

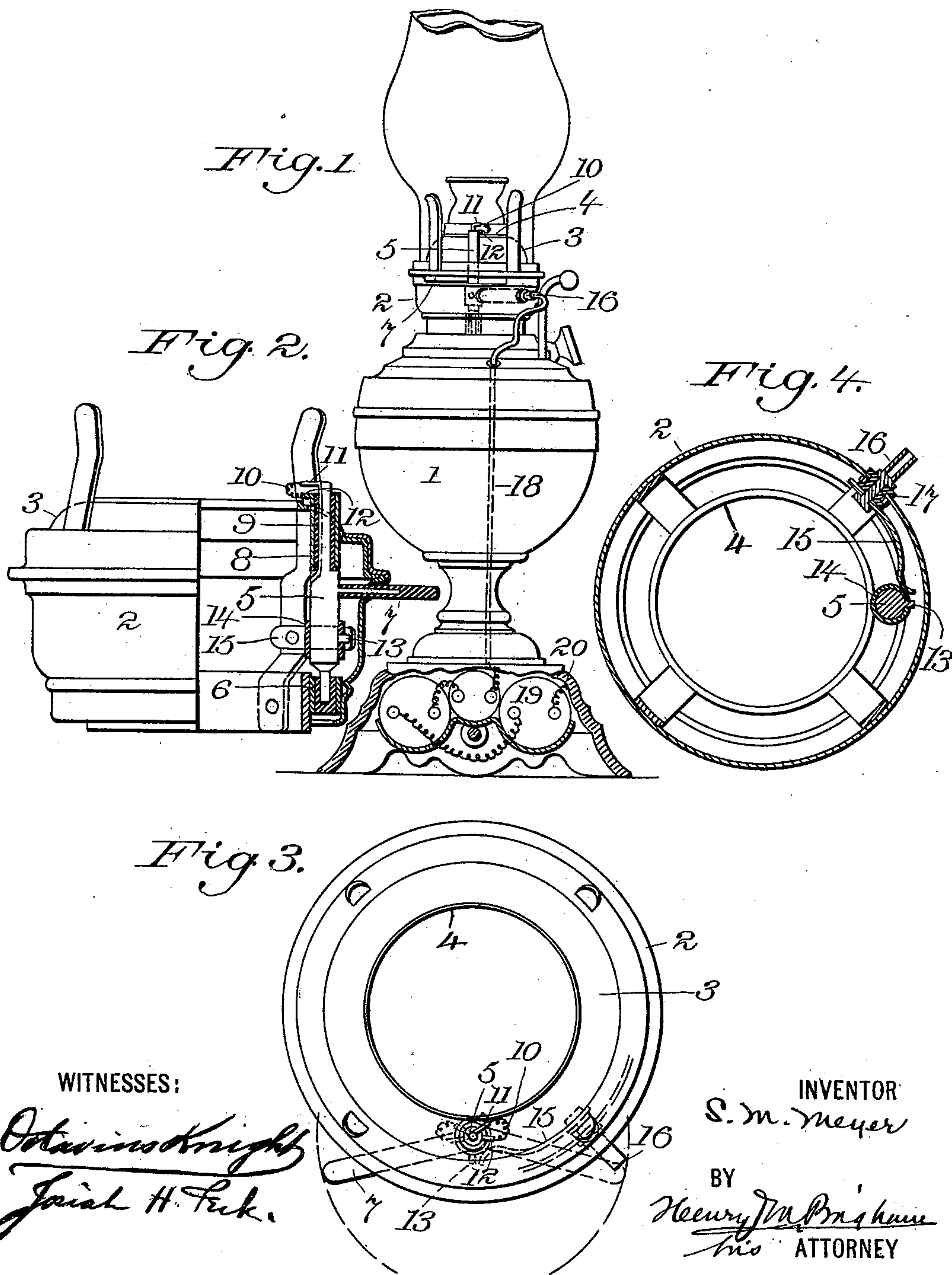
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S. M. MEYER.  
DEVICE FOR LIGHTING LAMPS BY ELECTRICITY.

(Application filed Feb. 5, 1898.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR LIGHTING LAMPS BY ELECTRICITY.

SPECIFICATION forming part of Letters Patent No. 631,316, dated August 22, 1899.

Application filed February 5, 1898. Serial No. 669,232. (No model.)

*To all whom it may concern:*

Be it known that I, SVEND MARTIN MEYER, a citizen of the United States, and a resident of New York, borough of Brooklyn, county of Kings, State of New York, have invented a new and useful Improvement in Devices for Lighting Lamps by Electricity, of which the following is a specification.

My invention relates to a device by which a resistance-coil is thrown into position to ignite the lamp and in this movement is placed in circuit with a suitable source of electricity and conductors, so as to be rendered incandescent. In my present improvement the resistance-coil is mounted on a vertical rock-shaft and connected by a contact-spring, which in normal position bears on an insulating-band surrounding the rock-shaft or sleeve and on the application of pressure to turn the rock-shaft or sleeve in either direction receives contact from a projecting stud which serves the combined purpose of closing the electric circuit at the time of the mid stroke or movement of the rock-shaft or sleeve and by mechanical action, in conjunction with the spring, throwing the rock-shaft or sleeve to the extremity of its oscillatory movement in either direction, so as to automatically break the contact and also throw the lighting-coil away from the flame.

