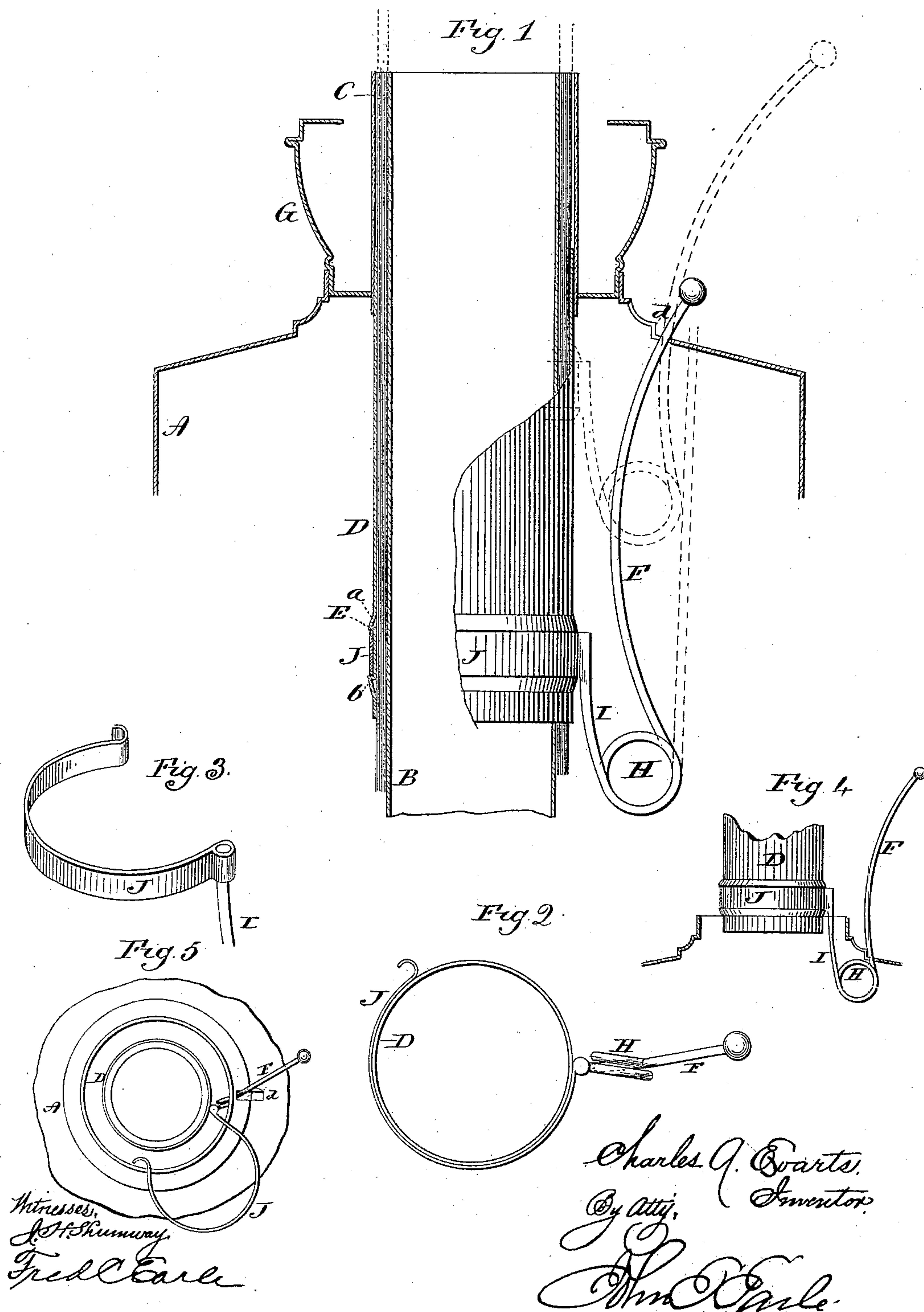


(No Model.)

C. A. EVARTS.
LAMP WICK ADJUSTER.

No. 387,156.

Patented July 31, 1888.



UNITED STATES PATENT OFFICE.

CHARLES A. EVARTS, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
BRADLEY & HUBBARD MANUFACTURING COMPANY, OF SAME PLACE.

LAMP-WICK ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 387,156, dated July 31, 1888.

Application filed February 20, 1888. Serial No. 264,600. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. EVARTS, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lamp-Wick Adjusters; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a vertical section of so much of the lamp as is necessary to illustrate the invention, showing the wick-adjuster and a portion of the wick-holder, side view; Fig. 2, a top or plan view of wick-holder and the wick-adjuster attached; Fig. 3, a perspective view of wick-adjuster, clamp detached; Fig. 4, the position of the parts as when the wick-holder is to be removed or introduced; Fig. 5, a top view of lamp-fount, illustrating the method of attaching and detaching the wick-adjuster from the wick-holder.

This invention relates to an improvement in that class of lamps in which the wick is of tubular shape and in which air is usually supplied through a central tube within the wick, commonly called "central-draft lamps," the invention, however, being applicable to lamps generally in which the wick is of tubular form.

This invention relates particularly to an improvement in the mechanism for adjusting the wick.

In the larger lamps of this class the wick is supported in a holder which is in itself movable up and down with the wick and is also removable from the lamp. Usually this class of wick-holders has been adjusted by means of a rod extending into the fount outside the burner and so as to engage the wick, and so that by lifting the rod the wick would be raised accordingly, or vice versa. In some cases the adjusting-rod and entire wick-adjusting mechanism is removable from the lamp with the wick-holder and wick. In other cases the adjusting mechanism is not removable from the lamp, but is made detachable from the wick-holder. It is upon the latter class of wick-adjusters that my invention is an improvement; and it has for its object to make

a firm engagement between the wick-adjusting rod and the wick-holder, but yet one which may be brought substantially outside the lamp-fount, so that the engagement or disengagement may be produced within easy access, but without the removal of the wick-adjuster from the fount; and it consists in the construction hereinafter described, and more particularly recited in the claims.

