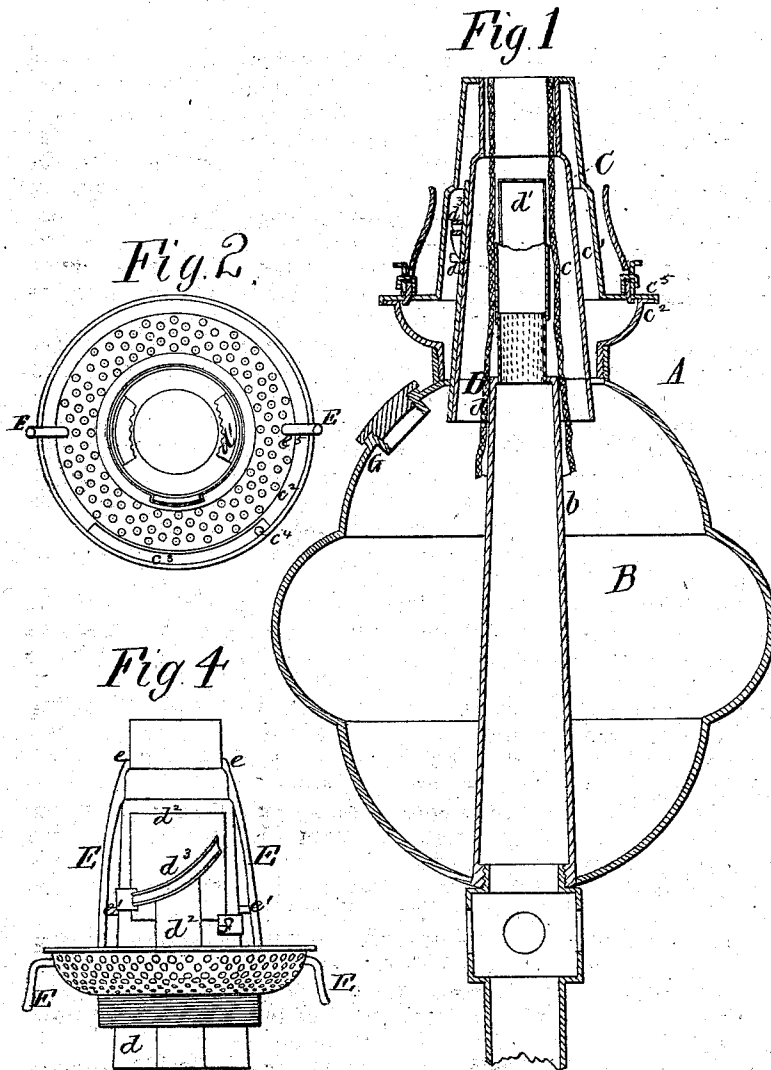


A. COMBS.

Wick-Raisers for Lamps.

No. 136,034.

Patented Feb. 18, 1873.



Witnesses
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UNITED STATES PATENT OFFICE.

ABEL COMBS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WICK-RAISERS FOR LAMPS.

Specification forming part of Letters Patent No. 136,034, dated February 18, 1873.

To all whom it may concern:

Be it known that I, ABEL COMBS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and valuable Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a sectional view of my lamp. Fig. 2 is a detail of my lamp. Figs. 3 and 4 are details of same.

My invention has reference to lamps, and my improvements thereon relate to means for raising and lowering the wick; and consist of a sliding clamp designed to take hold of the wick and raise or lower it, as required.

In the drawing, A represents the lamp, and B the globe, having a draft-tube, *b*. C represents the burner, composed of the inner cone *c* and outer cone *c'*. The inner cone *c* is screwed into the globe in the usual manner, and bears the outer cone *c'* upon the flanch *c''*. D is the sliding clamp for raising the wick, and consists of the ring *d*, to which are secured the elongated spring-catches *d'* and guide *d''*. The catches *d'* are secured at their lower ends to the inner side of the ring *d*, and have their edges bent or turned and serrated, as shown. These catches fit snugly in recesses or grooves in the cone *c*, said grooves being formed by sinking or filling in, as desired. E E are finger-pieces or pressers for actuating the catches, and consist of spring-wires secured to the cone *c* at *e*, and passing through the disk *c''* to afford a hold for the fingers. Each of these pressers bears a stud, *e'*, which pass through openings in the cone *c* and rest against the spring-catches *d'*. By pressing upon the finger-pieces E the studs *e'* are made to bear against the spring-catches *d'*, which are thus forced to engage with the wick, which lies inside of the cone *c*, and surrounding the draft-tube *b*. To raise or lower the clamp, and thereby move the wick, I provide the guide *d''*, which is secured at its lower end to the outside of the ring *d*, and moves between lugs *f* on the outside of the cone *c*. *d''* is a spiral groove on the guide *d''*, in which groove works

the pin or stud *d'*, located upon the inside of the outer cone *c'*. The outer cone in this case moves upon the flanch *c''*, and, as it turns, causes the clamp D to rise or fall by means of the engagement of the stud *d'* with the groove *d''*. In order, therefore, to raise or lower the wick, the catches *d'* are made to take hold thereof by bearing upon the pressers E. The cone *c'* is then turned, causing the clamp D to slide up or down, as desired, carrying the wick with it. It will be observed, however, that the movement of the cone *c'* is limited to about a quarter revolution, so as to prevent the stud *d'* from leaving the groove *d''*. This limitation is effected by cutting out the flanch *c''*, as shown at *c''*, and by providing a stud, *c'*, fixed on the cone *c'*, and moving in said cut *c''*. It is obvious, also, that the wick would be moved only a short distance in a quarter revolution of the cone *c'*; but to move it any length the mechanism provided is operated as follows: Having first moved the wick in the manner described, the pressure upon E E is relaxed, and the motion of the cone *c'* reversed, sliding the clamp D in an opposite direction, with the catches *d'* resting in their grooves clear of the wick. A new hold is then taken on the wick, and the operation repeated as before.

I have shown the cone *c'* with stud *d'* in connection with a tubular wick; but it may also be used with a flat wick by making one side of the tube incasing said wick convex, upon which the guide *d''* will move.

I have described and illustrated two spring-catches, with corresponding recesses and finger-pieces, though the burner may be constructed with only one of each; I prefer, however, to make two, as shown.

Besides the obvious advantages of a device which will insure absolute certainty in moving the wick, which I claim for mine, I can use any thickness of wick, and am only limited as to the length of the wick by the capacity of the globe for receiving and holding the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The inner cone *c*, when constructed with grooves or recesses for the reception of the spring-catches *d'*, as specified.

2. The sliding clamp D, constructed, substantially as specified, of the ring d , spring-catches d^1 , and guide d^2 .

3. In combination with the spring catches d^1 , the pressers E, as described.

4. In combination with the sliding-clamp D, having the groove d^3 , the outer cone c^1 , provided with the stud d^4 .

5. In combination with the stud c^3 upon the cam c^1 , the flanch c^2 , cut away as shown, to

limit the rotation of said cone, for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ABEL COMBS.

Witnesses:

W. W. DOUGHERTY,
M. DANL. CONNOLLY.