(No Model.)

H. VAN HOEVENBERGH.

ELECTRIC WICK LIGHTING DEVICE.

No. 588,669. Patented Aug. 24, 1897.

Fig. 1.

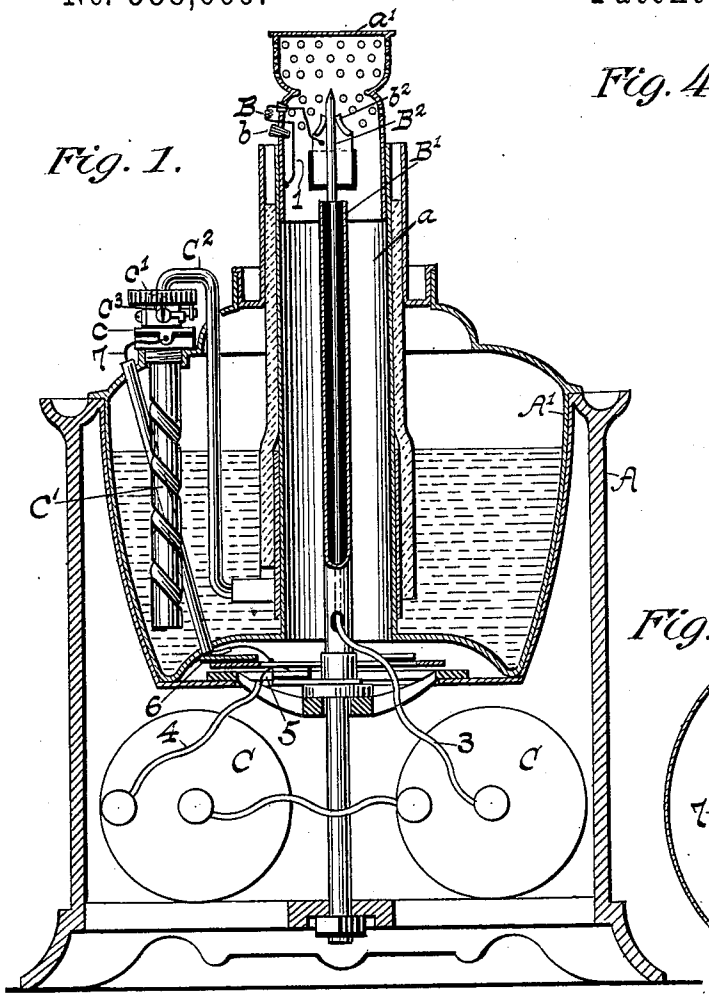


Fig. 4.

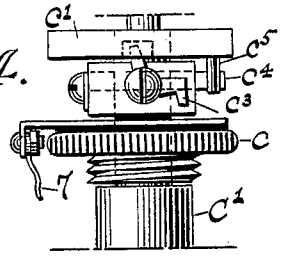


Fig. 5.

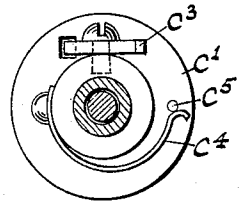


Fig. 3.

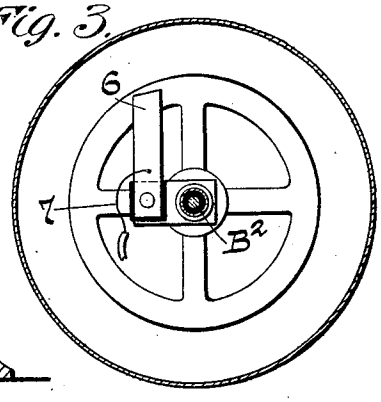
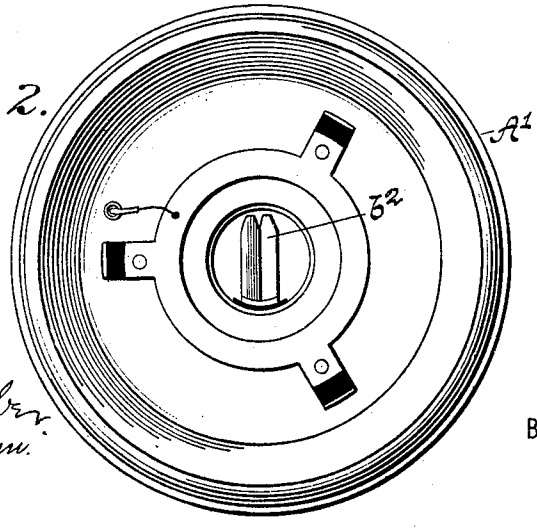


Fig. 2.



WITNESSES:

Frank S. Ober.

Herbert L. Fordham.

Henry Van Hoevenbergh

INVENTOR

BY Henry W. Brigham

his ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY VAN HOEVENBERGH, OF NEW YORK, N. Y., ASSIGNOR TO THE EMPIRE SELF LIGHTING OIL LAMP COMPANY, OF NEW JERSEY.

ELECTRIC WICK-LIGHTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 588,669, dated August 24, 1897.

Application filed May 5, 1896. Serial No. 590,354. (No model.)

To all whom it may concern:

Be it known that I, HENRY VAN HOEVENBERGH, a citizen of the United States of America, and a resident of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Devices for Lighting the Wick of an Oil-Lamp by Electricity, of which the following is a specification.

This invention relates to devices for lighting the wick of an oil-lamp by electricity, the object being to provide a simple electrical appliance for the purpose that may be portable with the lamp.

