(No Model.) 2 Sheets—Sheet 1.

A. G. WATERHOUSE.

DEVICE FOR SUSPENDING ARC LAMPS.

No. 266,234. Patented Oct. 17, 1882.

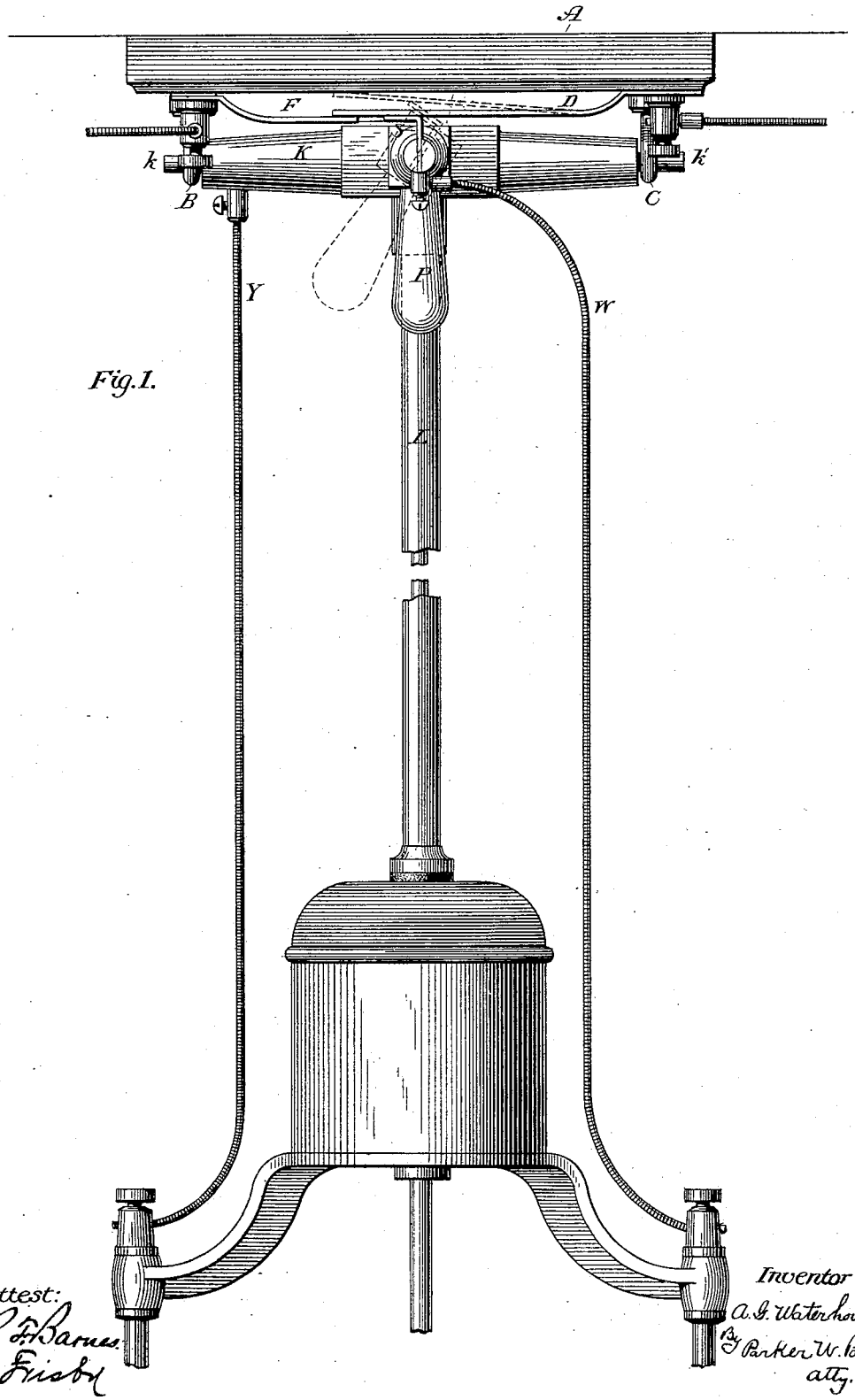

Fig. I.

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Fig. 2.

