(No Model.)

W. L. UPSON.

WICK RAISER FOR CENTRAL DRAFT LAMPS.

No. 481,741. Patented Aug. 30, 1892.

Fig. 1

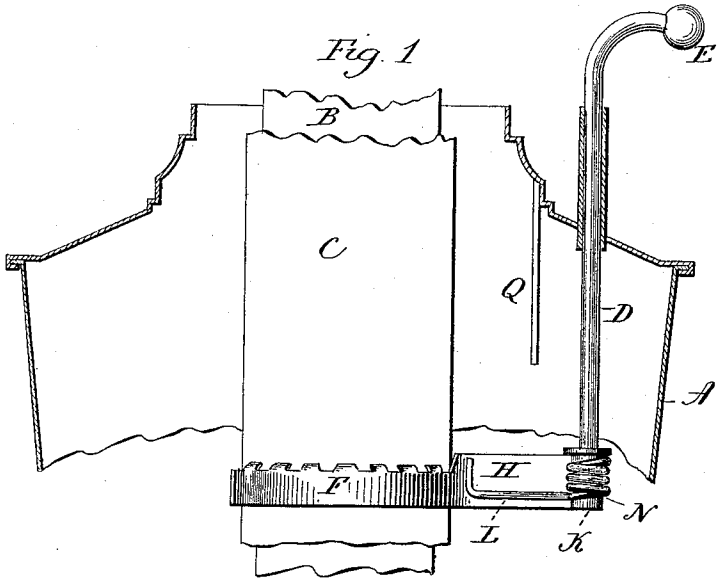


Fig. 2

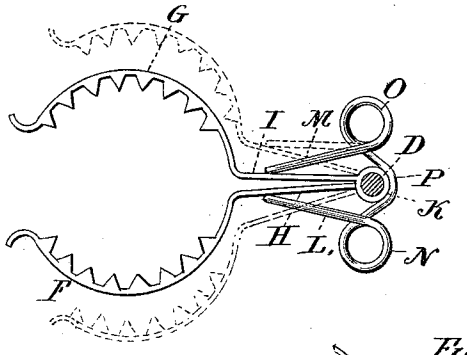


Fig. 3

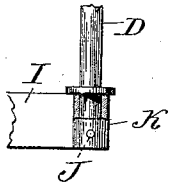
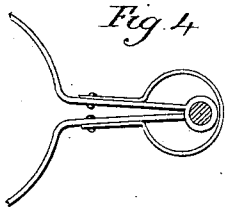


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

WALDO L. UPSON, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE BRADLEY & HUBBARD MANUFACTURING COMPANY, OF SAME PLACE.

WICK-RAISER FOR CENTRAL-DRAFT LAMPS.

SPECIFICATION forming part of Letters Patent No. 481,741, dated August 30, 1892.

Application filed November 23, 1891. Serial No. 412,784. (No model.)

To all whom it may concern:

Be it known that I, WALDO L. UPSON, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Wick-Raisers for Central-Draft Lamps; 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 central section of so much of a fount as is necessary to show the wick-raiser in side view; Fig. 2, a top view of the wick-raiser, showing the rod in horizontal section; Fig. 3, a side view of the lower portion of the rod and the arm of one of the jaws permanently attached thereto; Fig. 4, a plan view of a modification in the spring.

This invention relates to an improvement in the device for adjusting the wick in that class of lamps in which the wick is of tubular shape, air being received through the tube within the wick for the support of combustion, and particularly to that class of adjusters in which a rod is arranged vertically through the fount outside of the burner, carrying a pair of jaws upon its inner end, which are adapted to swing in a horizontal plane so as to open and close around the wick, and so that as the rod is drawn upward or forced downward the wick will be moved accordingly—a well-known class of wick-raiser. Heretofore in this class of wick-adjusters a depending stationary wedge has been arranged in the fount above the jaws of the raiser, so that as the jaws are lifted and approach their highest position the said wedge will enter between the jaws and force them asunder, so as to separate them from the wick and permit the removal of the wick or the introduction of a new wick. In this class of wick-raisers it is desirable that the upper end of the rod should be turned outward so as to form a convenient handle for raising and lowering the rod. If the jaws be hinged to the rod as in the previous construction, the rod is left free for rotation, and consequently the handle is liable to be turned against or in so close proximity to the burner as to become heated or otherwise inconvenience the adjustment of the wick. If the rod be made other than cylindrical, so as to prevent such rotation, such shape adds materially to the cost of manufacture.