The invention comprises a resistance conductor or coil arranged adjacent to the upper end of the wick and a source of electricity for heating said conductor sufficiently to ignite the gas arising from the oil in the wick, and consequently igniting the wick; and it further consists in the construction and novel arrangement of parts, as hereinafter described and more particularly pointed out in the annexed claims.

In the accompanying drawings, Figure 1 is a vertical section of a central-draft oil-lamp embodying my invention. Fig. 2 is a bottom plan view of the fount and showing certain electrical connections. Fig. 3 is a top plan view, partly in section, of the lamp-body, showing certain electrical connections. Fig. 4 is a detail, on an enlarged scale, showing a wick-raiser and a circuit-closer combined; and Fig. 5 is a transverse section thereof.

Referring to the drawings, A designates a central-draft lamp comprising an outer casing having a cup-shaped receiver, within which is movably seated the lamp-fount A', having a central draft-tube a, in the upper end of which is engaged the usual perforated thimble a'.

B indicates a high-resistance coil or conductor attached to the outer side of the thimble a' above the upper end of the wick-tube, and arranged between the coil B and the main wick of the lamp is a small wick b, which extends through the wall of the thimble and is designed to absorb sufficient oil to generate an igniting-gas.

From one end of the coil B a wire 1 leads through the thimble and has electrical connection therewith, and from the other end of the coil a wire 2 leads through the wall of the thimble, but insulated therefrom, to a connection with a pair of resilient contact-fingers b^2, connected to, but insulated from, the interior of the thimble.

Arranged within the wick-tube is a hollow post B', through which a rod B^2 extends, but insulated therefrom. The upper end of the rod B^2 is designed to engage between the fingers b^2, which extend transversely of the thimble, and the lower end of said rod B^2 has a wire connection 3 with one pole of a battery C, which, as here shown, is located in the base of the lamp, and consequently portable therewith. From the other pole of the battery a wire 4 leads to a spring-contact finger 5, secured to the inner side of the fount-receiver, but insulated therefrom. This finger 5 is adapted to be engaged by a contact 6, secured to the bottom or outer side of the fount.

In this improvement I employ the wick-raiser mechanism as a circuit-closer. As here shown, the wick-raiser tube C' has mounted on its outer end a disk c, which is insulated from the tube, and from this disk a connection 7 extends, through a suitable tube projected through the lamp-fount, to a connection with the contact 6. A rotary part c' on the wick-raiser tube is in electrical connection with the wick-raiser rod c^2, which is also connected to the inner tube. To a post portion between the disk c and the rotary part c' is pivoted an angle-lever c^3, the upwardly-extending portion of which engages in a notch in the under side of the rotary part and the downwardly-extending portion of which is designed to be engaged with the disk c to close the circuit. It is obvious that a slight rotary movement of the part c' will rock the lever downward and close the circuit, and upon releasing the rotary part a spring c^4, engaging at one end with the post and at the other end with a pin c^5, depending from the rotary part, will return said rotary part and the lever to their normal open position and break the circuit.

What I claim is—

1. The combination with a central-draft lamp of a high-resistance conductor adjacent to the upper end of the wick-tube, an auxil-

iary wick or oil-absorber adjacent to such conductor, and an electrical circuit in which the conductor is located, substantially as specified.

2. The combination with a central-draft oil-lamp of a high-resistance electrical conductor, located adjacent to the upper end of the wick-tube, one end of such conductor being in electrical contact with the body of the lamp and the other end insulated from the lamp and in contact with one pole of an electric battery carried by the said lamp, an electric lead extending from the other pole of the said battery to a contact-point insulated from the body of the lamp and a wick-raising mechanism provided with a contact-point adapted to be automatically brought into contact with the last-mentioned contact-point when the wick is raised, substantially as specified.

3. The combination with a central-draft oil-lamp of an electrical conductor, located adjacent to the upper end of the wick-tube, an electric battery carried by said lamp and an electric circuit extending from the poles of said batteries to said conductor, said circuit being normally broken but adapted to be automatically closed when the wick of the said lamp is raised, substantially as specified.

4. In a self-lighting lamp a wick-raising mechanism consisting of an insulated contact-disk in electrical connection with one pole of a battery in combination with a rotary part in electrical contact with the other pole of said battery, and provided with a pivoted angle-lever c^3 and a spring c^4, so that by turning the rotary part, the angle-lever will be brought into contact with the contact-disk and the circuit closed, and at the same time the wick of the lamp will be raised, substantially as specified.

5. The combination with a central-draft lamp of an electrical heat-generator located above the upper end of the wick-tube, a source of electricity, a wick-raiser and a circuit-closer operated by the wick-raiser, substantially as specified.

6. The combination with a central-draft lamp of a resistance-coil located above the wick-tube, a source of electricity carried by the lamp and having connection with the coil, a wick-raiser having connection with said source of electricity and with the coil, the said wick-raiser being adapted to close the circuit between the source of electricity and the coil, substantially as specified.

7. In a central-draft lamp, the combination with the body thereof, of a source of electricity, a contact connected with the body and source of electricity, a fount, a contact on said fount adapted to engage with the first-named contact, an electrical heat-generator above the wick-tube and having connection with the source of electricity, and a wick-raiser operating as a circuit-closer, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 30th day of April, 1896.

HENRY VAN HOEVENBERGH.

Witnesses:

WILLARD N. BAYLIS,

HERBERT L. FORDHAM.