

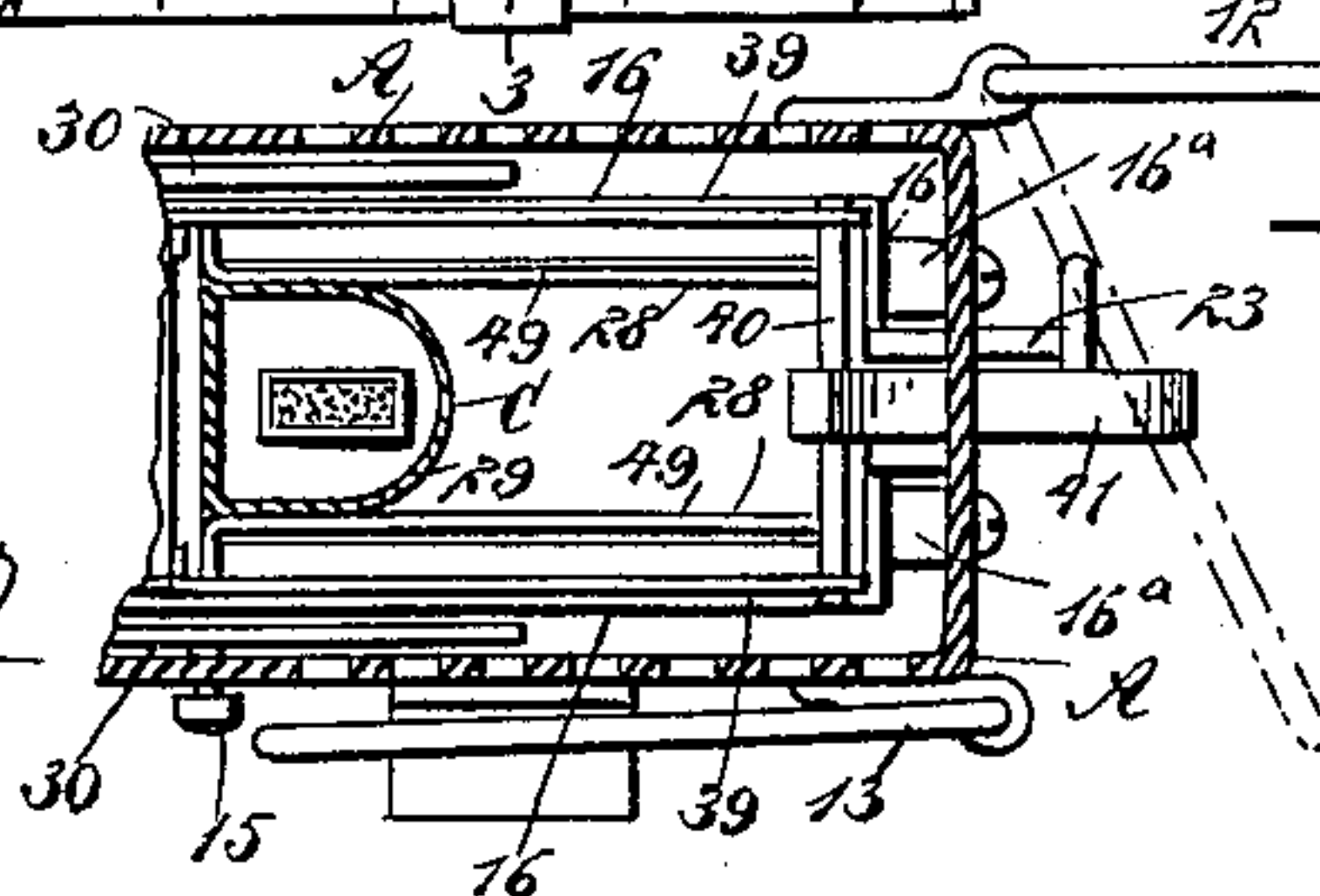
