(No Model.)

H. VAN HOEVENBERGH.

ELECTRIC LAMP LIGHTING DEVICE.

No. 284,516. Patented Sept. 4, 1883.

Fig. 1,

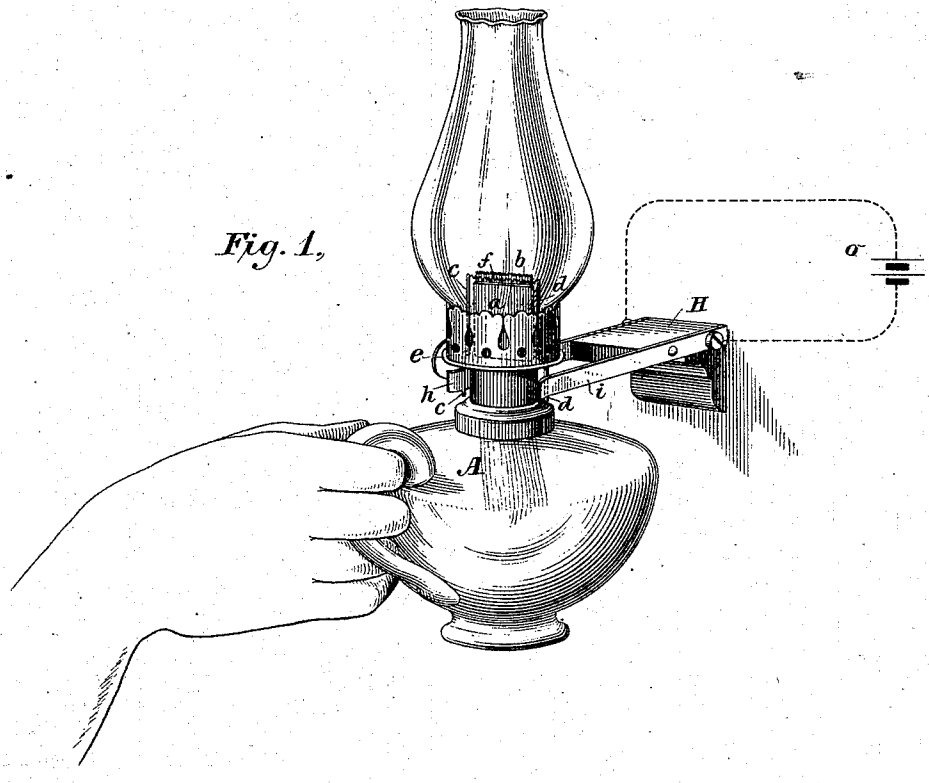


Fig. 2,

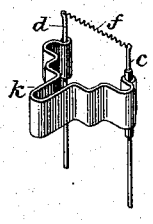


Fig. 3,

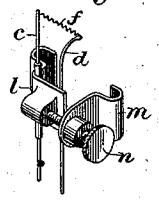
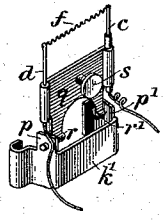


Fig. 4,



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY VAN HOEVENBERGH, OF ELIZABETH, NEW JERSEY.

ELECTRIC LAMP-LIGHTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 284,516, dated September 4, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY VAN HOEVENBERGH, a citizen of the United States, and a resident of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Electric Lamp-Lighting Devices, of which the following is a specification.

The object of my invention is to dispense with the necessity of employing matches for lighting the wicks of kerosene or oil lamps by employing heat obtained from an electric current in lieu thereof.

The invention consists in supporting a platinum wire or other conductor capable of being readily raised to a high temperature by the passage of an electric current in proximity to the edge of the wick of a kerosene or oil lamp, and in providing convenient means for including the same in an electric circuit when it is desired to light the lamp. The platinum wire through which an electric current is thus transmitted becomes sufficiently heated by the action of the current to ignite the wick or oil, after which the lamp may be removed from the circuit.

In the accompanying drawings, Figure 1 represents the kerosene-lamp of well-known construction, showing the method of applying the invention thereto. Figs. 2 and 3 represent devices for attaching the igniting device to the wick-tube. Fig. 4 represents a device which may be employed for throwing the incandescent conductor away from the wick-tube for the purpose of trimming the wick.

