

(No Model.)

C. WIRT.
ELECTRIC SWITCH.

No. 460,618.

Patented Oct. 6, 1891.

Fig. 1.

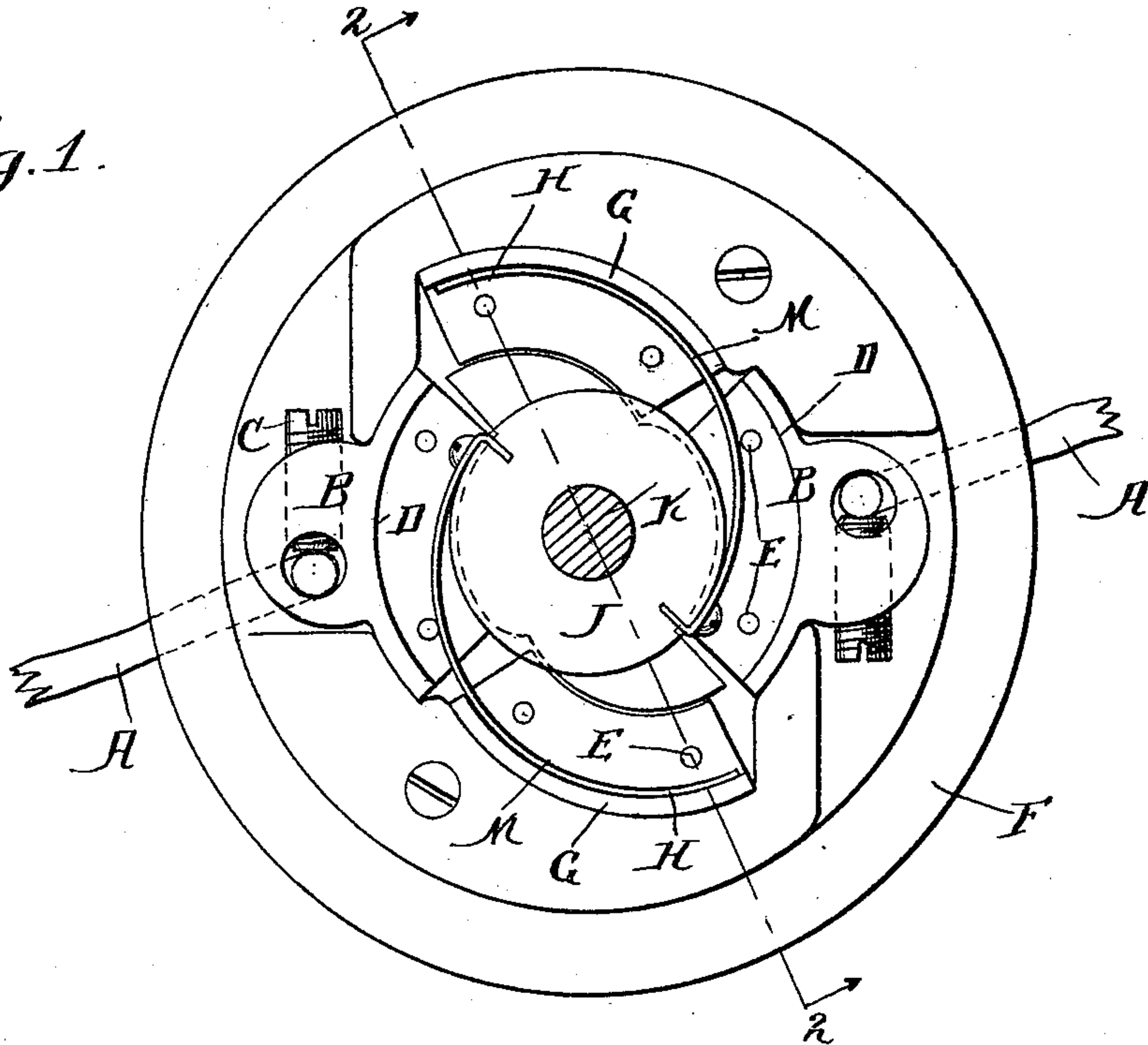
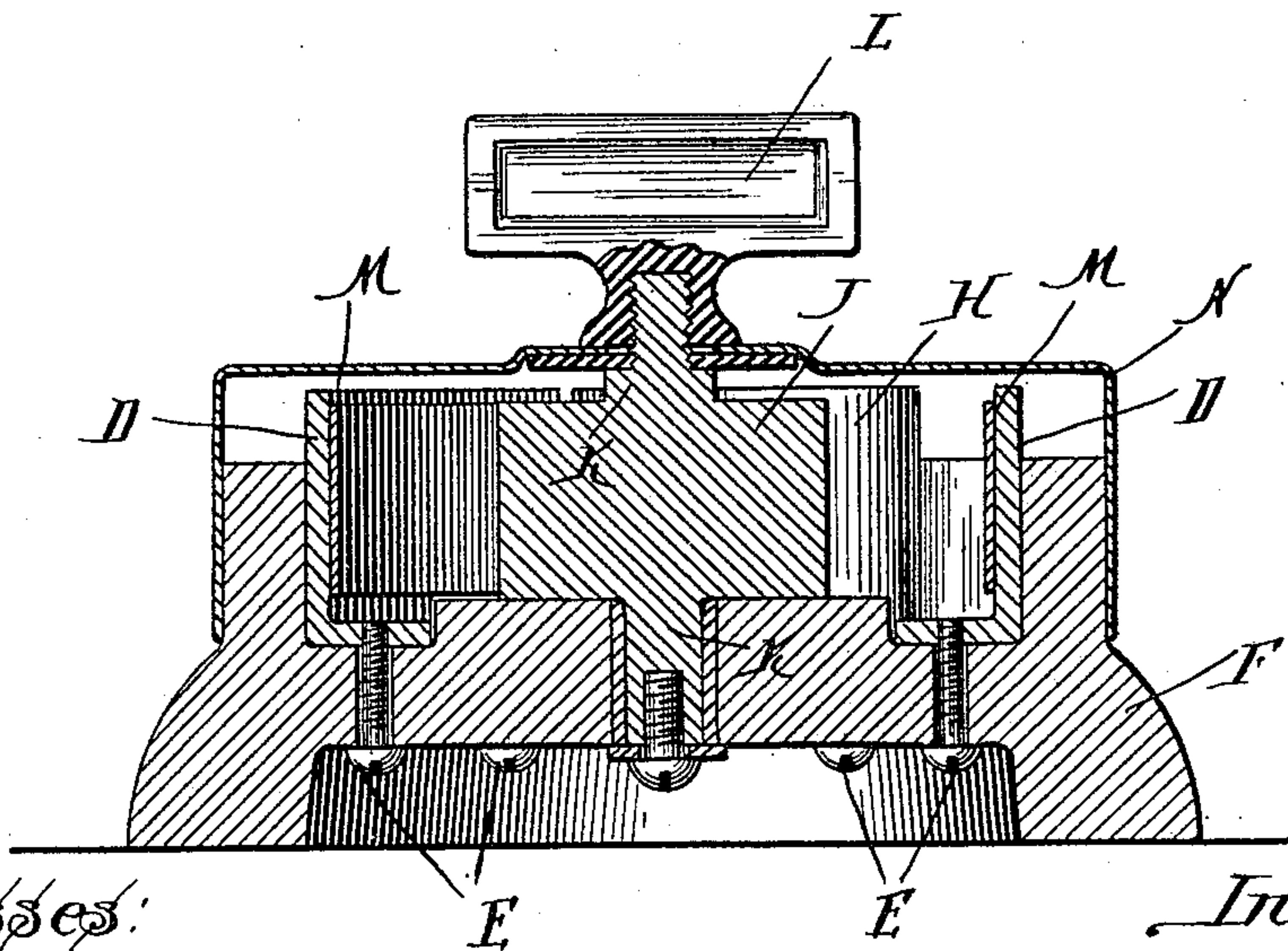


