

(No Model.)

G. E. PAINTER.
ELECTRIC SWITCH.

No. 466,508.

Patented Jan. 5, 1892.

Fig. 1.

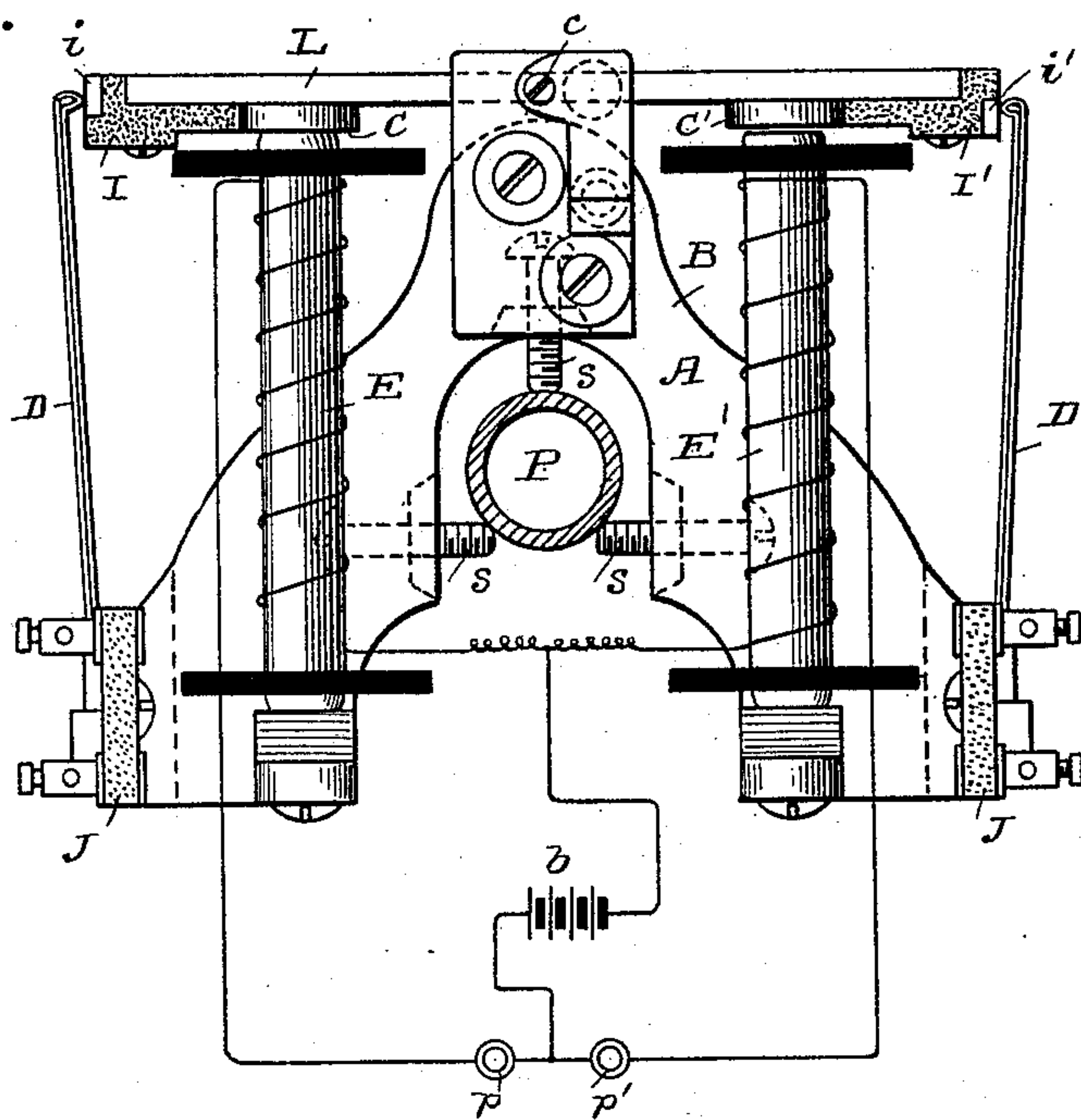
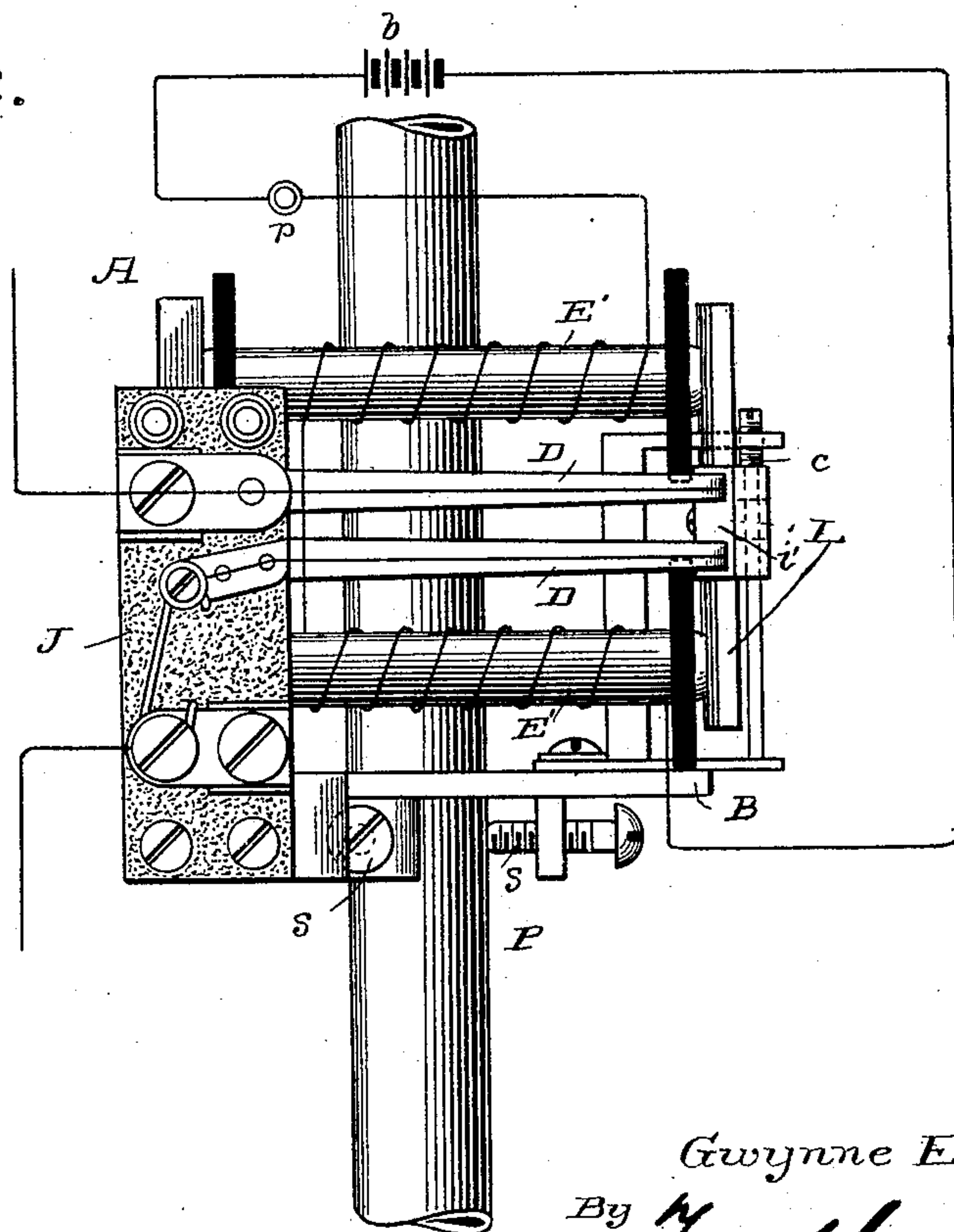