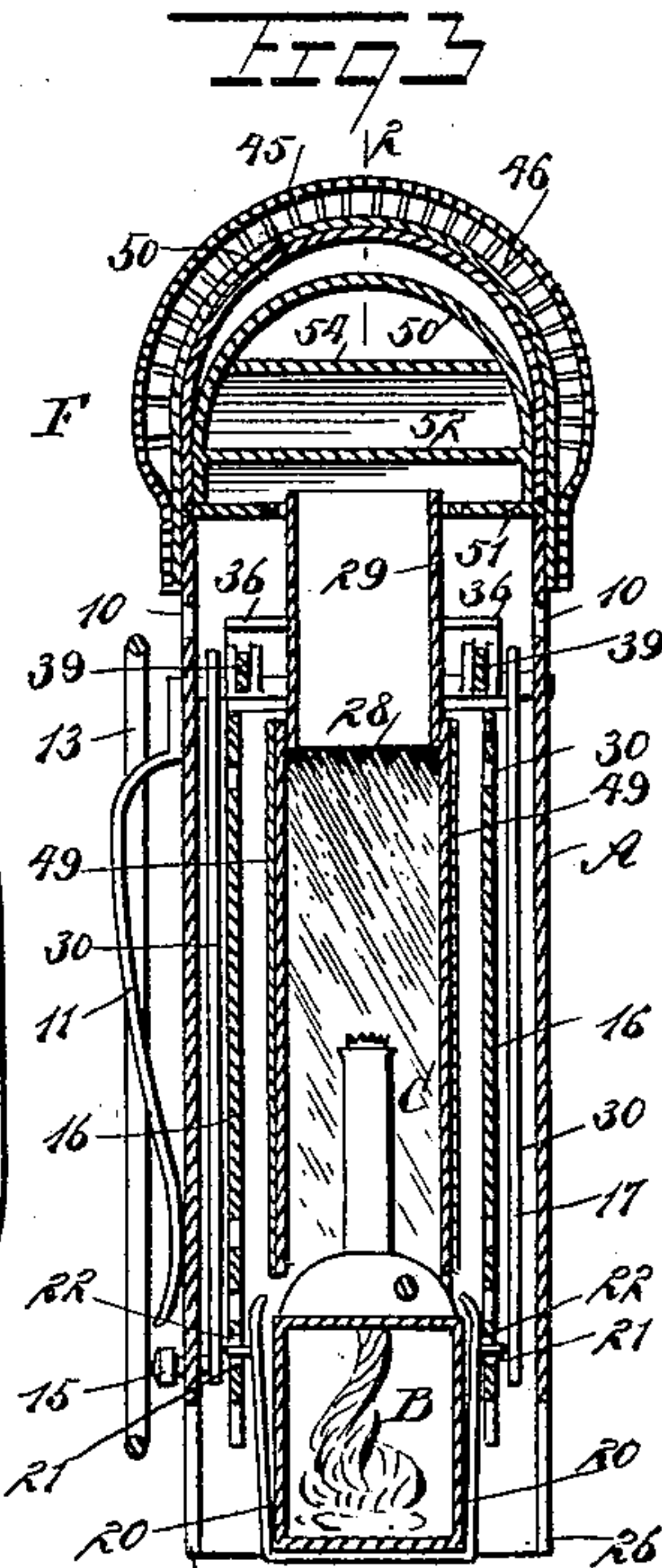
