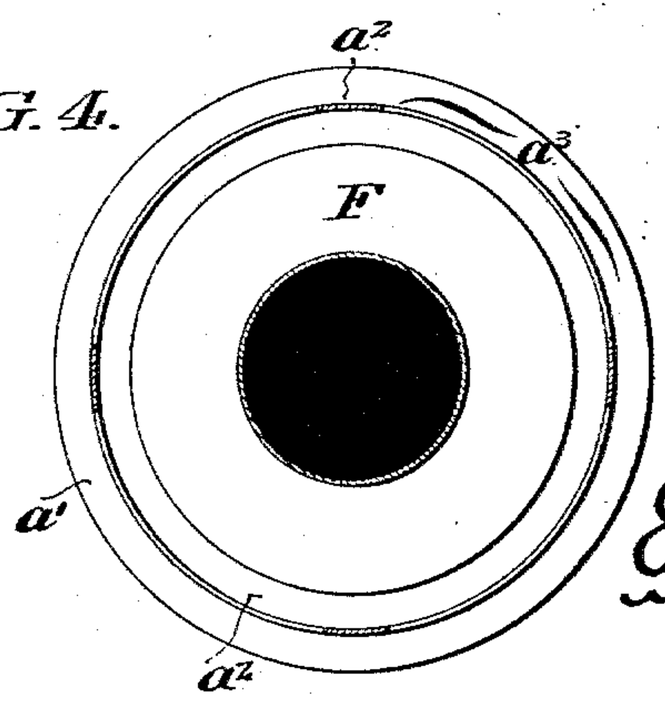


FIG. 11.

FIG. 4.



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LANTERN.

No. 561,816. Patented June 9, 1896.

FIG. 3.

