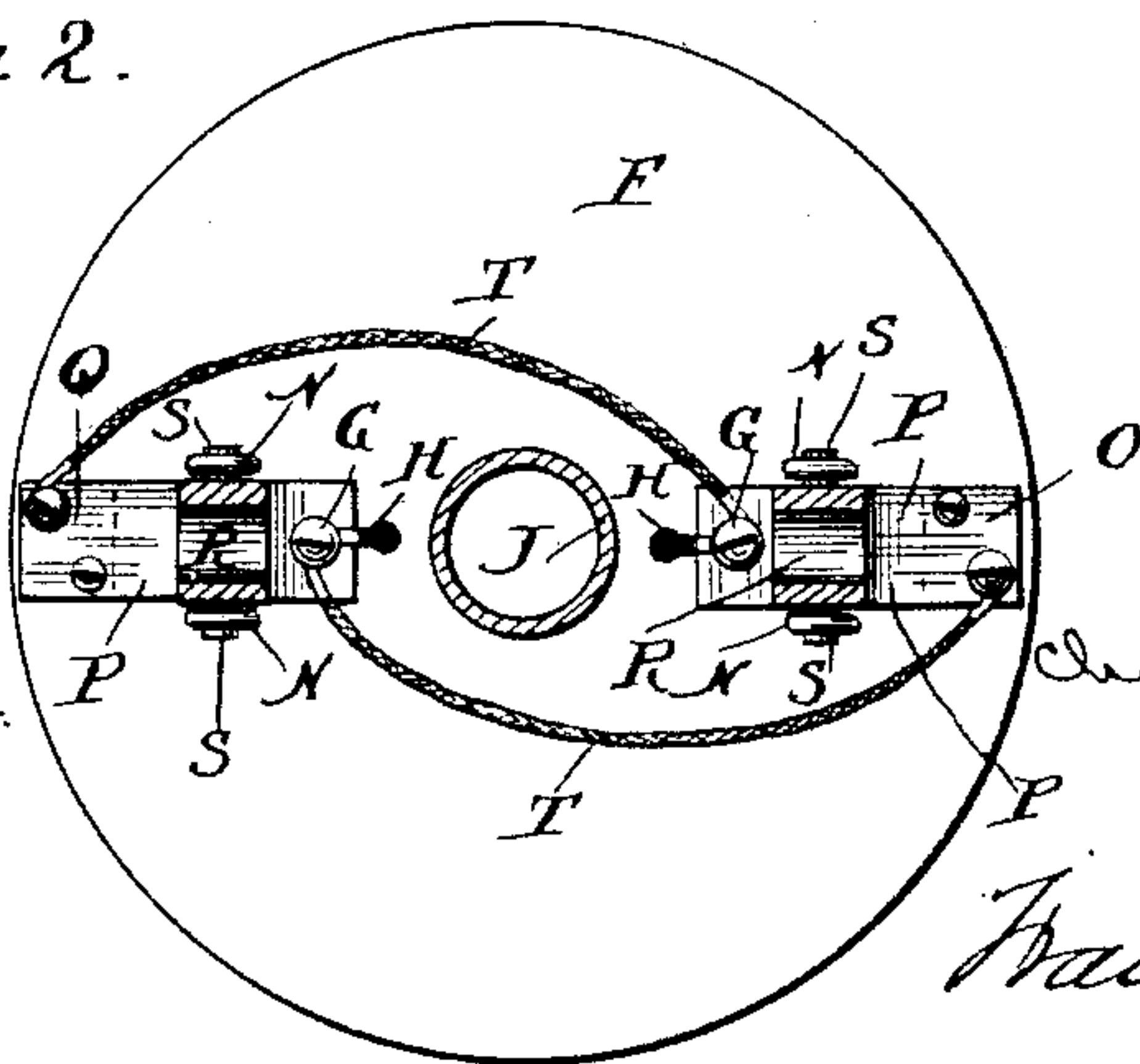