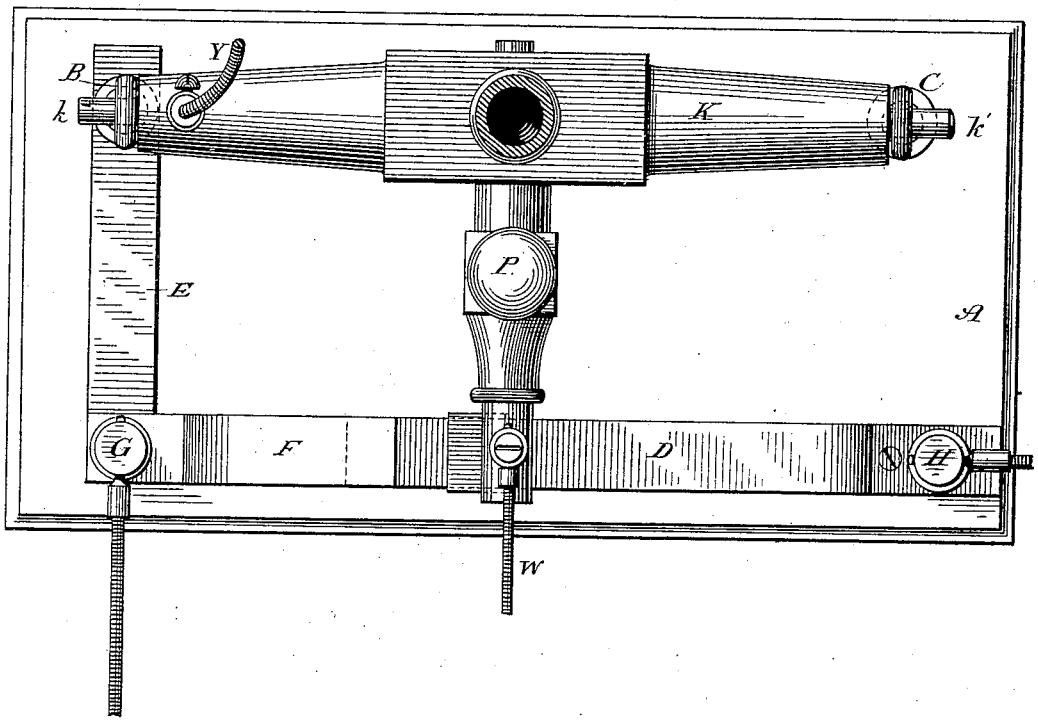
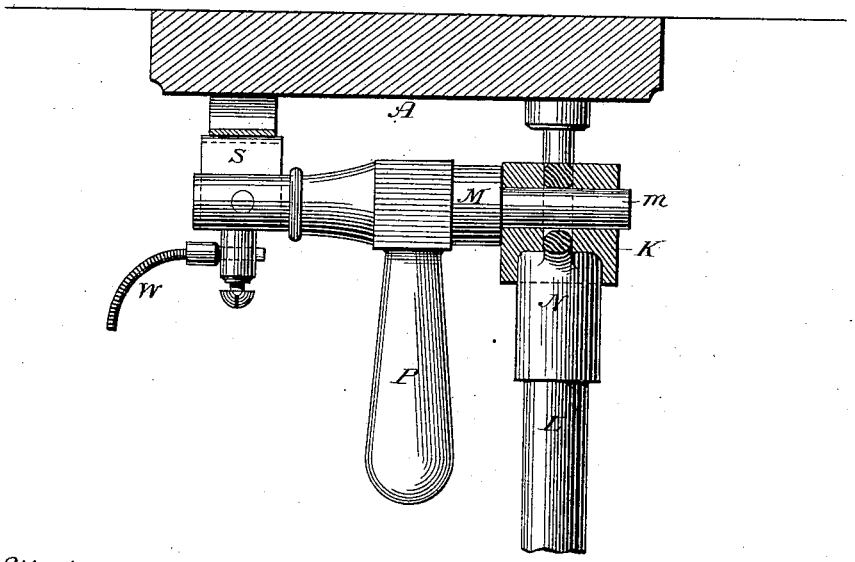


Fig. 3.



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UNITED STATES PATENT OFFICE.

ADDISON G. WATERHOUSE, OF NEW YORK, N. Y., ASSIGNOR TO THE UNITED STATES ELECTRIC LIGHTING COMPANY, OF SAME PLACE.

DEVICE FOR SUSPENDING ARC-LAMPS.