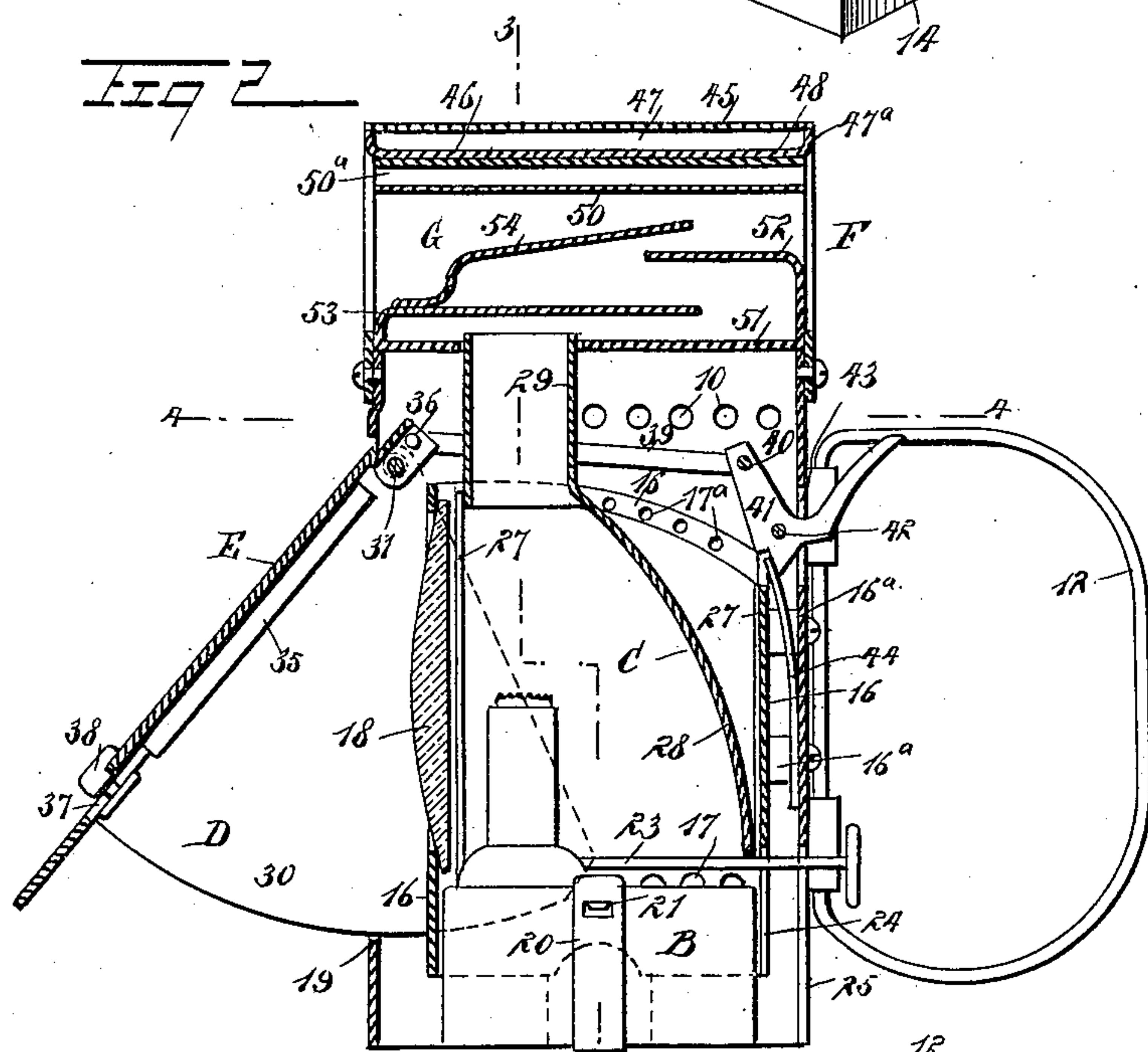
