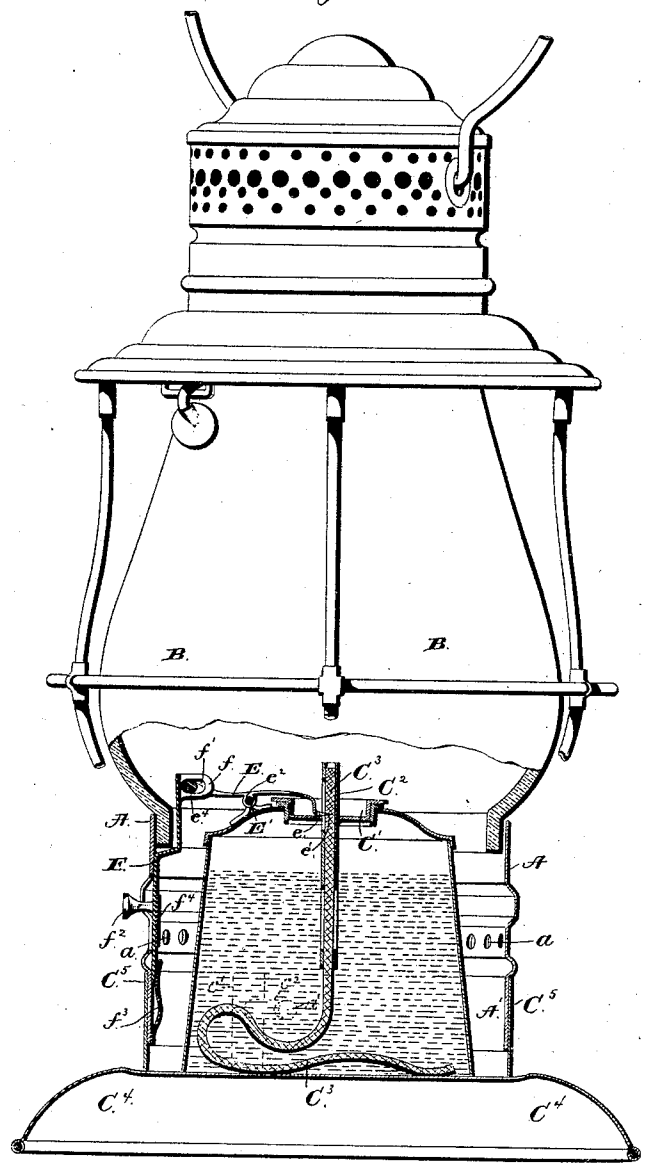
(No Model.) 2 Sheets—Sheet 1.

A. M. SCHILLING.

LANTERN.

No. 409,506. Patented Aug. 20, 1889.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

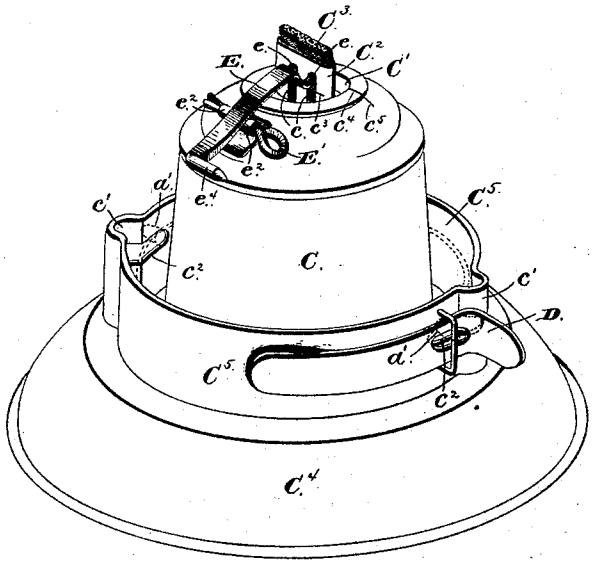


Fig. 3.

