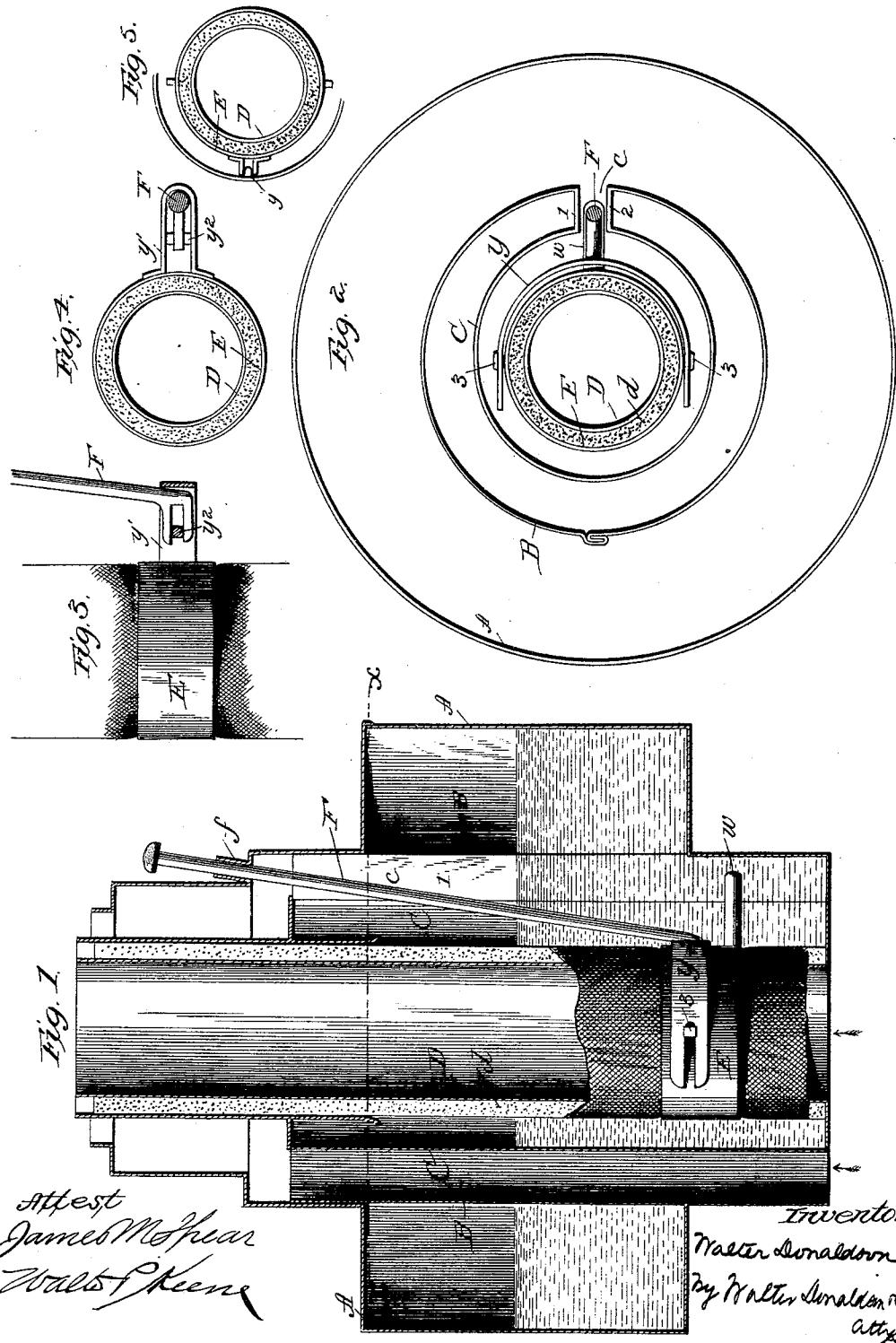


(No Model.)

W. DONALDSON.  
WICK RAISER.

No. 415,408.

Patented Nov. 19, 1889.



# UNITED STATES PATENT OFFICE.

WALTER DONALDSON, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR  
TO WM. H. WILDER, OF GARDNER, MASSACHUSETTS.

## WICK-RAISER.

SPECIFICATION forming part of Letters Patent No. 415,408, dated November 19, 1889.

Application filed June 17, 1889. Serial No. 314,583. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER DONALDSON, a citizen of the United States of America, residing at Washington, District of Columbia, 5 have invented certain new and useful Improvements in Wick-Raisers, of which the following is a specification, reference being had therein to the accompanying drawings.

This wick-raising device is designed especially for Argand lamps, and is of that class in which a draw-bar is employed, connected to the wick-sleeve and projecting upward through the body of the lamp.