SPECIFICATION forming part of Letters Patent No. 266,234, dated October 17, 1882.

Application filed May 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, ADDISON G. WATERHOUSE, a citizen of the United States, residing in New York, in the county and State of New York, have invented certain new and useful Improvements in Devices for Suspending Arc-Lamps, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My present invention comprises a combined suspending and switch mechanism for electric-arc lamps, the purpose of which is to provide a ready and easy means of hanging a lamp in place and of directing the current through or around the same, as occasion may require, without danger of shocks to persons carelessly handling the lamps.

In the accompanying drawings, where my invention is illustrated in detail, Figure 1 is a view in elevation of the suspending and switch mechanism and the upper part of an electric lamp connected therewith. Fig. 2 is a plan view of the same devices, a portion of the tubular support of the lamp being shown in section. Fig. 3 is a side and part sectional view of the suspending and switch mechanisms, illustrating the principle of their operation.

Similar letters of reference indicate corresponding parts.

The devices which form the operative portions of the invention are designed to be secured to an overhead support, and for this purpose they are properly clamped to a block or plate of insulating material, A.

Referring to Fig. 2, B and C are two metallic hooks fixed near the opposite ends of the plate A. Hook B is in metallic contact with a strip, E, electrically connected with a binding-post, G. A second binding-post, H, is fixed to the plate A at some distance from the first, and both are in good electrical connection with brass or copper springs D F, arranged as shown in Fig. 1, to complete circuit, under normal conditions, between the said posts G H.

K is a bar, of wood or other insulating material, for convenience shaped as shown, and to it is connected the tubular support of an electric lamp, a desirable means of connecting the lamp being as follows: The tube L is closed above by a cap, N, in which is a ring or eye. The bar K is recessed for the reception of this ring and a portion of the cap, and a hole is bored at right angles to the ring when inserted in position, through which hole and the ring is passed a pin, *m*, inserted in the end of a wooden bar, M. By this means the lamp is securely connected to the bar K and the bar M held at right angles to the tube L in such manner that it may be freely turned by a wooden handle, P.

Fixed to the end of bar M, and immediately under the springs D F, is an arm, S, bent at right angles, as shown, so that when the handle P is in a vertical position the springs D F will be in contact; but when the handle is turned to the position indicated by dotted lines in Fig. 1 the arm will raise the spring D out of contact with spring F.

A wire, W, is connected to the metallic arm S and to one of the lamp-terminals, and a wire, Y, in electrical connection with a metal pin, *k*, fixed in the end of bar K, leads to the other lamp-terminal.

In using this device a lamp is connected with the bar K, as described, or in any similar manner, and the bar hung on the hooks B C by the pins *k k'*. So long as the lamp and handle P remain in a vertical position the springs D F are in contact and the lamp is short-circuited. If the handle P be turned as indicated above, the circuit is made through the lamp alone. If it is not desired to use the lamp, it may be swung bodily up into a horizontal position and there retained in any proper way, by which means the arm S is carried away from the spring D and the lamp removed entirely from circuit.

By the above-described devices absolute safety is insured in the manipulation of the lamps, as the attendant, in repairing or cleaning the same, or in replacing the carbons, can remove the lamp entirely from the circuit without taking it down, and thus avoid accidents which might otherwise occur in many forms of lamp where the circuit is completed through parts of the lamps when shunted from the carbons.

Having now described my invention as em-

bodied in the most practicable and convenient mechanism of which I am at present aware, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with an insulating-base, suspending-hooks, binding-posts, and contact-springs connecting said posts, arranged thereon, of an insulating supporting-bar, an electric lamp connected therewith, a switch for separating the contact-springs on the base, and circuit-connections from the binding-posts of the base to the terminals of the lamp, substantially as hereinbefore set forth.

2. The combination, with an insulating-base, suspending-hooks B C, springs D F, and means for connecting the same with an electric circuit, of a bar, K, supported by said hooks, an electric lamp connected with the bar, a bar or spindle, M, extending from the bar K, a metallic contact-arm, S, fixed to the same, and circuit-connections from the terminals of the lamp to one of the springs and to the contact-arm S, respectively, these parts being constructed and arranged for operation substantially in the manner set forth.

In testimony whereof I have hereunto set my hand this 16th day of May, 1882.

ADDISON G. WATERHOUSE.

Witnesses:
W. FRISBY,
PARKER W. PAGE.