In illustrating the invention I show only so much of a fount as is necessary to the understanding of my invention.

A represents the fount, which may be of any of the usual forms; B, the inner central stationary tube, through which air is supplied within the flame to aid in the support of combustion. This tube in external diameter corresponds to the internal diameter of the wick C, so that the wick may be set over the tube and readily moved up and down for adjustment.

D represents the wick-holder. This is a tube whose internal diameter corresponds to the external diameter of the wick, and so that the wick may be set within it and engaged therewith in the usual or any suitable manner, so that as the wick-holder is raised or lowered the wick which it carries will move accordingly.

Near the lower end of the wick-holder an annular groove, E, is formed, and is best made by an internal impression in the surface of the holder to throw out annular ribs *a b* upon the outside. These two ribs form opposing shoulders and produce the groove E.

The wick-adjuster consists of a wire rod, F, which extends into the fount through an opening, *d*, outside the burner G, as represented in Fig. 1. This rod extends to a point below the annular groove E in the wick-holder, and is there bent or coiled to form a spring, H. Thence the rod extends upward in the form of an arm, I, and to this arm I a spring-clamp, J, is attached. The spring-clamp J is represented detached in Fig. 3. It is best made from flat steel or other elastic metal, and in width corresponds to the height of the groove E in the wick-holder. It is of segment shape corresponding to the diameter of the wick-holder in the groove E, and so that it may em-

brace the wick-holder in the groove, as represented in Figs. 1 and 2. The extent of segment shape is somewhat greater than one-half the circumference of the wick-holder, as seen in Fig. 2, so that it grasps the wick-holder, and so that when the rod F is raised or lowered the wick-holder must necessarily rise or descend with the rod, as the case may be.

The rod F is made of outwardly-curved shape, as represented in Fig. 1, and so that as the rod is raised its upper end will naturally turn outward and away from the burner, as represented in broken lines in Fig. 1. The spring H, acting as a torsion-spring between the bar F and the clamp, reacts to give the bar F an outward tendency, and then as the rod descends the spring yields to the curved shape of the rod. The spring therefrom serves to hold the rod firmly, yet gives to it the curved movement necessary to take the upper end of the rod over the burner as the rod rises. The rod terminates at its upper end in a suitable or convenient shape to be grasped. (Here represented as terminated in a ball shape.)

When it is desired to remove the wick-holder, as for the purpose of applying or renewing the wick, the burner G is removed, and the rod F drawn upward until the holder is so far above the top of the fount that the clamp is exposed, as represented in Fig. 4. The wick-holder and its wick will still surround the inner tube, but the clamp, then being above the top of the fount, may be turned horizontally from the holder, as represented in Fig. 5, so as to take it out of the groove in the wick-holder, thus leaving the wick-holder free to be removed or introduced.

The upward-projecting portion of the rod, or arm I of the rod F, permits the clamp to thus rise above the top of the fount, the arm I passing inside the neck of the fount, while the rod F is outside, it being understood that the rod F works through a small aperture in the top of the fount; but the rod is permitted a sufficient rotation to take the clamp from the wick-holder, as I have described. Under this arrangement it will be seen that the engagement between the wick-holder and the wick-adjuster may be brought entirely outside the fount, but without removing the wick-adjuster from the fount, thereby obviating difficulties which exist in this class of wick-adjusters in which the engagement between the adjuster and wick-holder is necessarily made within the fount. I prefer to construct the

wick-adjuster with a torsion-spring between it and the arm which carries the clamp, and so as to leave a space between the arm and adjusting-rod, and to make the rod curved, so as to take the outward path which I have described in rising; but the rod may be straight, as indicated in broken lines, Fig. 1, and a rigid connection made with the clamp through the arm I, but yet so that the clamp may be turned laterally away from or into engagement with the curve, as I have before described.

From the foregoing it will be understood that I do not broadly claim a wick-adjuster which consists of a rod extending from the fount outside the burner, but detachably engaged with the wick-holder.

I claim—

1. In a central-draft lamp, the combination of the inner tube, B, surrounding wick-holder D, adapted to carry the wick between it and the central tube, the said wick-holder constructed with an annular groove near its lower end, with a wick-adjuster consisting of an elastic segment-shaped clamp corresponding to and adapted to detachably embrace the said wick-holder within the said groove, and a rod extending into the fount outside the burner, downwardly below the said clamp, and thence turned upward to form an arm, I, the upper end of said arm attached to the said clamp, substantially as described, and whereby up-and-down movement of said rod will, through the said clamp and groove in the wick-holder, impart a corresponding movement to said wick-holder and the wick carried by said holder.

2. In a central-draft lamp, the combination of the inner tube, B, a wick-holder, D, surrounding said central tube and adapted to carry the wick, the said tube D constructed with an annular groove, E, combined with a wick-adjuster composed of the outwardly-curved rod F, extending into the fount outside the burner and to a point below said groove in the wick-holder, constructed with a torsion-spring at its lower end and with an arm extending upward therefrom to said groove in the wick-holder, and a segment-shaped elastic clamp attached to the upper end of said arm and adapted to embrace said wick-holder within the said groove, substantially as described.

CHARLES A. EVARTS.

Witnesses:

MAX E. MILLER,
C. D. NEWBURY.