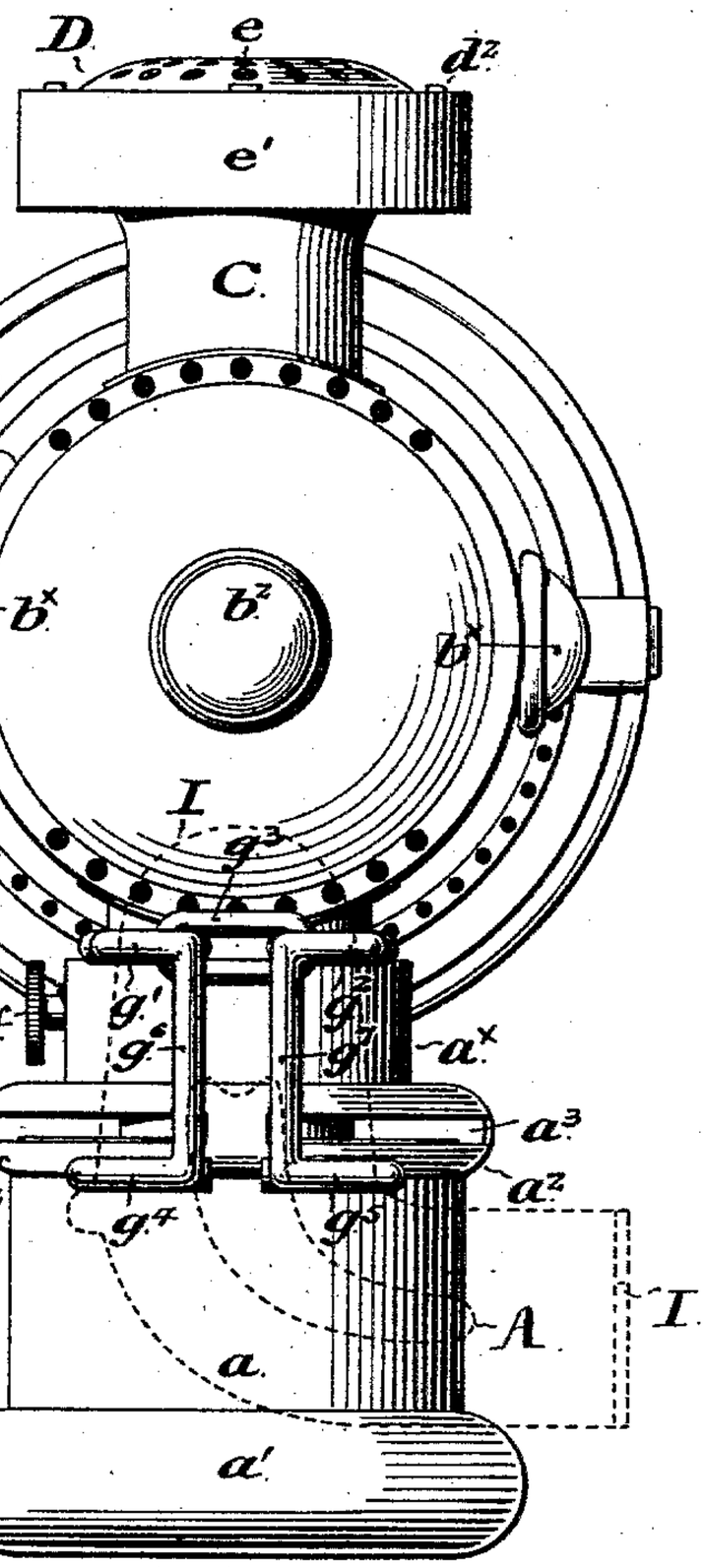


FIG. 8.

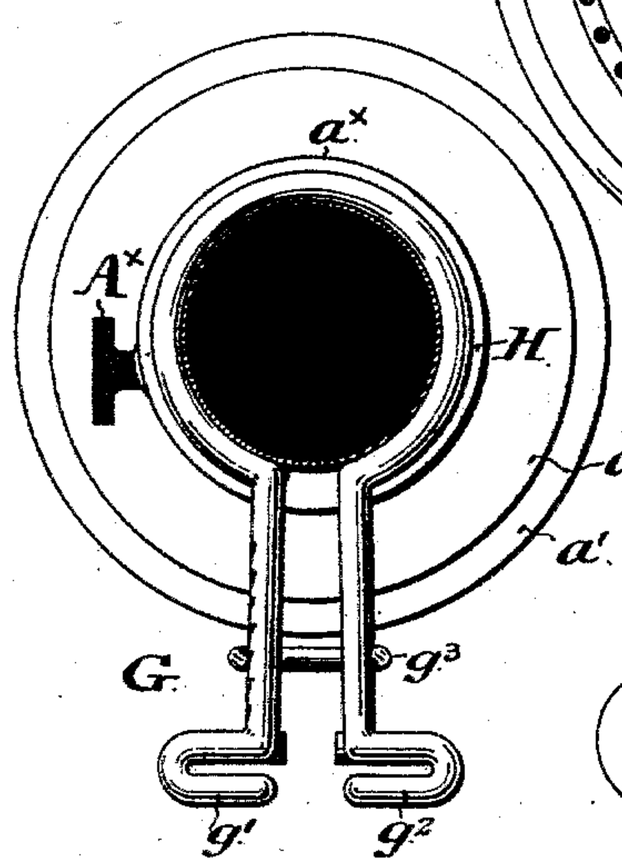
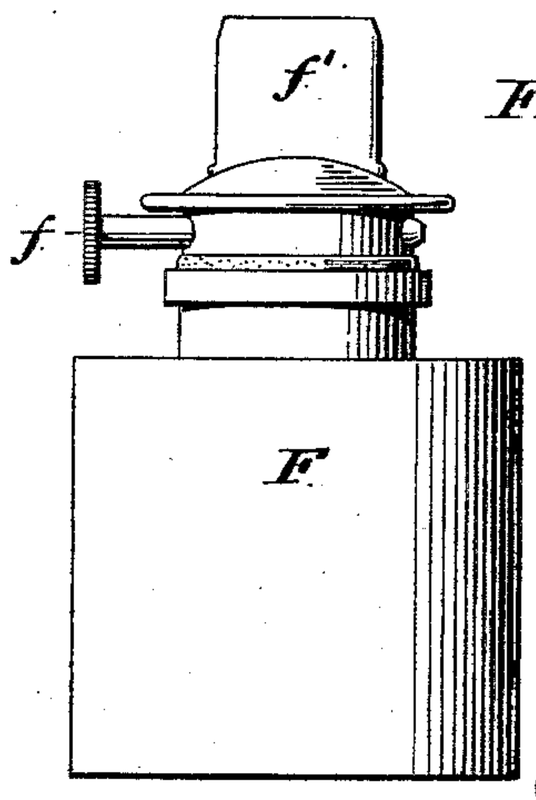