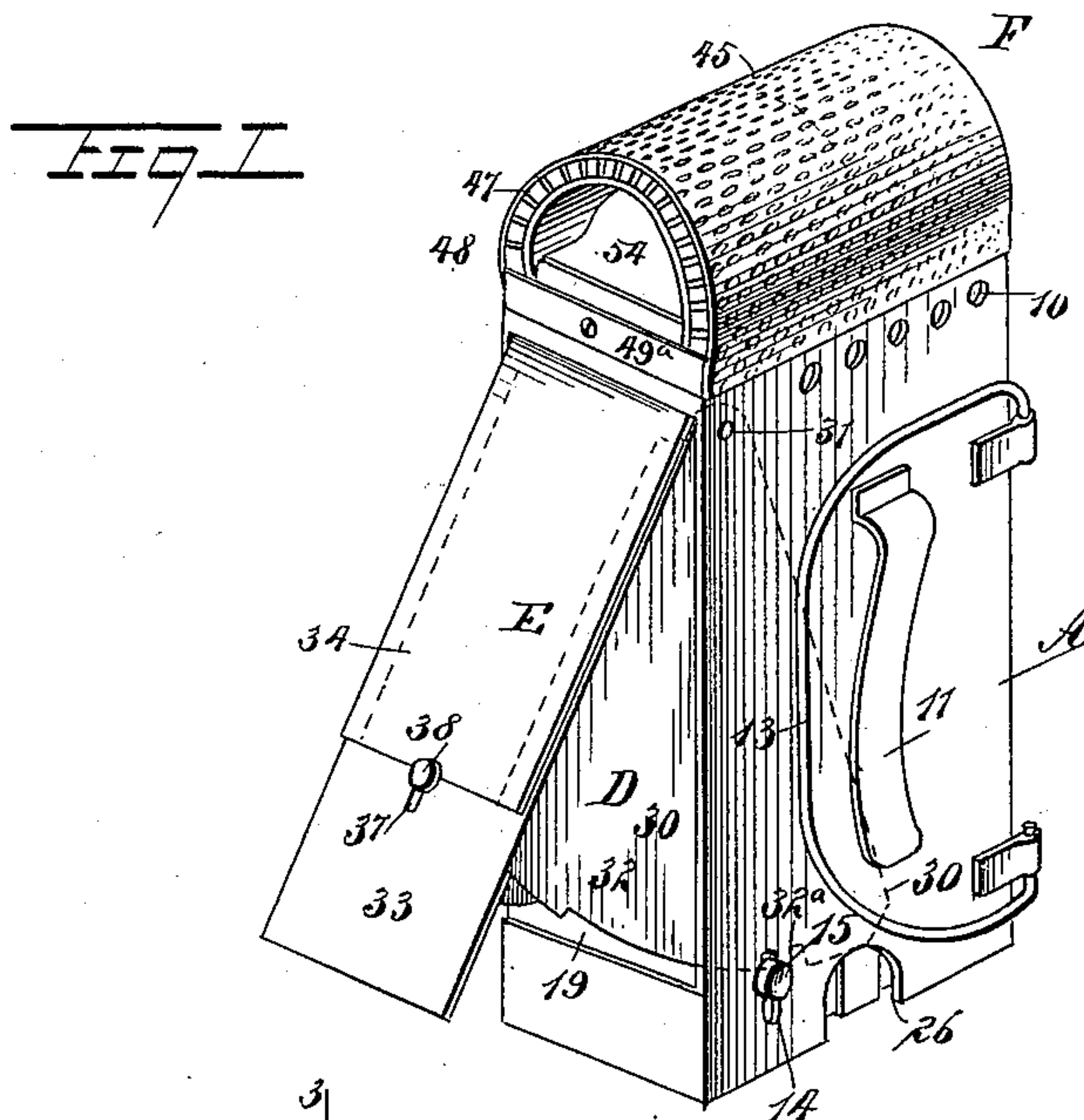
No. 614,341.

