

No. 698,792.

Patented Apr. 29, 1902.

H. M. BUCK & W. H. STRIPPY.

ARC LIGHT HANGER BOARD.

(Application filed June 15, 1901.)

(No Model.)

FIG. 1.

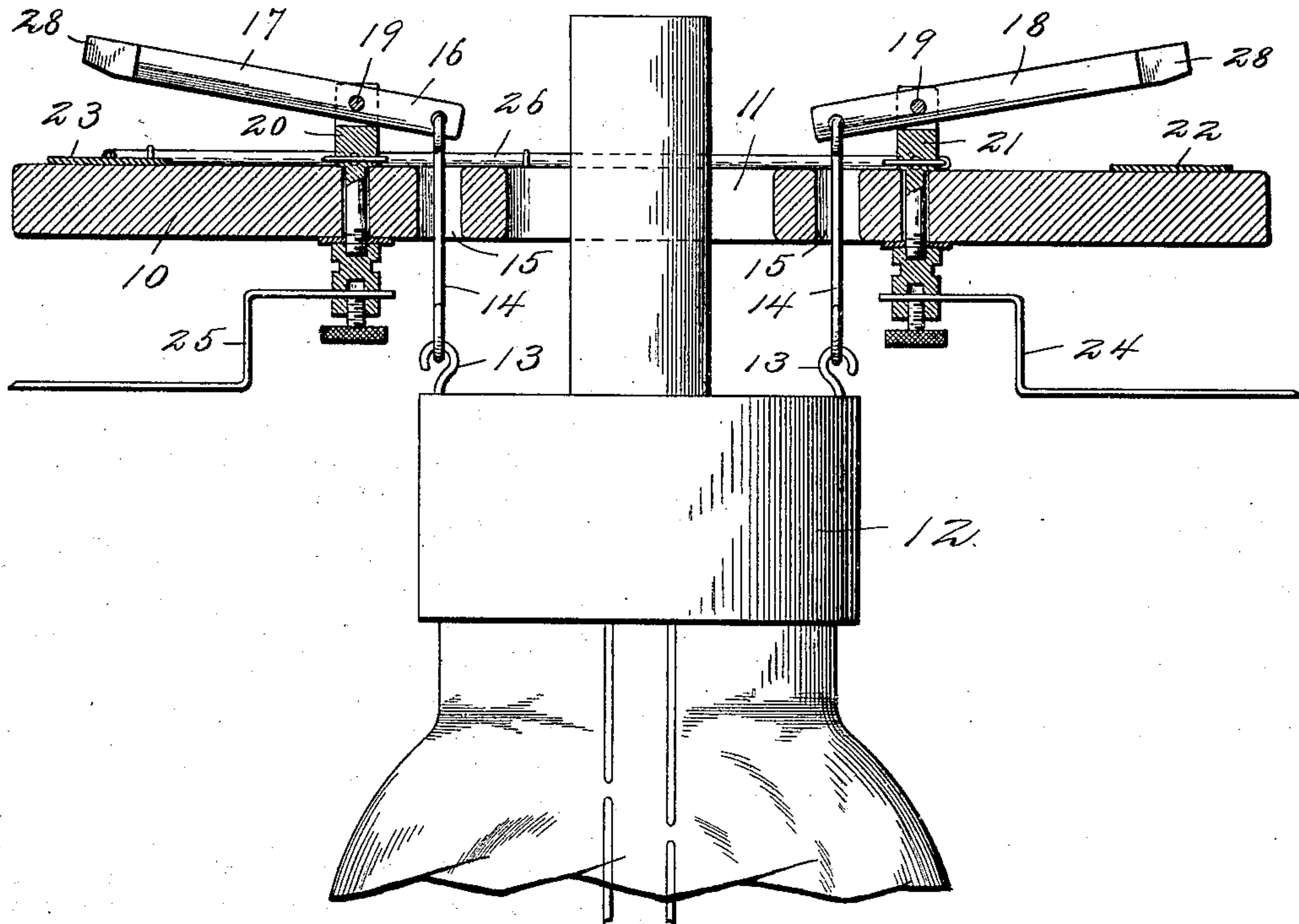
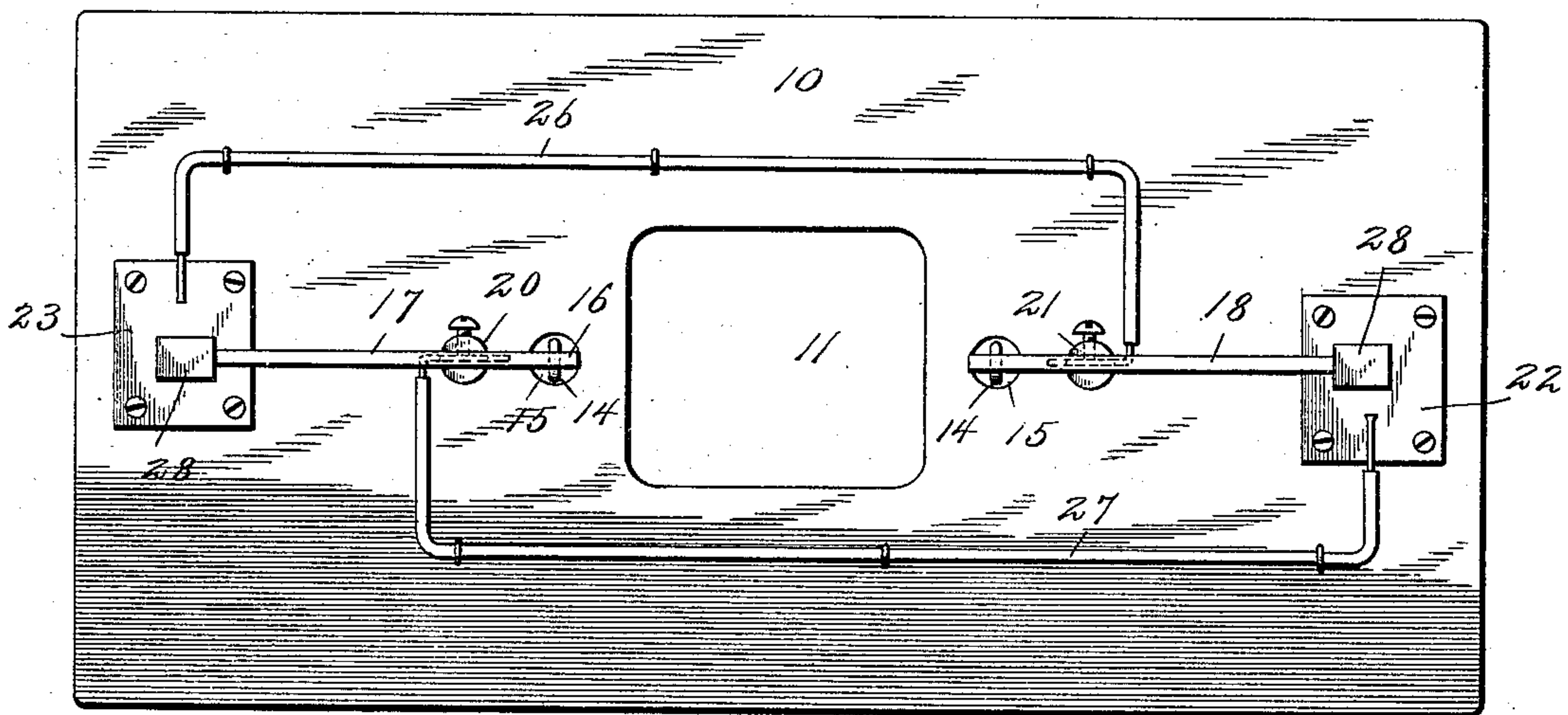