Referring to the drawings, A represents the body of the kerosene-lamp, and *a* and *b* the wick-tube and wick, respectively. Two insulated electric conductors, *c d*, extend upward through a plate, *e*, constituting the supporting-plate for the chimney, and are connected with the respective extremities of a short coil of platinum wire, *f*. The parts are so adjusted that the coil *f* extends parallel with the side of the wick and in close proximity thereto, but preferably not in actual contact therewith. The lower extremities of the conductors *c* and *d* project a sufficient distance below the plate *e* to permit their being placed in contact with two resilient electrodes, *h* and *i*, which are respectively connected with the opposite-poles of the battery *o*. When the lamp is placed between the two contact-arms *h* and *i* and electric connection is completed from the battery through the conductors *c* and *d* and wire *f*, the latter is heated by the action of the current in overcoming the electrical resistance, and the wick becomes lighted.

The contact-arms or electrodes *h* and *i* are designed to be placed at convenient points in the different rooms throughout the building, and they may all depend upon the same battery as a source of electricity. It may be found desirable in some instances to secure them to a supporting-bracket, H, which may be coated with luminous paint for the purpose of more readily determining the position in which the lamp should be placed to be ignited.

When the invention is applied to a lamp having a circular burner, the incandescing electrode should be curved slightly to conform to the outline of the wick or a portion thereof.

The device represented in Fig. 2 for attaching the incandescing conductor or electrode with the wick-tube consists of a resilient clip, *k*, the extremities of which are curved to fit upon the opposite edges of the wick-tube, and to press against the same with sufficient force to hold it in any required position. By means of this device the vertical position of the conductor may be readily adjusted. Preferably, in applying this attaching device, as also that illustrated in Fig. 3, conductor *c* is insulated from the support, whereas the remaining conductor *d* may or may not be in electrical connection therewith.

In Fig. 3 I have represented another form of clip, constructed in two separate parts, *l* and *m*. The conductors *c* and *d*, for supporting the electrode *f*, extend from one portion, *l*, of the clip. The remaining portion, *m*, is connected with the portion *l* by means of an adjacent screw, *n*, extending through the former and turning in a nut formed in the portion *l*. By means of this device the clip may be securely clamped in any required position upon the wick-tube.

In Fig. 4 I have represented the device which I have preferred to employ for turning the electrode *f* away from the wick whenever desired. This device consists of a resilient clip, *k'*, adapted to clasp the wick-tube with sufficient force to maintain it in any required position, and provided with two lugs, *p p'*,

serving as supports for the movable portion *q*. The part *q* consists of a flat plate having two legs, *r* and *r'*, respectively extending through the lugs *p* and *p'*, and turning therein. The conductors *c* and *d* are respectively carried at opposite extremities of the plate *q*, and one or both of them, as desired, are insulated therefrom. An adjusting-screw, *s*, extends through the central portion of the plate *q*, and by impinging against the adjacent face of the wick-tube determines the distance at which the electrode *f* shall be maintained from the wick. Any suitable well-known device may be employed for normally forcing the plate *q* in the direction of the wick-tube. In the drawings I have for this purpose represented the lugs *p* and *p'* as diverging from each other in the direction of the wick-tube, and they are made somewhat resilient. When the plate *q* is turned outward, the lugs *r* and *r'* act to press the lugs *p* and *p'* outward. These lugs thus tend, when the plate *q* is in the position indicated in the drawings, to press it still farther forward against the wick-tube. If, however, the plate be turned down at right angles, the pressure of the lugs *p* and *p'* will not be sufficient to turn the plate upward.

I claim as my invention—

1. The combination, substantially as hereinbefore set forth, with the wick and burner of a kerosene or oil lamp, of an electric conductor supported upon the burner in proximity to the wick, whereby the latter may be ignited by the passage of an electric current through said conductor.

2. The combination, substantially as hereinbefore set forth, with the wick and burner of a kerosene or oil lamp, of two insulated electric conductors, respectively mounted upon said burner and connected with the opposite terminals of a platinum conductor, and means, substantially such as described, for supporting said platinum conductor in proximity to said wick.

3. The combination, substantially as hereinbefore set forth, of the wick-tube, the igniting-conductor, the means, substantially such as described, for supporting said igniting-conductor in proximity to said wick, conductors respectively connected with the opposite terminals of said igniting-conductor, and the two contact-arms, respectively connected with said conductors.

4. The combination, substantially as hereinbefore set forth, with the wick and wick-tube of a kerosene-lamp, of the igniting-conductor, means, substantially such as described, for including said conductor in an electric circuit, the vertical adjustable support, and the movable plate, whereby said electrode may be moved toward or away from said wick.

In testimony whereof I have hereunto subscribed my name this 29th day of May, A. D. 1883.

HENRY VAN HOEVENBERGH.

Witnesses:
DANIEL W. EDGECOMB,
CHARLES A. TERRY.