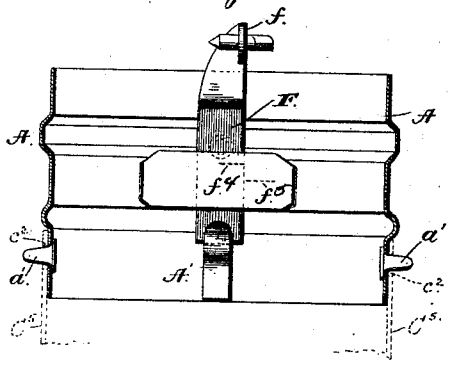
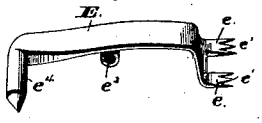


Fig. 4.



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UNITED STATES PATENT OFFICE.

AUGUST M. SCHILLING, OF CHICAGO, ILLINOIS.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 409,506, dated August 20, 1889.

Application filed November 19, 1888. Serial No. 291,199. (No model.)

To all whom it may concern:

Be it known that I, AUGUST M. SCHILLING, of Chicago, in the county of Cook, and in the State of Illinois, have invented certain new and useful Improvements in Lanterns; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 shows a central vertical section of a lower portion of a lantern with my invention applied thereto, the upper portion of the lantern being shown in elevation; Fig. 2, a perspective view showing the lamp as provided with my wick-adjuster removed from the lantern-frame; Fig. 3, a detail view showing in elevation the inner side of the lantern-frame with my operating-slide for working the wick-adjuster in place therein; and Fig. 4 a detail perspective view, on an enlarged scale, of the wick-adjusting lever.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to provide an improved attachment for lanterns, whereby the lamp-wick can be moved up or down, as desired, from the outside of the lantern without opening the casing or removing the lamp; and to this end my invention consists in the wick-adjusting mechanism and in the construction, arrangement, and combination of the parts thereof, as hereinafter specified.

The lantern to which I show my attachment applied in the drawings is of the ordinary form and construction of oil-lanterns now on the market and in general use; but I desire it to be understood that I do not limit myself to any particular form or style of lantern-body, as my wick-operating devices can be applied to any one of a number of different kinds of lanterns where it is desirable or advantageous to provide means capable of operation from the outside of the lantern for adjusting the height of the wick to give the desired flame or lowering it so as to extinguish the light.

As the form of lantern is not essential, but can be varied indefinitely without departure from my invention, the construction of the lantern frame and top and the means for holding the globe in place need not be described herein.

In the drawings, A designates the lantern-frame, and B the globe held therein. The base or lower portion of this frame is, as shown, in the form of a ring or tube A′ of a diameter to surround the lamp-body C and leave a space around such body and the ring's interior wall. In such ring or tube are the usual air-openings *a a* for admitting air into the space around the lamp-body, from which it can pass upward on all sides of the lamp-burner C′. This burner, as shown, is of the ordinary well-known kind adapted to be screwed into the opening in the top of the lamp-body and having a flat wick-tube C^2, in which is the wick C^3. In one of the flat sides of this tube are two narrow upright slots *c c*, through which the wick can be reached by my adjusting device to be described.

In the form of lantern illustrated in the drawings the lamp has a broad base C^4, extending outward on all sides from the lamp-body. Upon this base is the upright annular flange or fixed ring C^5, adapted to receive within it the lower annular portion A′ of the lantern-frame. On opposite sides of such portion of the frame are the two outwardly-projecting studs or pins *a′ a′*, and at opposite sides of the flange or fixed ring C^5 on the lamp-base are the radial offsets *c′ c′*, adapted to accommodate or allow the passage of the studs *a′ a′* as the lamp and frame are put together with the flange C^5 surrounding the bottom of the lantern-frame. In this flange or ring C^5, on opposite sides of the opposite offsets *c′ c′*, are the horizontal slots c^3 c^3, each one extending along the ring a short distance and then out on the side of the respective offset *c′*. With these slots as described and shown, if, with the lamp and lantern-frame together so that the pins or studs *a′ a′* are in the offsets *c′ c′*, the frame and lamp be turned with reference to each other the studs can be moved out of the offsets into engagement with the slots, so as to fasten the lamp to the frame. A spring-catch D or other desired form of locking device can be used to engage one of the studs or pins, so as to prevent any accidental turning of the lamp body or frame to disengage the studs or pins from the slots.