FIG. 2.



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UNITED STATES PATENT OFFICE.

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ARC-LIGHT HANGER-BOARD.

SPECIFICATION forming part of Letters Patent No. 698,792, dated April 29, 1902.

Application filed June 15, 1901. Serial No. 64,718. (No model.)

To all whom it may concern:

Be it known that we, HIRAM M. BUCK and WILLIAM H. STRIPPY, citizens of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Arc-Light Hanger-Boards, of which the following is a specification.

This invention relates to arc-light hanger-boards; and the principal object of the invention is to provide, in connection with a hanger-board for electric-arc lights, improved means whereby in case of accident to a single lamp on a circuit only such single lamp will be disabled and the other lamps in the same circuit will not be interfered with, as is the case at present. By a mechanical arrangement hereinafter set forth, and illustrated in the accompanying drawings, when any particular lamp becomes disabled or disconnected, either partly or wholly, said lamp is automatically cut out and the current is caused to pass through short-circuit wires, proceeding around and not through the lamp, thus maintaining the continuity of the current and supplying the necessary electrical energy to the remaining lamps in the circuit.

With the above general objects in view the invention consists in the novel construction, combination, and arrangement of parts hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a sectional view of a hanger-board, showing the lamp-hanging device and circuit elements connected therewith. Fig. 2 is a top plan view of the board.

