

(No Model.)

W. L. HARDING.
WICK REGULATOR FOR LAMPS.

No. 529,382.

Patented Nov. 20, 1894.

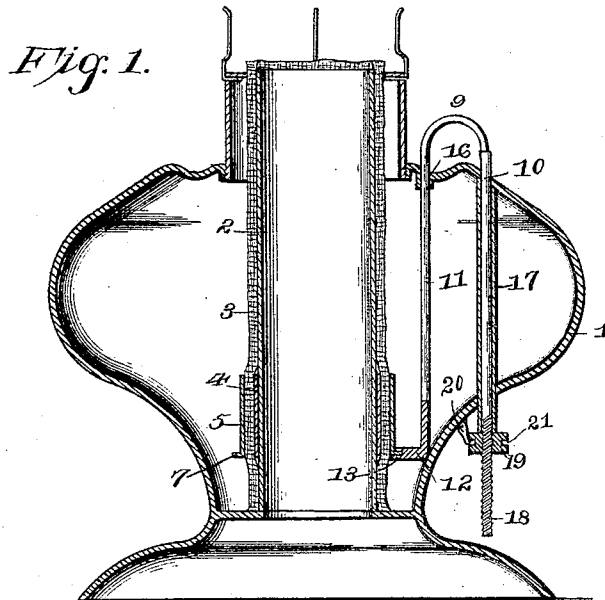


Fig. 2.

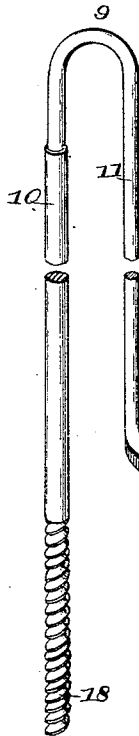


Fig. 3.

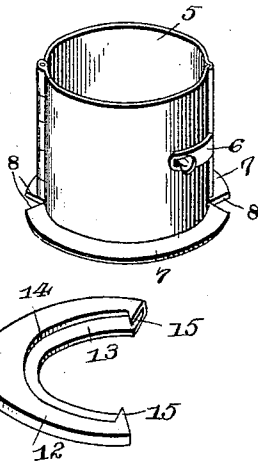


Fig. 4.

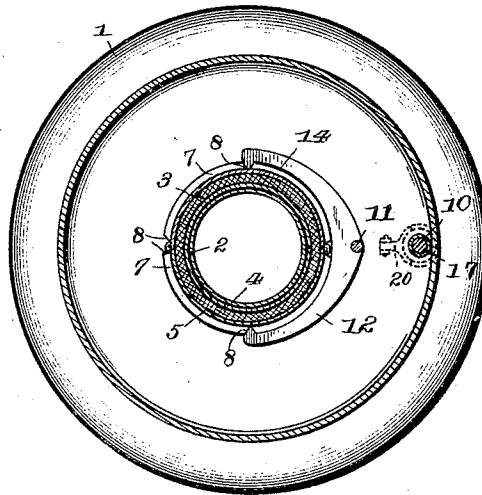
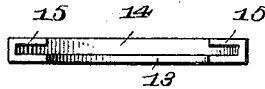


Fig. 5.



Witnesses

Chas. Ford.

Attorney

By his Attorneys.

Inventor
Walter L. Harding.

Chas. Ford.

UNITED STATES PATENT OFFICE.

WALTER L. HARDING, OF LIVINGSTON, TEXAS.

WICK-REGULATOR FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 529,382, dated November 20, 1894.

Application filed April 17, 1894. Serial No. 507,913. (No model.)

To all whom it may concern:

Be it known that I, WALTER L. HARDING, a citizen of the United States, residing at Livingston, in the county of Polk and State of Texas, have invented a new and useful Wick-Regulator for Lamps, of which the following is a specification.

My invention relates to an improvement in those lamp-wick regulators which consists of a threaded rod operated by a nut and connected to the wick, whereby the wick may be raised or lowered by operating the nut; and the invention lies in an improved connection between the wick and rod, by which the wick can be raised with more uniformity and ease.

In the accompanying drawings: Figure 1 represents a section of a lamp having my improvements applied; Fig. 2, an enlarged perspective view of the rod and its attached rim; Fig. 3, a similar view of the tube or sleeve for embracing the wick; Fig. 4, a horizontal section, showing in particular the mode of connecting the rim of the rod to the sectional sleeve; Fig. 5, an end elevation of the sleeve embracing rim.

The reference numeral 1 indicates the lamp-body, which is shown as provided with the central draft-tube 2, and tubular wick 3, all of which may be of any preferred construction.

Located on the tube 2, and capable of a vertical reciprocating movement thereon, is the sleeve or short section of tubing 4, which snugly embraces the tube 2, but so as to be capable of the movement aforesaid. This sleeve is adapted to have the wick 3 passed over it, and to be held in engagement therewith by the sectional sleeve 5, which is adapted to embrace the wick and sleeve 4, and to clamp the wick and itself in rigid engagement therewith.

The sleeve 5 is formed of two vertical sections hinged at one of their edges, and adapted to swing horizontally on said hinge, and provided at the remaining edges with the clasp or other securing device 6, whereby the sleeve, after having been placed around the wick, may be clamped thereagainst, as before stated. Formed on the lower edge of each section of sleeve 5 are the peripheral flanges 7, which are provided with the beveled contiguous ends 8. These ends 8 serve the double purpose of permitting the sections of sleeve 5

to swing on their hinge, and to allow the clamp or securing-arms of the operating rod to be attached to the sleeve 5, as will be more fully described hereinafter.