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

GWYNNE E. PAINTER, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF
TO JAMES F. MORRISON, OF SAME PLACE.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 466,508, dated January 5, 1892.

Application filed March 17, 1891. Serial No. 385,399. (No model.)

To all whom it may concern:

Be it known that I, GWYNNE E. PAINTER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Electric Switches, of which the following is a description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention is an improvement in electromagnetically-operated switches for electrical circuits, and particularly where the circuits are employed in connection with chandeliers or other pendent collections of lamps which it is necessary or convenient to operate from a distance.

The invention consists in so constructing a switch that it shall grasp the pipe which supports such collections of lamps and be easily removable.

The various features of the invention will be referred to in the following description and appended claims in connection with the accompanying drawings, in which—

Figure 1 is a top plan view of my device with the magnet-circuits in diagram. Fig. 2 is a side elevation of the device shown in Fig. 1.

In Fig. 1 of the drawings I have shown a double-pole switch A, illustrating my invention. In this figure, B is a yoke provided with set-screws *s s s*, adapted to engage the pipe P. Upon the yoke B are supported two pairs of electro-magnets E E E' E' in circuit with a battery *b*. This circuit is provided with open-circuit push-buttons *p p'*, and is arranged so that either of the pairs of magnets can be put in circuit with the battery. Mounted upon pivot *c*, which is supported by the yoke B, is a rocking lever L, which carries two armatures C C', which are arranged to be attracted by the magnets E E E' E'. Upon the ends of the lever L are secured insulating-blocks I I', upon which are contact-pieces *i i'*, the contact *i* being upon the upper end and the contact *i'* upon the lower outer face of the insulating-blocks I I'.

As seen in Fig. 2, two spring-contacts D D, insulated from each other, are adapted to engage the ends of the lever L and will rest upon the insulation or the contact, according to the position of the lever. The contacts D

D complete one side of a circuit leading from generator to translating devices. Insulating-blocks J are attached to the yoke B, upon which are fastened the various binding-posts for the main and magnet circuits and fuses. This construction is duplicated for the opposite side of the circuit.

In the position shown in Fig. 2 circuit is made through the spring-contacts D D and contact-plate *i'*. If the open-circuit push-button P' be closed, the pair of electro-magnets E' E', Fig. 1, one of which is shown, will be energized and will attract the armature C' and lever L, and the contacts D D be shifted thereby to the insulating-blocks I I' and the circuit broken on both positive and negative sides of the circuit simultaneously.

Were the open-circuit push-button P operated to close the circuit of the magnets E E, the armature upon the lever L corresponding thereto would be attracted and the circuit completed again.

It will be readily understood that the magnet-circuits might be run to any point in any installation and the open-circuit push-buttons be located so as to answer the convenience of those using them.

Many of the minor details of the device might be changed in a number of ways without departing from the invention, and I do not therefore limit myself to the specific construction herein set forth.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An automatic switching device for electric circuits, comprising a yoke-shaped supporting-base, electro-magnets fixed thereon, a rocking lever pivotally supported at the apex of said base, armatures carried by the said lever and under the influence of the electro-magnets, contact-plates upon the ends of the lever, contact-springs completing the main circuit through the said plates, and a circuit independent of the main circuit energizing the electro-magnets.

2. An automatic switching device for electric circuits, comprising a yoke-shaped supporting-base, electro-magnets fixed thereon, a rocking lever pivotally supported at the apex of said base, armatures carried by the said le-

ver under the influence of the electro-magnets, insulating-blocks upon the ends of the lever and contact-plates upon the blocks, contact-springs completing the main circuit through the said plates, and a circuit independent of the main circuit energizing the electro-magnets.

3. An automatic switching device for electric circuits, having a yoke-shaped supporting-base, means upon the inner apex thereof detachably engaging the support to which the device is attached, and electro-magnets fixed to the legs of the base and projecting from their points of support back toward the apex thereof, whereby the space between the legs of the base is left free, so that the device may be easily attached to or detached from its support.

4. An automatic switching device for electric circuits, comprising a yoke-shaped supporting-base, set-screws projecting into the inner apex thereof and engaging the support to which the said device is attached, electro-magnets upon said base, a rocking lever carrying armatures influenced by the electro-magnets, contact-blocks upon the lever, contact-springs completing the main circuit through the said blocks, and a separate independent circuit energizing the electro-magnets.

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

GWYNNE E. PAINTER.

Witnesses:

ED. S. DU BOIS,
F. P. DEVON.