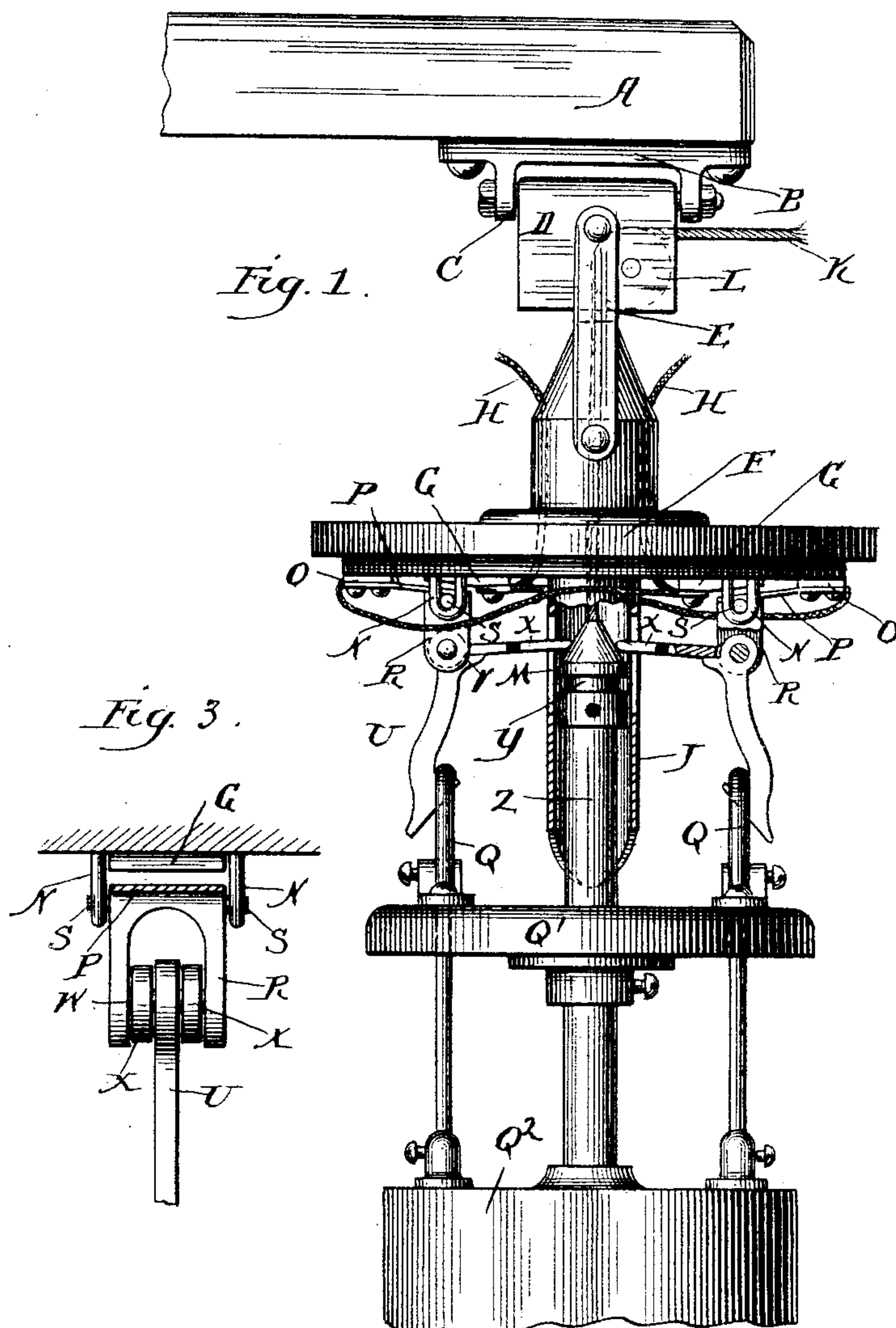