Pivoted on top of the lamp-body C opposite the slotted side of the wick-tube of the burner is the lever E, having on its inner end a fork

whose arms *e e*, provided with teeth or points *e' e'*, are adapted to project into the slots *c c* in the wick-tube and engage the wick. The pivotal support of the lever is the pin E', supported in the two eyes or loops e^2 e^2 on the lamp-top and passing through a pivot-opening e^3 on the under side of the lever between the loops or eyes e^2 e^2. The outer end of the lever has a horizontal arm e^4 extending at right angles to the lever.

On the inner side of the lower annular part of the lantern-frame is the vertically-moving slide F, having on its upper end an inwardly-extending arm *f*, provided with the slot *f'*, adapted to engage the arm e^4 on the lever E. This slot extends in such direction as to allow the requisite play of the arm e^4 with reference to the slide-arm as the slide is moved up and down to actuate the lever. The slide, which can be held in place on the lamp-frame and guided in any desired way, has a pin or handle f^2 projecting outward through a slot in the lantern-frame base in position to be moved from the outside of such base. A spring f^3, pressing upon the inner side of the lower end of the slide, serves to retain the slide in any desired position into which it has been moved by the handle or knob.

I do not limit myself to any particular form of means for holding the slide in place and guiding it in its reciprocations. If, as in the lantern shown in the drawings, the annular lower part A' of the frame has a portion set inward to form an annular rib on the inner side, such set-in portion can be cut away to the width of the slide F. The sides of the cut will then serve as guides for the slide, which, above and below the cut made, rests against the inner face of the annular base of the frame. A plate f^4, bridging the slide-guiding cut in the annular rib A^2 and engaging the back or inner side of the slide, serves to keep the latter in place in said cut. The ends of this retaining-plate can be fastened in any desired way to the inner face of the annular rib A^2. If desired, this plate could be dispensed with and the slide held in place in its guideway by means of lugs or ears at the sides of the guiding-cut projecting over the inner side of the slide to engage the same.

Where the lantern-frame base has no annular inwardly-set portion, as shown in the drawings, any desired form of guide for the slide can be fastened to or formed upon the inner side of such base. The slot or cut in the latter need then be only wide enough to admit the passage and play of the slide-operating handle or knob.

The method of using and the operation of the invention, as shown and described, I briefly describe as follows: After the lamp has been filled and the burner has been secured in place on the lamp-body, so as to bring the slotted side of the wick-tube around opposite the pivotal support for the lever E, the lever is placed so that its fork-arms *e e* enter the slots in the wick-tube at points about midway of the length of such slots and the pins or teeth on the fork-arm ends engage the wick within the tube. The lever pivot-pin E' is then passed through the eyes e^2 e^2 and the pivotal opening on the lever between the eyes. If desired, a mark c^3 may be made on the wick-tube to indicate the point at which the fork end of the lever should be when the lever is being put in place. For convenience' sake another mark c^4 can be made on the burner to register with the mark c^5 on the lamp-top when the burner has been turned to bring the slotted side of its wick-tube around into the proper position; but these marks, like that on the wick-tube, are not necessary, and can be dispensed with or left off, as desired. With the slide F raised to bring its slotted arm *f* to the proper height to engage the arm e^4 on the outer end of the lever E, the lamp-body can be placed upon the frame-base and turned thereon, so as to cause locking of the lamp and frame together, as hereinbefore described. This relative turning of the lamp and lantern-frame brings the arm e^4 on the wick-operating lever into engagement with the slot *f'* in the arm *f* on slide F. By the movement of such slide up and down the wick will, through the action of lever E, be depressed to lower the wick, so as to diminish or extinguish the flame, and raised to any desired height. By the action of the spring engaging the slide, as shown and described, the slide, and consequently the wick-lever and wick, will be held at any desired adjustment. As a gage to indicate the height of the slide to bring its slotted arm in position to engage the arm on lever E when the lamp and lantern-frame are put together and turned, as set forth, a mark f^4 can be made on the outer side of the slide to register with another mark f^5 on the frame-base, when the slide is at the required height.