FIG. 9.



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UNITED STATES PATENT OFFICE.

EDWIN M. ROSENBLUTH, OF PHILADELPHIA, PENNSYLVANIA.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 561,816, dated June 9, 1896.

Application filed January 22, 1896. Serial No. 576,429. (No model.)

To all whom it may concern:

Be it known that I, EDWIN M. ROSENBLUTH, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Lanterns, of which the following is a specification.

My invention relates to lanterns of the character designed for use in connection with vehicles, and especially with bicycles, and its object is to simplify and improve the construction of said lanterns.

In the accompanying drawings I show and herein I describe a good form of a convenient embodiment of my invention, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the accompanying drawings, Figure 1 is a view in side elevation of my improved lantern. Fig. 2 is a central vertical partly sectional elevational view of the same. Fig. 3 is an elevational view of my improved lantern, sight being taken from the rear. Fig. 4 is a transverse plan of the structure, section being supposed on the dotted line 4 4 of Fig. 2. Figs. 5 and 6 are horizontal sectional plans, sections being supposed taken on the dotted lines 5 5 and 6 6, respectively, of Fig. 2. Fig. 7 is a top plan view of the chimney. Fig. 8 is a sectional plan, section being supposed just above the bracket. Fig. 9 is a view in side elevation of the lamp removed from the casing. Fig. 10 is a fragmentary view of the top of the chimney, illustrating one of the tongues $C^{\times}$. Fig. 11 is a fragmentary view of the deflecting-plate, illustrating one of the tongues $d^{\times}$.

Similar letters of reference indicate corresponding parts.

The casing of my improved lantern may be considered as composed of a lamp-chamber A, a reflector-chamber B, and a chimney C, as clearly shown in the drawings.

The reflector-chamber is of any preferred general configuration and is shown as provided with a front lens *b*, mounted in a door or lens-frame *b'*, hingedly connected to the flaring mouth of the reflector-chamber, which lens and frame serve as a door to the reflector-chamber and may be opened in the usual manner to ignite the lamp, and with two side lenses $b^{\times}$ and a rear lens b^{2}, the said lenses $b^{\times}$ and b^{2} being of small diameter as compared with the lens *b*. The result of this arrangement is that when the lamp is lighted the light is shown on all four sides of the lantern, so that those approaching the vehicle from the rear, as well as those approaching from the front, see the light and are apprised of the presence of the vehicle, liability of the vehicle being run down being thereby very much diminished.

The body of the reflector-chamber may be made of any usual metal, and I therefore form it of or plate its interior with a metal capable of taking a very high polish, so that when said interior is thus polished the illuminating capacity of the lantern will be increased by reflection.

The body of the reflector-chamber is provided with a top opening $B^{\times}$, Fig. 2, inclosed by the chimney-tube C, secured upon the top of the said chamber, the upper end of which tube is flared outward in the usual manner and provided with a cap D of novel construction. The cap D, as shown in Figs. 2, 5, 6, and 7, consists of a deflecting-plate *d*, supported over the mouth of the chimney C, and of a perforated plate *e*, supported over said deflecting-plate, which it exceeds in diametric extent, said plate *e* being provided with a rim or flange *e'*, which depends below the edge of the flaring mouth of the chimney.