In the accompanying drawings, Figure 1 is an elevation of a lamp with my invention applied. Fig. 2 is an elevation of the burner on a larger scale, partly in section. Fig. 3 is a plan of the same. Fig. 4 is a horizontal section thereof.

1 represents the body of the lamp; 2, the removable burner; 3, the cone thereof, which surrounds the wick-tube 4.

5 is an insulated rock-shaft supported at bottom in a step 6 of insulating material and vibrated by a handle 7, preferably of insulating material, projecting outward through a horizontal slot in the shell 2 of the burner. The rock-shaft 5 carries near its upper end a metallic sleeve 8, electrically insulated from the said rock-shaft by an interposed sleeve 9, of rubber or other suitable material, and in constant electrical connection with the shell 2 of the burner, in which it vibrates, together with the rock-shaft 5. The upper ends of the

grounded sleeve 8 and the insulated rock-shaft 5 are connected by a coil 10 of platinum wire or other suitable material, adapted to be rendered incandescent by the electric current attached at its ends to studs 11 12 on the rock-shaft 5 and sleeve 8, respectively, projecting horizontally in such position that the coil 10 will be thrown over or in close proximity to the lamp-wick at the mid-stroke of the rock-shaft 5 and will be removed from the wick at each end of the vibrating movement.

In order to close the electric circuit when the rock-shaft is at mid-stroke, the rock-shaft is provided with a pin 13, projecting horizontally through an insulating-band 14, surrounding the rock-shaft at this point, which pin as the rock-shaft is turned in either direction makes contact with the free end of a plate-spring 15, which is permanently attached to a coupling-piece 16, mounted by an insulator 17 in the shell 2 of the burner. The coupling 16 is in the form of a suitable socket or clip to permit the ready connection and removal of an insulated conductor 18, connecting with one pole of a battery or other source of electricity 19 in the base of the lamp, the other pole of which is grounded by a wire 20, connecting with the body of the lamp.

The operation is as follows: In the normal position of the lighter, as illustrated in Fig. 2, the lighting-coil 10 is thrown completely away from the flame in either direction, (shown in full and dotted lines, respectively,) and at the same time the pin 13 is removed from contact with the spring 15, which rests upon the insulating-band 14, surrounding the lower end of the rock-shaft 5. When it is desired to light the lamp, the handle 7 is pressed with the finger, rotating the sleeve to its mid-position, at which time the pin 13 engages with the spring 15, so as to close the electric circuit through the coil 10, which is in this position in contact or close proximity with the wick and, being rendered incandescent, instantly ignites the lamp. The pressure of the finger, moreover, carrying the rock-shaft beyond the mid-stroke causes the spring 15 to act upon the pin 13, so as to throw the rock-shaft 5 with a sudden movement to the extremity of its stroke, breaking the circuit and at the same time removing



the igniting-coil 10 away from the flame. It will thus appear that the rock-shaft, carrying the lighting-coil, may be rotated in either direction from the end of its stroke at which it rests and is by the action of the spring automatically thrown to the other end of its stroke, thereby again breaking the circuit.

I am aware that it is old to employ in an electric device for gas-lighting a resistance medium adapted to be rendered incandescent by an electric current and which is moved into position to close the current and bring the incandescent lighting device in reach of flame by moving in one direction and is automatically retracted, so as to remove the lighting device from the flame and break the circuit, by a reverse movement. I therefore do not claim this broadly.

It is an essential feature of my improvement that by a continuous stroke or movement of the device in one direction the circuit is closed instantaneously at mid-stroke of the device when the lighter is in reach of the flame and the circuit is broken by the continued movement in the same direction to the end of the stroke.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A device for lighting lamps by electricity comprising a suitable source of electricity and conductors, a rock-shaft having a projecting arm and an incandescing device carried thereby, a circuit-closing device closing the circuit through the incandescing material at mid-stroke of the rock-shaft, and a spring operating to throw the rock-shaft to either ex-

tremity of its oscillating movement; as explained.

2. In a device for lighting lamps by electricity, the combination of a suitable source of electricity and conductors, a rock-shaft and means for moving the same, an insulated conductor carried by the rock-shaft, a coil adapted to be rendered incandescent by electric current attached at its respective ends to the rock-shaft and to the insulated conductor carried thereby, a contact-pin carried by the rock-shaft and a spring acting in conjunction with said connecting-pin to make electric contact therewith, and to automatically throw the rock-shaft and contact-pin beyond the position in which the circuit is closed, as explained.

3. The combination of the rock-shaft 5, the sleeve 8 surrounding the said rock-shaft and insulated therefrom, the lighting-coil 10 connected at its respective ends to the said rock-shaft and sleeve, the pin or stud 13 projecting from the rock-shaft 5, an insulated spring 15 engaging the pin 13 and connected with one pole of a suitable source of electricity, the other pole of which is connected with the sleeve 8 and means for imparting a rotary or vibratory movement to the rock-shaft, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 12th day of January, 1898.

SVEND MARTIN MEYER.

Witnesses:

B. A. ITTNER,  
LE ROY M. YOUNG.