The object of my invention is to permit the employment of a cylindrical rod, whereby wire may be used for that rod, and yet the rod held or prevented from rotation, and also in combination with such a rod and jaws a simple construction of spring which will yieldingly hold the jaws in the closed position.

A represents the fount, which is of common construction; B, the central draft or wick tube, and C the wick arranged on the tube.

D represents the wick-raising rod, which is made from wire, its upper end preferably bent to form an outwardly-projecting handle E. This rod extends through the fount outside the burner in the usual manner. To the lower end of the rod the two jaws F G are attached by arms H I, respectively, which extend from the jaws to the rod, the jaws being of segment shape and preferably toothed, so as to embrace and engage the wick in the usual manner.

Instead of hinging both the jaws to the rod, the arm I of the one jaw is made fast to the rod as if an integral part thereof. This may be done by soldering; or, for illustration, it may be secured to the rod by a pin J, introduced through the hub of the arm and the rod. The other arm H of the other jaw is constructed with a cylindrical sleeve K, corresponding to the rod D (see Fig. 1) and so as to embrace the rod and swing thereon as a hinge.

To yieldingly hold the jaws in their closed position, a spring is provided which surrounds the rod and is constructed with arms L M, which project forward and so as to bear upon the outside of the two arms H I, as seen in Fig. 2. As represented, the spring is made from wire and consists of two coils N O, formed in the wire, with a bend P in a wire between the coils, which passes across outside the rod, as seen in Fig. 2, or may be inside the rod, as seen in broken lines, so that the spring surrounds the rod, the arms of the springs projecting forward onto the arms of the jaws. This gives a torsion-spring of great elastic capacity and one which will not lose its elasticity

by use or otherwise. Near the top of the fount a depending wedge Q is arranged, the point of which is downward and is arranged so that as the rod and the arms are drawn upward the point of the wedge will pass between the arms of the jaws and so as to separate and detach them from the wick for the purpose of removing the wick or the introduction of a new wick. This is a common and well-known expedient and does not require particular illustration. The spring readily yields as the raiser is lifted onto the wedge, and then as the raiser is depressed the spring reacts to close the jaws.

Instead of making the spring with double coils, as represented in Fig. 2, it may be made a flat spring bent to embrace the rod, with the two arms extending forward onto the arms of the jaws, as seen in Fig. 4. In either case the spring works as a torsion-spring and so considerable a length of spring is attained as to make it readily yielding for the release of the wick, yet adapted to firmly hold the jaws in engagement with the wick.

The spring is of simple construction, and in either case one which is not liable to disadjustment or to deteriorate because of becoming gummed with the oil, as is frequently the case in other constructions of springs.

By attaching one of the jaws rigidly to the rod its rotation is prevented, so that it will stand always in substantially the same position, the slight oscillation which will be produced on the rod in the opening of the jaws not materially affecting the position of the rod.

From the foregoing it will be understood that I do not claim, broadly, a wick-raiser consisting of a lifting-rod carrying a pair of jaws at its lower end, the jaws adapted to embrace the wick, combined with a spring to yieldingly hold the jaws in engagement with the wick, and with a depending wedge in the upper part of the fount upon which the jaws may pass as they approach their highest position and so as to open and disengage the jaws from the wick; but

What I do claim is—

1. In a wick-raiser for central-draft lamps, the combination of a pair of jaws adapted to embrace the wick one upon each side, the said jaws constructed with arms extending radially outward, and a vertical rod extending vertically through a bearing in the fount, one of the said jaws made fast to the lower end of said rod and the other jaw hinged thereto with a spring the tendency of which is to yieldingly hold the jaws in the closed position, substantially as specified.

2. In a wick-raiser for central-draft lamp, the combination of a pair of jaws adapted to embrace the wick within the fount, each jaw constructed with an arm extending radially outward, the jaws being adapted to swing the one from the other, and a vertical rod upon which the said arms of the jaws are arranged, the said rod extending vertically upward through a suitable bearing in the fount, combined with a wire spring composed of two coils N O, with a bend P between the coils across the rod, the arms L M of the said coils extending inward and adapted to bear upon the outer side of the said arms of the jaws, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WALDO L. UPSON.

Witnesses:
H. S. SAVAGE,
F. A. LEEDS.