My object is to arrange the draw-bar to slide through its bearings in an outwardly inclined position, so that it may be located close to the burner and yet clear the parts in its upward movement, and to provide an operating sliding connection between the draw-bar thus arranged and the wick-sleeve, which connection is operative when the draw-bar is moved, permitting the inclined sliding movement of the bar and insuring an easy action in lifting the wick without binding or displacement of the wick-sleeve.

My invention consists of an inclined sliding draw-bar, having a sliding connection with the wick-sleeve, said sliding connection being adapted to exert a lifting force uniformly on both sides of the wick, no matter what the position of the draw-bar may be.

In the drawings, Figure 1 is a central section through a lamp-body, and Fig. 2 is a horizontal section on line  $xx$  of Fig. 1. Figs. 3, 4, and 5 are detail views of modifications.

The invention is shown as applied to a lamp having an inside draft and a draft around the outside of the wick-tube.

A is the body; B, the inner body; C, the 40 wick-pit connected with the inner body by the vertical walls 1 2, forming a conduit for the oil and a chamber in which the draw-bar may work.

D is the inner wick-tube,  $d$  the wick, and 45 E the wick sleeve or band.

The draw-bar F is straight and passes through the elongated inclined bearing  $f$  in the lamp-body and inclines inwardly toward the wick extending down through the chamber c. It has sliding movement, being closely

confined in its bearings, and when drawn upon moves directly upward in its inclined position, and the inclination is such that its upper end clears the burner and other parts above the body. The point of connection 55 between the sliding inclined bar and the straight bar moves slantly, and to allow this the connection is made a sliding one. From the sleeve pins 3 3 project, and at the 60 lower end of the draw-bar there is a yoke Y, formed integral with or separate from said bar, which yoke embraces the sleeve and has slots extending approximately horizontal, which receive the pins from the sleeve. As 65 the draw-bar is moved the sleeve will be lifted centrally on each side and uniformly, and operative connection will be maintained at all times without regard to the position of the bar, as the slotted end of the yoke will 70 simply slide on the pins, but will exert the proper lifting or lowering effect when operated.

For the purpose of preventing lateral displacement of the wick-sleeve any suitable 75 guide may be provided, as a pin or tongue  $w$ , projecting into a vertical groove formed in the outer wick-tube or into the chamber of the draw-bar in the wick-pit, or a rib might be placed upon the inside of the outer tube 80 and have this engaged on each side by a projection from the wick-sleeve, as at y, Fig. 5.

In Figs. 3 and 4 a modified form of sliding connection is used. The wick-sleeve in this construction has a rigid loop y' extending 85 from its side, which has a transverse pin y''. This is engaged by the horizontal slotted extension of the draw-bar, and the arrangement is such that the bar is maintained in operative connection with the pin, its outward 90 movement being limited by the wall of the loop. The loop in this instance may extend into the conduit above mentioned and answer as a guide to prevent circumferential displacement of the wick-sleeve.

It will be understood that I do not wish to limit myself to the use of a wick-sleeve; but this device, as employed herein, is a representative one for a connection between the sliding parts and the wick.

I am aware that prior to my invention wick-raisers have been provided consisting of a draw-bar and wick-sleeve, with a detachable connection between the said bar and sleeve, and that some of these connections are adapted to have sliding movement in order to effect the detachment of the parts; but my invention differs essentially from all such arrangements, as the sliding movement is effected during the operation of raising or lowering the wick and is for the purpose of maintaining the inclined position of the draw-bar in all the varying positions of the wick-sleeve.

I claim—

- 15 1. In combination, the wick-tube, the wick, and the wick-sleeve, a draw-bar operating upwardly and outwardly, and a sliding connection between said draw-bar and sleeve, operating when the draw-bar is raised or lowered, substantially as described.
- 20 2. In combination, the wick-tube, the wick, and wick-sleeve, the straight draw-bar arranged in an inclined position and guided to have sliding movement longitudinally, and a sliding connection between said sliding inclined draw-bar and the wick-sleeve, whereby the inclination of the draw-bar is maintained without regard to the position of the said sleeve, substantially as described.

3. In combination, the wick-tube, the wick, 30 and wick-sleeve, the draw-bar having a yoke at the bottom embracing said wick-sleeve, said yoke being slotted and receiving pins on opposite sides of the sleeve, substantially as described.

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4. In combination, the wick-tube, the wick-sleeve, the draw-bar, the sliding connection between said bar and sleeve, adapted to permit variation in the relative position of the bar and sleeve in the operation of the parts, 40 and a guide for preventing displacement of the sleeve, substantially as described.

5. In combination, the wick-tube, the wick-sleeve, the upwardly-operating draw-bar with the sliding connection to the wick-sleeve, 45 the outer tube or shell having a chamber for the draw-bar, and a guide projection or tongue on the wick-sleeve extending into said chamber, substantially as described.

In testimony whereof I affix my signature in 50 presence of two witnesses.

WALTER DONALDSON.

Witnesses:

FRANK L. DYER,  
WALTER P. KEENE.