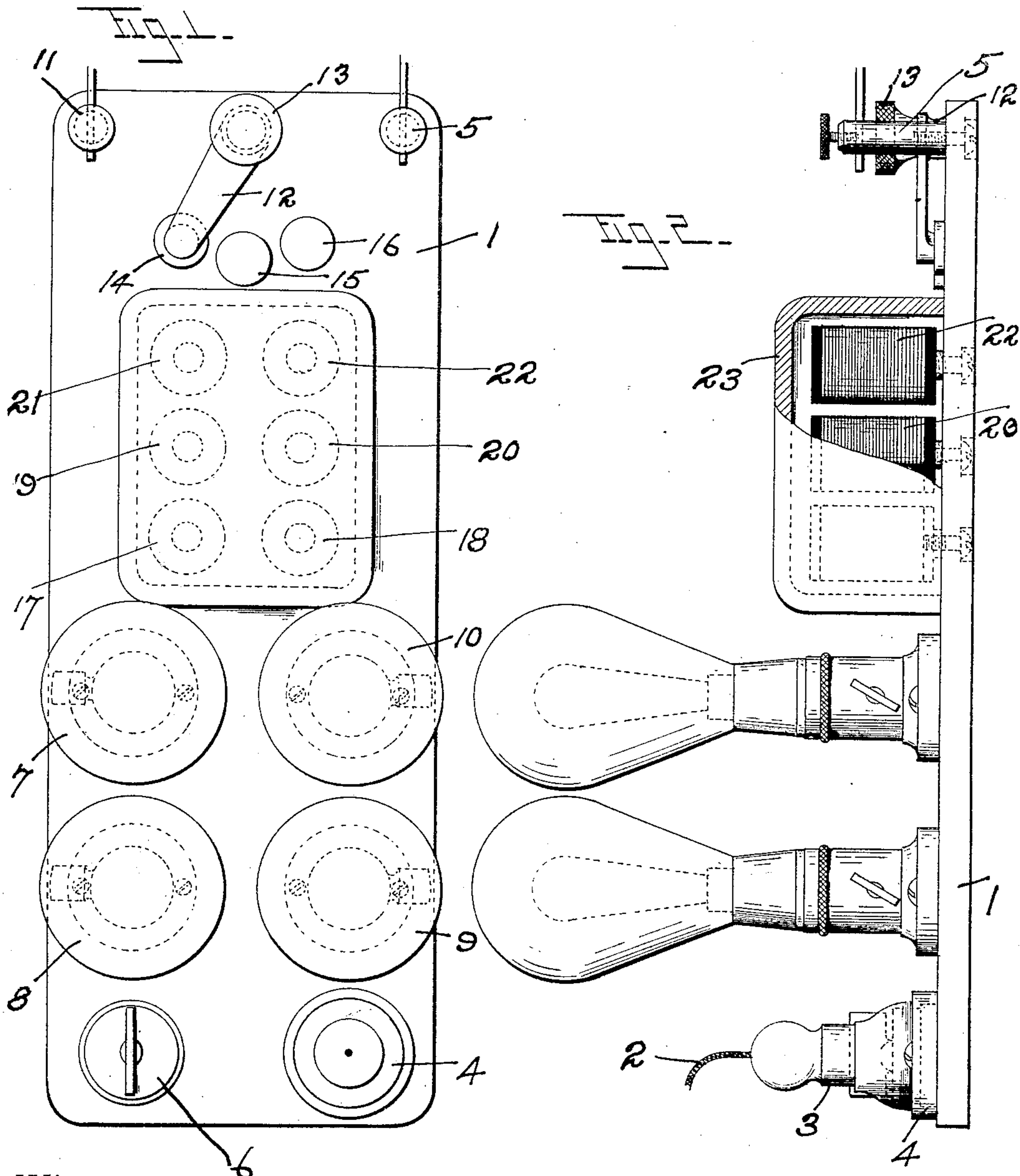


J. J. HOGAN.
CURRENT CONTROLLING DEVICE.

No. 572,507.

Patented Dec. 1, 1896.