In order to cheaply and yet neatly and strongly retain the parts in the relationship described, I resort to the following arrangement:

$C^{\times}$ are a series (four being shown) of tongues extending upwardly from the outer edge of the chimney C and preferably integral with its substance, said tongues being as to their upper ends narrowed so as to form projecting clips C'. These clips C' lie one in each of a corresponding series of recesses formed in the deflecting-plate, the opposing edges of which recesses rest upon the shoulders formed in the tongues $C^{\times}$, and the clips C' of said tongues are, when said deflecting-plate has been adjusted to proper relationship with said tongues, bent over upon the upper surface of the plate, with the result that said plate will be very firmly held in position.

The plate *d*, Figs. 5 and 11, is provided with a series of tongues $d^{\times}$, preferably formed integral with it and disposed at intervals about

its margin. These tongues $d^{\times}$ are narrowed at their upper ends, so as to form clips d^{2}, which take into openings formed in the plate e, such openings being only large enough to receive the clips d^{2}, but not the bodies of said tongues $d^{\times}$. When the clips d^{2} of said tongues $d^{\times}$ are entered through said openings, the opposing edges of the openings rest upon the shoulders formed in such tongues $d^{\times}$, and obviously by the turning down of said clips upon the upper surface of the plate e said plate will be very firmly secured in position.

As will be understood, in the construction of the cap referred to, all soldering and riveting of parts is dispensed with and a very simple, strong, and inexpensive structure formed.

The lamp-chamber A is a shell, conveniently of circular plan, the upper end of which is soldered, riveted, or otherwise secured to the lower portion of the reflector-chamber, in the base of which reflector-chamber a suitable opening is formed for the wick-tube.

The lamp-chamber A consists of the body a, provided with the removable saucer-base a', and the neck $a^{\times}$.

The wall of the lamp-chamber is preferably provided with an annular projecting enlargement a^{2} at the junction of its body and neck, said enlargement being intermediate and continuous of said body and neck. a^{3} are air-openings formed in said enlargement a^{2}.

The saucer-base a' of the lamp-chamber is conveniently formed as a saucer-shaped shell of diameter in excess of that of the body of the lamp, the upwardly and inwardly extending rim of which base is provided with the depending flange a^{5}, Fig. 2, which accurately fits the exterior of and is in threaded engagement with the lower portion of the exterior face of the body of the lamp-chamber.

F is a lamp of any preferred construction, provided with the wick-raising shaft f and the wick-tube f', the body of said lamp being of such diameter as to snugly fit within the body of the lamp-chamber, and said lamp being as a whole of such height that when placed in said chamber its wick-tube projects through the wick-tube opening B^{2} up into the reflector-chamber.

The side and shoulder of the lamp-chamber is, as shown in Figs. 1 and 8, provided with an opening $A^{\times}$ for the wick-raising shaft f and its head.

When the parts are assembled as shown in the drawings, and it is desired to refill the lamp, the saucer-base a' is rotated to the left to unscrew it from the body of the lamp-casing and then lowered away from the casing, and the lamp, being supported in the casing only by said base, of course descends with it until clear of the casing, the saucer-base being retained in the hand of the operator and the lamp resting in said base. In this descent of the lamp the wick-raising shaft f of course descends through the opening $A^{\times}$, Fig. 8, in the top of the lamp-casing.

When the lamp has been refilled in the usual manner, the saucer-base is, with lamp upon it, carried below the casing and then raised, elevating the lamp into the position shown in Fig. 2, the wick-raising shaft passing through the opening $A^{\times}$, Fig. 8, and when the flange a^{5}, Fig. 2, of the saucer-base encounters the lower edge of the body of the lamp-casing said saucer-base is rotated to the right to secure it upon said body. This rotation is continued until the wick-raising shaft encounters the upper end of the opening $A^{\times}$.

