

(No Model.)

E. P. SNOWDEN.

SAFETY DEVICE FOR HANGING ELECTRIC ARC LAMPS.

No. 567,322.

Patented Sept. 8, 1896.

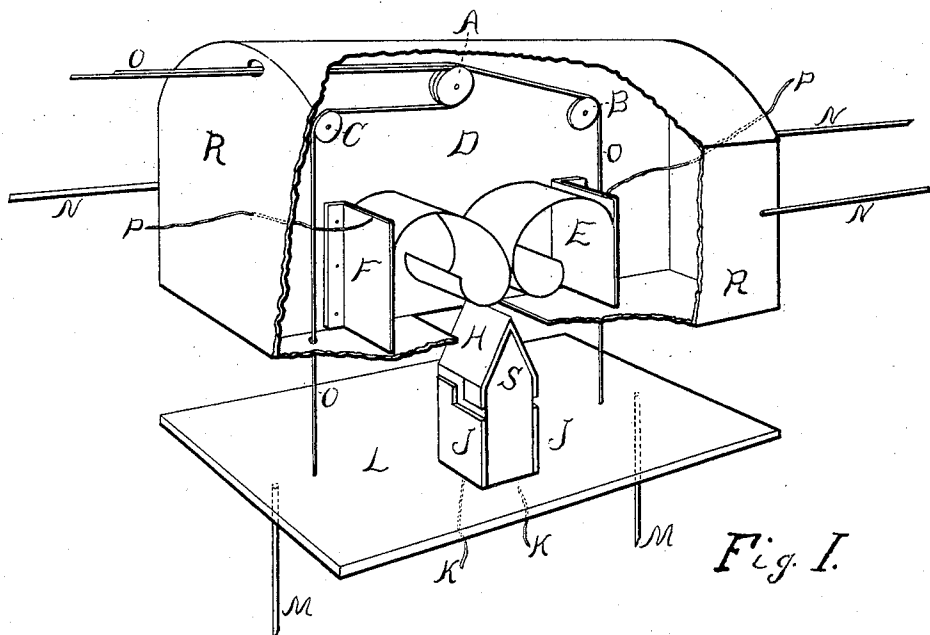


Fig. I.

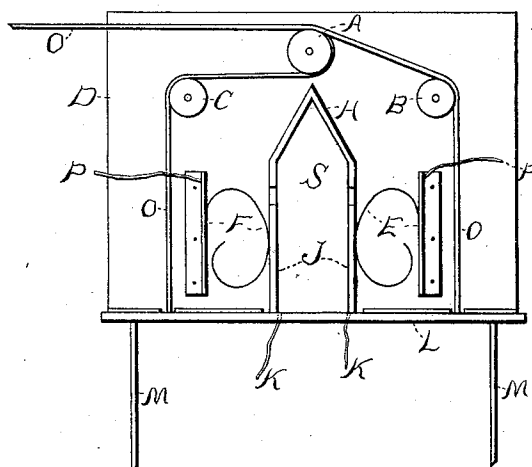


Fig. II.

Witnesses:

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UNITED STATES PATENT OFFICE.

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SAFETY DEVICE FOR HANGING ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 567,322, dated September 8, 1896.

Application filed January 23, 1896. Serial No. 576,483. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. SNOWDEN, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Safety Devices for Hanging Electric-Arc Lamps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in safety devices for hanging electric-arc lamps in which the current is shifted from the lamp direct through the springs when the lamp is lowered, and I attain my object in the manner illustrated by the accompanying drawings, in which—

Figure I is a perspective view of the safety device with a portion of the case cut away to more clearly show the internal mechanism, here presented with the current cut off from the lamp; and Fig. II is a full front view of a portion of the case-partition with its attached parts, showing the relative positions of these parts when the current is passing through the lamp.

Similar letters refer to similar parts in both views.

A is a double pulley-wheel.

B and C are single pulley-wheels.

D is the case-partition to which the pulley-wheels are fastened.

E and F are metal springs used as electric conductors.

H is a conducting-point of the plug.

J J are the plug lamp-conductors.

K K are wires connecting lamp-conductors to lamp-terminals.

L is a table to which the plug is secured.

M M are rods which suspend the lamp from table.

N N are cables which suspend the safety hanging device.

O O are cables for lifting table L and its attached parts.

P P are the line-wires.

R is the case inclosing mechanism.

S is a non-conducting part of the plug.

To use my invention, the case is suspended in the air between two or more poles, or otherwise, by cables N N, (the front left-hand cable being cut away in drawings.) The cables O O having been passed over double pulley-wheel A and over pulley-wheels B and C down to table L, as shown in drawings, the line-wires P P are connected to conductors E and F, which, owing to the curved springs, are in direct contact. The current is now passing from one line-wire P through conductors E and F into the other line-wire P. The operator, who has hold of the cables O O beside the pole, now pulls down on these cables O O, which draws up the plug, table, and lamp. The point H of the plug inserts itself between the spring-conductors E and F and presses them apart. The separation of the springs would cause a flash were it not that the point H of the plug is a conductor and carries the current across. Point H is insulated from the lower part of the plug by the insulating material S, as shown in the drawings. The current therefore does not begin to pass through the lamp until the point H has been drawn up past the springs and the lamp-conductors J J come in contact with E and F, as in Fig. II. The current now passes from one line-wire P, through E and J and lamp-wire K, to the lamp-terminal or binding-post on lamp, and out through the other lamp-wire K, lamp-conductor J, spring-conductor F, and line-wire P. After passing over pulley-wheels B and C cables O O pass through openings in the bottom of the case. This insures the plug coming into its proper position every time it is raised.

To take the lamp out of circuit, the cables O O are slackened by the operator and the weight of table L, and the suspended lamp draws the plug out from between springs E and F. The point H again serves to carry the current for an instant from E to F until the springs come in contact with each other.

What I claim, and desire to secure by Letters Patent, is—

1. In a safety device for hanging electric-arc lamps the combination of springs E and F together with conductors J J for closing the circuit through the lamp and breaking the circuit in hanger by conductor H first pass-

ing between and above springs E and F, together with table L, and cables O O, substantially as shown and as set forth.

2. In a safety device for hanging electric-arc lamps a plug consisting of conducting-point H, a non-conducting part S and the two conducting parts J J, in combination with spring-conductors E and F, substantially as described and for the purpose specified.

10 3. In a device for hanging electric-arc lamps, in a combination, case R, case-partition D, double pulley-wheel A and single pulley-wheels B and C, each fastened to case-partition D, and cables O O carried upon said
15 pulley-wheels; table L, which is lowered and

elevated by said cables; rods M M by which lamp is suspended from said table; cables N N upon which the entire device is suspended; the conducting-point H; the non-conducting part of plug S; the plug lamp-conductors J J; 20 spring-conductors E and F; wires K K for connecting lamp-conductors to lamp-terminals and connecting line-wires P P, substantially as set forth.

In testimony whereof I affix my signature 25 in presence of two witnesses.

EDWARD P. SNOWDEN.

Witnesses:

WILLIAM L. WHITTINGTON,
EMMA HECKEL.