9 indicates the rod for operating the invention, and this is formed of an integral piece of metal, bent to comprise two parallel sections 10 and 11. The section 11 is about two-thirds the length of the companion section, and is provided with the semi-circular arm or rim 12, which is formed integral with, or rigidly secured to, its lower end, and which curves to form a true semi-circle outwardly from the section 11, and on each side thereof, and is of such a size that it will embrace the flanges 7 of sleeve 5.

Formed integral with the rim 12, and on the lower and inner periphery thereof, is the flange 13, which forms a rabbet-groove 14, in which one-half of each of the flanges 7 lies, and the parts are so shaped that this connection will be a snug one.

The ends of the rim 12 are each formed with the inwardly-extending studs 15 thereon, which lie far enough above the flange 13 to permit the flanges 7 to lie upon the former flanges and under the studs, whereby the flanges 7 are connected to the rim 12, in a way which will be secure against all movement of which the sleeve 5 is capable, since it cannot move horizontally, and its vertical movements will be suppressed by the studs 15 and flange 13, respectively. The flanges 7, of the sleeve 5, are secured in their seat in the groove 14 and under the studs 15, by means of the beveled or inclined ends 8, which, being contiguous, form approximately two V-shaped or triangular openings in a practically continuous flange, and thereby allow the studs 15 to move upwardly through the openings, until the studs lie in a plane above the flanges 7, and until further independent upward movement is suppressed by the engagement of flanges 13 and 7. When the parts assume this position the sleeve 5 is turned axially one-fourth a revolution, so as to put the studs 15 and ends 8 out of vertical alignment, and make accidental displacement of the rim 12 and sleeve 5 quite impossible. From the rim 12 the section 11 extends vertically through the oil tank or chamber of the lamp and out the opening 16, formed in the upper side thereof.

This opening should be provided with a suitable box, or its equivalent, whereby the oil is prevented from passing out the same, and whereby the rod-section 11 is cleaned of the oil which would otherwise cling to it after passing through the oil in the chamber aforesaid. The rod 9 is then bent outwardly and downwardly and the latter portion passed through the tube 17, which, in turn, passes downwardly and through the oil chamber, and opens, at its lower end, outside of said chamber.

The last-named portion of rod 9, or the part 10, projects below the tube 17, and is provided, at its lower end, with the threads 18, which are of a quick pitch, and adapted to operate with the nut 19. This device, nut 19, is so related to the other parts of the device that it will be free to revolve and consequently move the rod 9 vertically, and yet be incapable of vertical movement, for this attribute is essential to the effective operation of the nut. The means for attaining this result may be any of the various devices known to mechanics, but I prefer to provide the swinging stud 20, which is adapted to swing toward and from the nut and engage with the annular groove 21 thereon, whereby the nut is allowed to turn axially and is held from vertical movement.

To regulate a wick having my improvements applied, the nut 19 is turned to move rod 9 in the requisite direction, which will be followed by a similar movement of the sleeve 5, and a consequent movement of sleeve 4 and wick 3, owing to the fact that sleeves 5 and 4 are clamped together and with the wick 3 between them. When the wick has been raised or lowered as desired, the movement of nut 19 is stopped and the parts allowed to remain until a second operation becomes necessary.

It will be seen that the movements of the wick will be free and unrestrained, since the sleeve 4 is loosely mounted on the tube 2 and rigidly connected to sleeve 5, thus enabling sleeve 5 to move with it, and allowing all of the movable parts free movement in their respective lines.

Having described my invention, what I claim is—

1. In a lamp, the combination of a central draft-tube, a sleeve slidably mounted thereon and adapted to have the wick passed over it, a clamp adapted to embrace the wick and sleeve and to secure itself and the wick and sleeve in rigid connection, the clamp having

formed thereon an annular and notched flange, a rod capable of vertical movement and for raising or lowering the clamp, and a semi-circular rim secured to the rod and having thereon a rabbet-groove and two studs, the latter being located above the plane of the rabbet-groove and adapted to pass through the notches in the flange, and thereby admit the flange to pass into the rabbet-groove to hold said flange in the rabbet-groove by moving the notches and studs out of vertical alignment, substantially as described.

2. In a lamp, the combination of a central draft-tube, a sleeve slidably mounted thereon and adapted to be secured to the wick, the sleeve having a notched flange formed thereon, a rod capable of vertical movement and for raising and lowering the sleeve, and a semi-circular rim secured to the rod and having a rabbet-groove thereon adapted to receive the flange of the sleeve, and a stud on the rim and arranged above the plane of the rabbet-groove, the stud being adapted to pass through the notch in the flange on the sleeve so as to permit the flange to enter the rabbet-groove, and to hold said flange therein by moving the stud and notch out of vertical alignment, substantially as described.

3. In a lamp, the combination of a central draft-tube, a sleeve slidably mounted thereon, a second sleeve formed in two vertical sections hinged to each other and adapted to embrace the first sleeve and clamp the wick between the two, each section of the second sleeve having a flange formed thereon and provided with beveled contiguous ends, whereby the sections are allowed to swing on their hinge, and two notches formed in the otherwise continuous flange, a vertically-reciprocating rod for operating the sleeve, and a rim secured to the rod, the rim having a rabbet-groove, and two studs formed thereon, the studs being located above the plane of the rabbet-groove, and adapted to pass through the notches in the flange on the sectional sleeve, so as to allow the flange to lie in the rabbet-groove, and to hold the flange in place by moving the notches and studs out of vertical alignment, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WALTER L. HARDING.

Witnesses:

W. T. EPPERSON,
C. L. CARTER.