As will be seen from the drawings and description hereinbefore given, my wick-operating device is cheap and simple and can be applied to any of the common and well-known forms of lantern without making necessary any change in the form or construction of lantern-frame or lamp. By it the wick can be moved as desired from the outside of the lantern without opening the latter, and will be held securely against accidental movement, as by shock or jar, while the lantern is in use.

Where other means than those shown and described are used to lock the lamp in place in the lantern-frame, the slotted arm on the slide and the arm on the lever can easily be adapted to be brought into position to bring the lever-arm and slot *f''* on the slide-arm into engagement as the lamp and frame are put together.

The fastening or locking devices for the lamp can be varied indefinitely without involving any departure from my invention.

While I prefer to use a flat wick-tube and

wick, as shown, I do not limit myself thereto. Round or other shaped tubes and wicks can be employed, the shape of the toothed end of the wick-lever being changed to suit.

The pivot-pin for the wick-operating lever is made easily removable and replaceable, so that it can be taken out when the end of the lever is to be placed in the desired position for engaging the wick and readily replaced again to act as a pivot for the lever.

Having described my invention, what I claim is—

1. In combination with the burner of a lamp, a lever engaging the lamp-wick, a slide connected with the lever so as to operate the same, and means for moving the slide and holding it as moved, substantially as and for the purpose shown.

2. In combination with the burner of a lamp, a lever engaging the lamp-wick, a slide held and guided in a guideway on a suitable support and connected with the lever, and means for holding such slide from accidental movement, substantially as and for the purpose set forth.

3. In combination with the burner of a lamp, a lever engaging the wick, the slide guided in a way on a suitable support and connected with the lever, a handle to move the slide, and a spring engaging the slide to hold it from accidental movement, substantially as and for the purpose described.

4. In combination with the burner of a lamp, a lever engaging the wick and having an arm, the vertically-moving slide having an arm with a slot in it to engage the lever-arm, and means for holding the slide against accidental movement from shock or jar, substantially as and for the purpose specified.

5. In combination with a lamp body and burner having a slotted wick-tube, the pivoted lever having one end extending in through the slot or slots in the tube and adapted to engage a wick therein, and a removable pivot for such lever, substantially as and for the purpose shown.

6. In combination with a lamp body and burner having a flat wick-tube provided with two slots in one side, the lever having the forked end with arms of its fork entering the slots in the wick-tube and on their ends provided with wick-engaging teeth or points, substantially as and for the purpose described.

7. In a lantern, in combination with the lamp body and burner, the lever pivotally supported on the lamp-body, adapted at its inner end to engage the wick of the lamp, and a movable piece carried by the lantern-frame connected with the lever and adapted to be moved from the outside of the frame, substantially as and for the purpose specified.

8. In a lantern, in combination with the lamp body and burner, the lever for engaging and operating the wick, the slide supported on the lantern-frame and connected with the wick-lever, and means whereby such slide can be moved from the outside of the lantern, substantially as and for the purpose shown.

9. In a lantern, in combination with the slide supported upon the lantern-frame having a knob or handle in position to be moved from the outside of the frame, and within the frame having an arm with a slot therein, the lamp body and burner, and the wick-operating lever pivotally supported from the lamp-body having an arm to engage the slot in the arm on the slide, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of October, 1888.

AUGUST M. SCHILLING.

Witnesses:

ALBERT H. LARNED,

EUGENE G. HENRY.