Patented Nov. 15, 1898.

R. M. G. PHILLIPS.
DARK LANTERN.

(Application filed Apr. 6, 1898.)

(No Model.)



WITNESSES:

H. Walker
J. Fletcher

INVENTOR

R. M. G. Phillips
BY Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROSS MERRITT GRISWOLD PHILLIPS, OF LOS ANGELES, CALIFORNIA,
ASSIGNOR OF ONE-HALF TO JOSEPH A. SMITH, OF SAME PLACE.

DARK LANTERN.

SPECIFICATION forming part of Letters Patent No. 614,341, dated November 15, 1898.

Application filed April 6, 1898. Serial No. 676,656. (No model.)

To all whom it may concern:

Be it known that I, ROSS MERRITT GRISWOLD PHILLIPS, of Los Angeles, in the county of Los Angeles and State of California, have
5 invented a new and useful Improvement in Dark Lanterns, of which the following is a full, clear, and exact description.

The object of my invention is to provide a dark lantern of simple, durable, and economic
10 construction and to provide a means whereby two slides are operated from a single trip or lever, one slide acting to direct the light downward and the other slide when opened permitting the light to shine straight ahead.

15 Another object of the invention is to provide a means whereby the slides may be conveniently locked in their open position and whereby, furthermore, the entire lantern may be comparatively cool even after the lamp
20 therein has been lighted for a length of time.

Another object of the invention is to provide a convenient means for placing the lamp within the body of the lantern or removing the lamp therefrom and to also provide a
25 means whereby the lamp will not be affected by currents of air, thus to a great extent obviating smoking of the lamp and preventing the obnoxious odors incident to the use of ordinary lanterns of this type.

30 The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying
35 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the lantern. Fig. 2 is a vertical section on the line
40 2 2 of Fig. 3. Fig. 3 is a vertical section on the line 2 2 of Fig. 2, and Fig. 4 is a horizontal section on the line 4 4 of Fig. 2.

The body of the lantern consists of a casing which may be given any shape, but is by
45 preference made with straight front, rear, and side surfaces. The casing A is provided at or near its upper edge with a series of apertures 10 for the admission of air, and at one side is provided with a clamp 11, whereby the
50 lantern may be attached to a belt, if desired. At each side of the back of the lantern a han-

dle is pivoted, the two handles being designated as 12 and 13, and the handle 12 is made to extend farther upward than the handle 13, for a purpose to be hereinafter set forth. 55

In the side of the lantern at which the clamp 11 is located a slot 14 is made near the lower end of said side, and a pin 15 is carried through the said slot and is adapted to slide therein, the pin being also so shaped that it
60 cannot be withdrawn from the said slot.

An auxiliary casing 16 is located within the main casing. The auxiliary casing is of less dimensions than the main casing and is spaced therefrom at all sides. The auxiliary
65 casing 16 consists of two side pieces, the top portions of which are usually given a downward and rearward slant, and a back section, an open panel being formed at the front to receive a lens 18, and preferably at the top
70 and bottom of the sides of the auxiliary casing 16 apertures (designated as 17 and 17^a) are made for the admission of air, as shown best in Fig. 2. The auxiliary casing is attached to the main casing preferably through
75 the medium of brackets 16^a, located at the back portions of said casings. An opening 19 is made in the front of the main casing, and the lens 18 is placed back of this opening.

The lamp B may be of any improved con-
80 struction, and the burner of the lamp is preferably located near its forward end. A spring-arm 20 is located at each side of the lamp, and each spring-arm is provided with an outwardly-extending tongue 21, and when the
85 lamp is carried upward within the outer and the auxiliary casing, as shown in Figs. 2 and 3, the tongues 21 will enter openings 22 made in the sides of the auxiliary casing, as shown particularly in Fig. 3. The wick-spindle 23
90 extends beyond the outer or main casing A, being passed through slots 24 and 25 made, respectively, in the auxiliary and the main casing, usually at the rear, as shown in Fig. 2. Openings 26 are made in the bottom of
95 the main casing A at each side in order that the spring-arms 20 on the lamp may be operated.

The chimney C for the lamp consists, preferably, of two side pieces 27, between which
100 side pieces at the rear a reflector 28 is secured, the front of the chimney C and that part at

the rear of the lens 18 being open, and the reflector and front portion of the chimney connect with a circular section 29, which constitutes the top of the chimney and extends slightly beyond the top of the main casing.