As will be understood, the operation of removing and replacing the lamp is accomplished without contact of the fingers of the operator with the lamp itself, and thus the liability of the operator's fingers to become oily from such contact is obviated.

In the filling of the lamp, if too much oil is poured therein, any ordinary excess or overflow of oil or any oil jarred out in the running of the wheel trickles or crawls down the side of the lamp and accumulates in said saucer-base.

When the lamp is by the cap forced up into place in the lamp-chamber, the wick-shaft encounters and remains in contact with the upper edge of the slot $A^{\times}$, with the result that said edge holds the shaft against rotation. The tendency of the wick, under the agitation or jarring to which the lamp is subjected in the travel of the machine, to lower itself, occasioning incidentally the rotation of the wick-shaft, is thus, by preventing the undue rotation of the wick-shaft, overcome.

G, Figs. 1, 2, 3, and 8, is an improved bracket especially designed for use in connection with my lamp. This bracket is preferably made, as shown, of a continuous length of heavy wire, the intermediate portion of which is bent into circular form so as to closely clasp the body of the lamp, being situated in a groove H, formed for it in the neck of the lamp-chamber, and the extremities of which are adapted to engage a fixed support. The projecting extremities of the wire extend to the rear and are bent outwardly and then inwardly to form the two return-bends designated g' g^{2}, the mouths of which oppose each other, and which return-bends are adapted to be seated upon the respective opposing edges of the fixed support I, (shown in dotted lines in Fig. 3,) and supposed attached to a front fork or to the axle of the steering-wheel or to any other portion of the framework.

g^{3} is a ring which incloses the projecting extensions of the wire G, and which when forced toward said return-bends tends to draw them together and to tighten their clasp upon the fixed support. If desired, the outside faces of said extensions may, as shown in Fig. 8, be roughened or serrated to give said ring g^{3} a more secure hold.

g^{4} g^{5} are a corresponding pair of return-bends which are counterparts of the bends g' g^{2} and are situated below but in line with

said bends g' g^2 and are connected therewith, respectively, by shanks g^6 g^7. Said shank g^6 and return-bend g^4 are continuous of the extension in which the return-bend g' is formed, and said shank g^7 and return-bend g^5 are continuous of the extension in which the return-bend g^2 is formed.

As will be obvious, the return-bends g^4 g^5 reinforce the clasp of the bracket upon the holder I.

As will be understood, the arrangement shown is such that the lantern will be held some distance to the side of the steering-wheel of the bicycle, and therefore the rear light or opening of said lantern will be visible to a person approaching the machine from behind.

Having thus described my invention, I claim—

1. In a vehicle-lantern, in combination, a reflector-chamber, a lamp-chamber connected with or formed as a depending continuation of said reflector-chamber, and consisting of a body the neck or upper end of which is of reduced diameter and embodies a slot, a lamp removably mounted or contained in said lamp-chamber and so arranged that its wick-shaft projects through said slot, and a cap or base adapted to be applied to the lower end of the lamp-chamber and when seated thereon to force the lamp upward to cause its wick-shaft to bear against the upper edge of the slot, substantially as set forth.

2. In a vehicle-lantern, in combination, a reflector-chamber, a lamp-chamber connected with or formed as a depending continuation of said reflector-chamber and consisting of a body, the neck or upper end of which is of reduced diameter and embodies a slot, a lamp removably mounted or contained in said lamp-chamber and so arranged that its wick-shaft projects through said slot, and a cap or base adapted to be screwed upon the lower end of the lamp-chamber and when screwed home to force the lamp upward to cause its wick-shaft to bear against the upper edge of the slot, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 20th day of January, A. D. 1896.

EDWIN M. ROSENBLUTH.

In presence of—

THOS. CALDWELL, Jr.,

JOHN G. RAPP.