Witnesses.

George E. Hall
James R. Bolton

Inventor.

John J. Hogan
by Joseph Sheldon

Attorney.

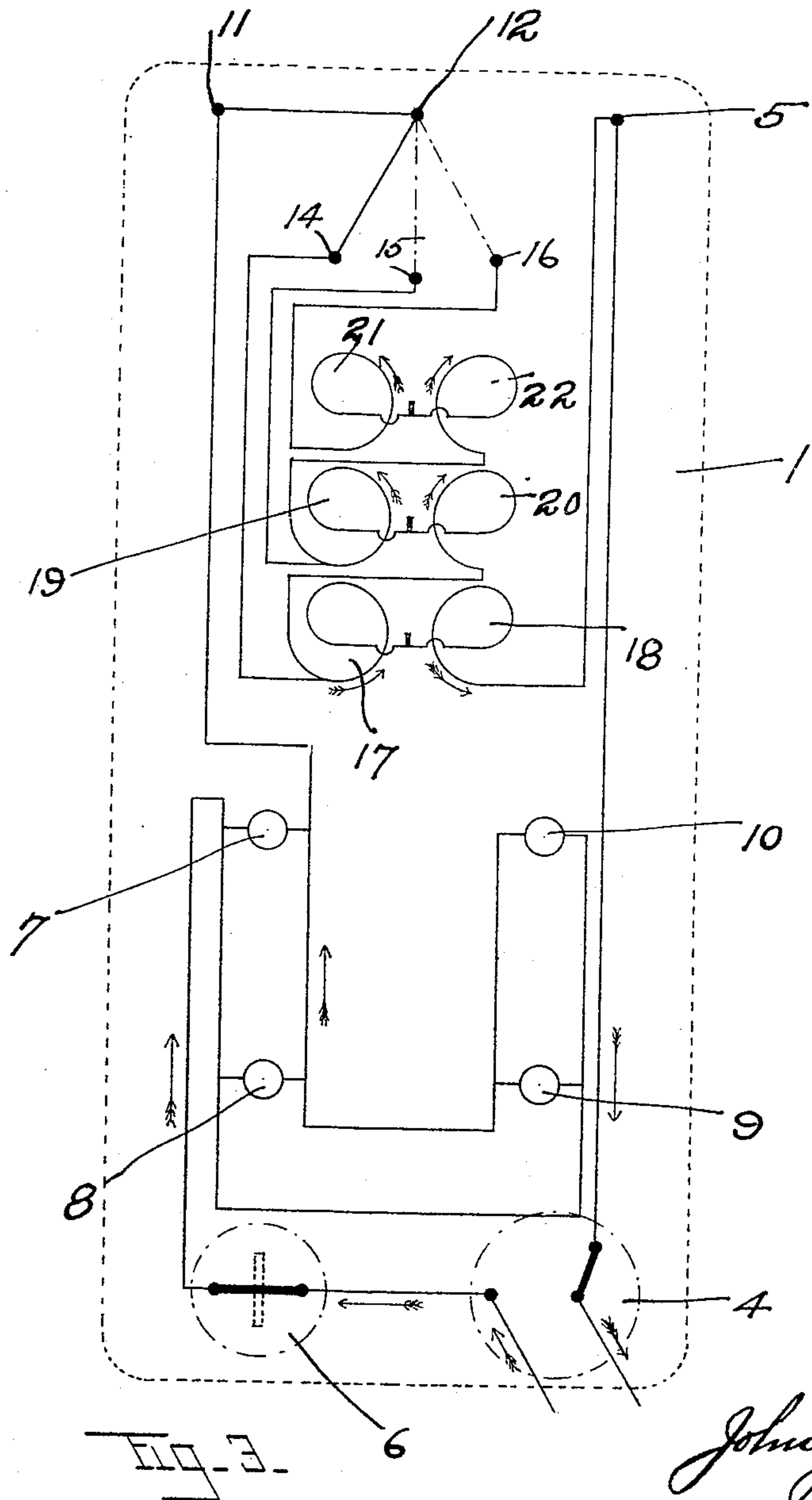
(No Model.)