Two slides D and E are employed, both of which slides may be operated together or one independent of the other. The slide D consists of two side pieces 30, which are somewhat triangular, and their lower and wider edges are convexed, while at the contracted portions of the side pieces they are pivoted upon a pin 31, secured in the casing at the upper portion of the opening 19. The side pieces 30 of the slide D are connected at the front by a plate 33, which is provided with an opening 34 the full length of the lens 18. The slide E consists of a plate having a panel 35 upon its inner side adapted to neatly fit into the opening 34 in the front of the slide D, and the plate or body of the slide E is provided with an extension 36 at the top, which extension is likewise pivoted on the pin 31. A slot 37 is made in the front plate 33 of the slide D, adjacent to the bottom of the opening 34, and a double button 38 has movement in this slot, the outer portion of the button being capable of extending over the lower end of the slide E, while the inner portion of the button is capable of being slid over that portion of the main casing which is at the bottom of its front opening 19. When the button is slid upward, the slide E is locked to the slide D, and when the two slides are closed and the button 38 is slid downward the inner slide D will be locked to the casing.

Bars 39 are attached to each side of the upwardly-extending portion 36 of the slide E. The bars 39 are connected at their rear ends by a rod 40, and one member of an angle-lever 41 is secured to the rod 40, the other member extending out through an opening 43 at the rear of the main casing. The pivot for the lever is designated as 42, and the lever is held normally in a position to keep the slides closed by means of a spring 44. (Shown best in Fig. 2.) The outer end of the lever is preferably given an upward inclination, and when the two slides are connected and the outer end of the lever is pressed downward the two slides will be carried from the body and held at an inclination thereto, so as to throw the direct light from the lens downward, and the slide may be held in this position, which is shown in Figs. 1 and 2, by sliding the pin 15 upward until it shall enter a recess 32^a, made in the lower edge of a side piece of the slide D, the recess being near the rear of the slide, as shown in Fig. 1, and when the slides are closed against the body a shoulder 32 will engage with the said pin, preventing the slides from being forced inward beyond their proper position. The slides being closed and it is desired to direct the light ahead, the button 38 is carried downward, securing the inner slide D to the main casing in the manner heretofore de-

scribed. The outer slide E will now be free to move from the inner slide the moment that the outer end of the lever 41 is pressed downward. The slide E may be carried to a horizontal position and held in this position by carrying the longer handle 12 over the handle end of the lever 41.

The body of the lantern is provided with a cap F. This cap is so made as to keep substantially cool and to prevent drafts of air from interfering with the flame. The cap consists of an outer or main perforated shell 45 and an inner shell 46, spaced therefrom to provide a chamber 47, (shown in Fig. 2,) and at each end of the inner shell 46 an apertured flange 47^a is formed, which flanges connect with the end portion of the main shell 45. In order to render the cap as cool as possible, a sheet 48 of mica is made to closely engage with the inner face of the inner shell, and sheets 49 of mica are also placed for the same purpose between the sides of the chimney C and the sides of the inner or auxiliary casing 16 of the body of the lantern, as shown in Fig. 3.

At each end of the combined shells 45 and 46 bottom transverse bars 49^a are provided, by means of which the combined shells are screwed or otherwise secured upon the top portion of the main casing. A deflecting-box G is removably placed within the combined shells, and this box consists of a bottom 51, sides extending upward from the bottom, and an arched top 50, the curvature of the top 50 being less than the curvature of the combined shells 45 and 46, providing a chamber 50^a between the upper portion of the deflecting-box and the said shells, through which chamber the air may circulate through the end portions of the cap. An opening is made in the bottom 51 of the deflecting-box to receive the upper tubular portion 29 of the chimney C, as shown in Fig. 2. An angular plate 52 is located at one end of the deflecting-box, extending from the bottom of the box upward and from thence horizontally inward within the box, as shown in Fig. 2. At the opposite end of the deflecting-box a second angular plate 53 is provided, which extends from the end upward not as far as the corresponding member of the opposing plate 52; but the horizontal member of the plate 53 extends farther within the deflecting-box than the plate 52, terminating at a point below the horizontal member of the plate 52, as is also shown in Fig. 2. A third deflecting-plate 54, also of angular construction, is attached to the upper portion of the deflecting-plate 53 near the outer end of said latter plate, and the third deflecting-plate 54 extends upward from the plate 53 and thence diagonally within the deflecting-box over the horizontal member of the deflecting-plate 52. In this construction the outlet for the products of combustion is circuitous, and the air cannot in any manner enter the body of the lantern with sufficient force to harm the flame.