(No Model.)

C. A. PFLUGER.
ARC LIGHT HANGER.

No. 472,935.

Patented Apr. 12, 1892.



Witnesses:

Celeste P. Chapman.

Julia Holser.

Inventor:

Charles A. Pfleger

Frederick W. Parker,
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES A. PFLUGER, OF CHICAGO, ILLINOIS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE STANDARD ELECTRIC COMPANY, OF ILLINOIS.

ARC-LIGHT HANGER.

SPECIFICATION forming part of Letters Patent No. 472,935, dated April 12, 1892.

Application filed May 11, 1891. Serial No. 392,417. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. PFLUGER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Arc-Light Hangers, of which the following is a full, clear, and exact specification.

My invention relates to hangers for arc lights, and has for its object to provide simple and convenient means for hanging a lamp so that the same can be raised and lowered at will without manual interference and without the risk of creating an arc within the hood of the lamp. It is illustrated in the accompanying drawings, wherein—

Figure 1 is a side view of the lamp shown in part section with parts removed. Fig. 2 is a plan view of the circuit connections of the top. Fig. 3 is a detail of a suspending-hook.

Like parts are indicated by the same letters in all the figures.

A is a beam upon which is secured the support B, with the transverse pin C, upon which the block D is secured.

E is a hanger upon which is suspended the upper portion F of the lamp. Secured to this part F are the contact-blocks G G, to which lead the main conductors H H. In the middle of the part F and depending therefrom is the sleeve J, through which passes the suspending-rod K over the pulley L in the block D. The sleeve is slotted on its two sides at M M.

N N are depending staples on the part F. Secured, also, on the top portion F are the blocks O O, from which project the flat springs P P, carrying each a hanger R and a pin S, which is adapted to rest in the staples N N, and thus relieve the spring. From the block O on one side leads the conductor T to the block G on the opposite side, and in a similar manner leads a light-conductor T from one block O to the other block G. Pivoted to each of the hangers R R are the hooks U U, provided each with the upper shoulder V. On the same pivot-pin W which supports the hook V is pivoted the lever X, preferably in part or entirely of insulating material and

adapted to project through the slot M and to bear upon the shoulder V.

Y is a circular groove in the head of the lamp-stem Z.

Q Q are staples on the top of the lamp Q', adapted to engage the hooks U U. These parts could be considerably altered without departing from the spirit of my invention, and I do not wish to be limited to the precise form, arrangement, and proportions of the several parts shown.

The use and operation of the device is illustrated substantially as follows: If the parts are in the position indicated in Fig. 1, the two hooks U U are in electrical contact with the staples Q Q, which are the terminals of the lamp proper, and therefore the lamp is in circuit, the circuit being as follows, commencing on the right-hand side: from main conductor H to contact-block G, thence on conductor T to block O, on spring P to hanger R, to hook U, to terminal Q, on the left-hand side to the lamp, thence through the lamp to terminal Q on the right-hand side, through hook U, hanger R, spring P, block O, thence on conductor T to the block G on the left-hand side of the lamp, and thence to the other main conductor H. If now the rope K be pulled down by the operator, the lamp proper will be lifted and the staples Q Q will disengage from the hooks U U and will rise. The arms X X will slide down on the conically-shaped end Z Z until they drop into the circular slot Y, and this will take place at a certain predetermined distance of elevation of the lamp. When the staples Q Q are thus released from the hooks U U, the latter will be raised, or, in other words, the springs P P, being released from the plate, will rise until they engage each its opposed contact-block G, whereupon the lamp will be cut out of circuit, and the main circuit will be re-established in the following manner: from main conductor H on the right side of the block G, thence to the spring O on the right side, thence from the spring P and also from the block G on the right side, through the conductors T T to the spring P and block G on the left-hand side, and thence out to the left-hand conductor H.

Should there be any defect or obstruction so as to prevent either of the springs from rising to contact its opposed block, the main circuit will be re-established by engagement
5 with the other block. This is the object of the duplex arrangement of circuits, whereby the main-current circuit is re-established when either or both of the circuit-closers operates. In other words, there is an independ-
10 ent circuit-closer associated with each lamp-terminal, which circuit-closer is independently capable when normally operated of re-establishing the main circuit. The main circuit having been thus re-established, if the
15 rope K is slackened the lamp will descend, and since the arms X X bear upon the shoulders V V and are carried downwardly because they engage groove Y the hooks U U turn outwardly, so as to be freed from the de-
20 scending terminal staples Q Q. As soon as the staples have passed the hooks U U, the arms X X will slip from the groove Y and the hooks will be restored to their normal position, ready to re-engage and support the lamp
25 when the latter is raised.

I claim—

1. In an arc-light hanger, the combination of a support with hooks suspended therefrom and adapted to engage each one terminal of
30 the lamp and levers connected with such

hooks and adapted to engage some portion of the lamp, whereby the hooks are held out of the path of the lamp-terminals when the lamp is descending.

2. In an arc-lamp hanger, the combination 35 of a support with a hook and lever independently pivoted thereto, a portion of the lamp in the path of the lever and adapted to engage the same, and a terminal of the lamp in the path of the hook adapted to engage the same, 40 the hook and lever related so that the latter may engage the former, and the lever adapted to be moved by the motion of the moving part of the lamp.

3. In an arc-light hanger, the combination 45 of two pivoted hooks adapted to engage the terminals of the lamp with two levers, one associated with and adapted to engage each hook, and a groove or the like on a project- 50 ing portion of the lamp, adapted to receive the inner ends of the levers, the parts related so that when the lamp is raised the groove receives the levers and when lowered the levers force the hooks out of the path of the lamp-terminals.

CHARLES A. PFLUGER.

Witnesses:

CELESTE P. CHAPMAN,
H. M. DAY.