2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JOHN J. HOGAN, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
EASTERN ELECTRIC COMPANY, OF SAME PLACE.

CURRENT-CONTROLLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 572,507, dated December 1, 1896.

Application filed July 24, 1896. Serial No. 600,349. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HOGAN, a citizen of the United States of America, residing at the city of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Devices for the Application of Resistance to the Current in Electrical Circuits of High Voltage and for Controlling Voltage Without Wasting Current; and I do hereby 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 the figures of reference marked thereon.

My invention consists of a useful combination of several well-known electrical devices conveniently assembled on one and the same base in compact and useful form by which from a circuit of high potential within limits a current of any desired intensity may be taken off in measured quantity and applied to various useful purposes for which battery-currents have hitherto been commonly employed, to which end it includes in one convenient portable apparatus a series of graduated resistances and means for making various connections therewith, electric-lamp indicators in circuit for approximately showing the amount of passing current, means for throwing the high-voltage current into and out of the apparatus at will, and a safety-fuse for protecting the apparatus from injury from currents of greater quantity or intensity than the apparatus is designed to be operated with.

To enable those skilled in the art to make and use my invention, I describe the same as follows, to wit:

Figure 1 is a view of the device looked at from above. Fig. 2 is a side view of the same, partly in section. Fig. 3 is a view of the same looked at from below.

1 is a base of wood or other proper material, to which the different parts of the device are fastened. It is of a size proportioned to the amount of resistance provided for.

2 is an insulated cord to connect the device with the electric street-light circuit or other high-voltage circuit by fastening one end of the cord to the circuit in place of a lamp or

otherwise by a screw and nut, and the other end with the device by means also of a screw and nut at the plug 3.

4 is a receptacle for a fuse that secures the safety of the apparatus by melting and opening the circuit whenever a greater current is introduced into the apparatus than that for which it is designed and made. Said receptacle is to hold the fuse and at the same time to act as a binding-post for the introduction of the current into the apparatus by the cord 2.

5 and 11 are the binding-posts at the other end of the base, from which the currents are taken off to be utilized.

6 is a snap-switch placed in the circuit, by which the current is introduced into or shut out of the device at pleasure.

7 8 9 10 are each an incandescent lamp in multiple arc of a known candle-power, and by their incandescence indicating approximately the amount of current that passes through the device.

12 is an arm swinging on a pivot 13, to be moved at pleasure along an arc in which are placed the buttons 14, 15, and 16 and more in proportion to the amount of resistance that it is desired to have introduced into the current, said buttons being electrically connected with certain resistance-coils 17, 18, 19, 20, 21, and 22 in graduated and progressively-increasing amount, as indicated by diagram in Fig. 3, so that a regularly graded and measured amount of resistance can be applied at pleasure and the same be shown on the arc.

The operation is as follows: If an electric bell is to be operated or any apparatus requiring a small current of low potential, said apparatus is placed in parallel with the graduated resistance-coils indicated in the drawings. The current being turned into the apparatus by means of the snap-switch 6, the switch-arm 12 is then turned to contact with the button, affording by its connections the amount of resistance required to effect the particular result desired. The amount of current passing through the apparatus will be approximately shown by the indicator-lamps 7 8 9 10 in circuit.

I claim as my invention and desire to secure by Letters Patent—

The herein-described apparatus for taking

off specific low-voltage currents of measured quantity from large currents of high potential, consisting of a suitable base-board 1, connecting-plug 3, fuse-receptacle 4 and safety-
5 fuse, snap-switch 6, a plurality of incandescent lamps in multiple arc, a plurality of resistance-coils 17, 18, 19, 20, 21, 22, a series of contact-buttons 14, 15, 16, in graduated circuit with said resistance-coils, radial switch-arm 12, contacting with said buttons, and binding- 10 posts 5, 11; all substantially as and for the purpose specified.

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

JOHN J. HOGAN.

Witnesses:

JAMES R. BOLTON,
JOSEPH SHELDON.