The parts of the lantern are readily disconnected for the purpose of cleansing it or for repair, and the parts may be readily and conveniently assembled.

5 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a dark lantern, two slides, an operating device common to both slides, and means
10 for locking one slide to the other, for the purpose set forth.

2. In a dark lantern, two pivoted slides for the lens, and a locking device for connecting the slides, whereby one slide may be opened
15 independent of the other or both slides may be opened together, as and for the purpose specified.

3. The combination, with a dark lantern and its lens, of a slide pivoted to the lantern,
20 consisting of side pieces arranged to extend along the sides of the lens-support, and a front plate having an opening for the passage of light, and a locking device adjacent to said opening, a second pivoted slide arranged to
25 cover the opening in the front of the first-named slide, and also adapted for engagement with the said locking device, and means, substantially as described, for rocking one of the slides upon its pivot, for the purpose
30 set forth.

4. In a dark lantern, the combination, with the casing of the lantern and its lens, of an inner slide comprising pivoted side pieces arranged to pass at the sides of the lens-support,
35 and a front piece having an opening for the passage of light and a locking device adjacent to the opening, an outer slide consisting of a pivoted plate arranged to normally close the opening in the inner slide, the outer slide being adapted for engagement by the said locking device, a lever, and a connection between the lever and the outer slide, substantially as described.
40

5. In a dark lantern, the combination, with the casing and the lens, of an inner slide pivoted at a point above the lens and comprising side pieces adapted to pass at the sides of the lens, and a front piece having an opening therein for the passage of light, and a locking
45 device, an outer slide pivoted on the same

support as the inner slide and arranged to normally close the opening in the front of the inner slide, and furthermore arranged for engagement with the locking device of the inner slide, a lever and a connection between the
55 outer slide at a point above its pivot and the said lever, and means, substantially as described, for locking either slide in an open position, as specified.

6. In a dark lantern, the combination, with
60 a body, of a cap therefor, the cap consisting of an outer perforated shell, an inner shell and a perforated connection between the two shells, the shells being adapted for attachment to the said body of the lantern, and a
65 deflecting-box removably located within the shells, comprising a body portion open at both ends and having a bottom adapted to receive the chimney of the lantern, and a top which is spaced from the combined shells, angular deflecting-plates located within the said
70 box, one at each end, the said plates having their horizontal members at different elevations and extending one over the other, and a third angular deflecting-plate attached to
75 one of the end deflecting-plates, and carried over the opposing end deflecting-plate, for the purpose set forth.

7. In a dark lantern, the combination, with a main casing open at the bottom and provided
80 with a deflecting-cap, a second casing spaced from the main casing and fixedly attached thereto, the inner casing being provided with a lens, of a detachable lamp arranged to enter the inner casing, a chimney for the said lamp,
85 having a deflector and being in connection with the said deflecting-cap, a double slide for the lens, the slides being capable of being opened independently or together, and means, substantially as described, for operating the
90 said slides, as specified.

8. In a dark lantern, a plurality of slides, and means for operating the slides together, and also for operating one slide independently, for the purpose set forth.

ROSS MERRITT GRISWOLD PHILLIPS.

Witnesses:

JOHN MALCOM GLASS,
AVERY JACKSON BRADISH.