Similar numerals of reference designate corresponding parts in both figures of the drawings.

In carrying out the present invention we employ a hanger-board 10, of any suitable non-conducting material, with or without a central aperture 11 for the reception of the upper portion of an electric-arc lamp 12, which is hung beneath the board, as shown in Fig. 1, being for that purpose provided with oppositely-located hooks 13.

The lamp is supported through the medium of the hooks 13 by means of hanger-rods 14, which extend upward through openings 15 in the hanger-board and connect pivotally to the shorter arm 16 of a pair of counterbalance-

levers 17 and 18, fulcrumed intermediate of their ends at 19 on binding-posts 20 and 21.

The counterbalance-levers 17 and 18 are arranged above the hanger-board, and when either one of said levers is relieved of the weight of the lamp the longer arm of said lever in falling is brought into engagement with a contact 22, consisting, preferably, of a metal plate secured to the upper surface of the board 10. It will be understood that two contacts 22 and 23 are employed and arranged, respectively, in the paths of the longer arms of the counterbalance-levers 17 and 18. The binding-posts 20 and 21 extend beneath and project downward from the lower surface of the hanger-board 10, where they are adapted to receive the circuit-wires 24 and 25. From the contact 23 a by-wire or short-circuit wire 26 extends to the oppositely-located binding-post 21, while a like wire 27 extends from the other contact 22 to the binding-post 20. The longer arms of the counterbalance-levers are also preferably provided with weights 28, so as to insure the prompt falling of the levers and the maintenance of an efficient electrical contact between such levers and the plates with which they engage.

The normal circuit is through the wire 24, binding-post 21, lever 18, hanger-rod 14, lamp opposite hanger-rod, lever 16, binding-post 20, and circuit-wire 25. Should a lamp become disconnected from one of the hanger-rods, the lever with which said rod connects—for example, the lever 18—will fall until it engages the contact 22, whereupon the circuit will pass from the wire 24 through the binding-post 21, lever 18, contact 22, short-circuit wire 27, binding-post 20, and circuit-wire 25. Should the lamp become disconnected at the opposite side, then the circuit will be as follows: circuit-wire 25, binding-post 20, lever 17, contact 23, wire 26, binding-post 21, and circuit-wire 24. Should the lamp become entirely disconnected from both of the hanger-rods, then the circuit will pass through the wire 24, binding-post 21, wire 26, contact 23, lever 17, binding-post 20, and circuit-wire 25.

From the foregoing description it will be seen that when the lamp becomes disconnected, detached, or disabled such lamp will be automatically cut out of the circuit and will

therefore not interfere with the other lamps in the circuit. A switch of any ordinary design may be attached to the board for the purpose of cutting out the lamp while repairing or changing the same and without interfering with the working of the other parts of the device.

We do not desire to be limited to the details of construction and arrangement hereinabove set forth and accordingly reserve the right to change, modify, or vary the construction within the scope of the appended claims. For instance, any kind of circuit-closer may be used in place of the plates 22 and 23.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. An arc-light hanger-board comprising a pair of counterbalance-levers, binding-posts on which the counterbalance-levers are pivoted and with which they are electrically connected, suspending means whereby a lamp is supported by the counterbalance-levers, and electrically-connected contacts arranged in the paths of movement of the longer arms of the counterbalance-levers.

2. An arc-light hanger-board comprising a pair of counterbalance-levers, circuit-wires, binding-posts on which the counterbalance-levers are pivoted and associated with the circuit-wires and electrically connected with the

counterbalance-levers and contacts arranged in the paths of movement of the longer arms of the counterbalance-levers and with which the binding-posts are also electrically connected, and lamp-suspending means connected with the shorter arms of the counterbalance-levers in such a manner as to normally hold the longer arms of the latter out of engagement with the contacts.

3. An arc-light hanger-board comprising circuit-wires, oppositely-located binding-posts for the circuit-wires, oppositely-located counterbalance-levers fulcrumed on the binding-posts and electrically associated therewith, contacts arranged in the paths of movement of the longer arms of the counterbalance-levers when relieved of the weight of the lamp, short-circuit wires connecting the contacts with the binding-posts, and lamp-hanger rods connected with the shorter arms of the counterbalance-levers in such a manner as to hold the longer arms of the latter out of engagement with the contacts when the weight of the lamp is supported thereon.

In testimony whereof we affix our signatures in presence of two witnesses.

HIRAM M. BUCK.

WILLIAM H. STRIPPY.

Witnesses:

EDWARD G. WARD,

JOHN W. BUCK.