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

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ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 460,618, dated October 6, 1891.

Application filed January 10, 1891. Serial No. 337,335. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WIRT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented a certain new and useful Improvement in Incandescent Switches, of which the following is a full, clear, and exact specification.

My invention relates to circuit-breakers,
10 and has for its object to provide a convenient circuit-breaker, particularly such as is adapted for use in connection with incandescent lamps and the like.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of the same with the cap or cover removed. Fig. 2 is a sectional view.

Like parts are indicated by the same letters
20 in both figures.

A A are conductors which lead to the circuit-breaker, and each passes through an aperture in blocks B B, being secured firmly in contact by the screws C C. The blocks B B
25 are provided each with a curved face D D, the curvature thereof being concentric with the rotating portion of the circuit-breaker. Each of these blocks is firmly secured by means of screws E E to the insulation-body F
30 of the circuit-breaker.

G G are somewhat similar blocks disposed substantially on a line at right angles to the line through the center of the blocks B B, and provided each with a cam or eccentric face
35 H H. These blocks are in like manner secured to the insulation F. Each of these blocks is insulated from the others. Concentric with the curved surfaces D D is pivoted the metallic drum J on the shaft K, to which
40 is removably secured the insulated handle L, and on the exterior of the drum and at opposite sides thereof are secured the springs M M, adapted to engage and slide upon the surfaces D D and H H.

N is an exterior cap which covers the outward portions of the device. The central rotating drum and shaft are insulated from all of the blocks except when the springs are in contact therewith.

50 The use and operation of my invention are as follows: The springs in the position shown

in Fig. 1 engage the faces H H on the blocks G G; but if the drum be rotated by means of the handle L in the direction indicated by the arrows and the rotation be continued for
55 a sufficient distance it is obvious that the ends of the springs M M will ultimately reach the ends of the cam or eccentric faces H H, and will drop therefrom against the faces D D of the blocks B B. The construction of
60 these faces and the springs is such that the springs are in contact with the faces throughout their entire opposed surface at any given time, thus making a very perfect and extensive and rubbing contact. In the position
65 now indicated it is clear that the circuit is closed, so as to connect the conductors A A with the lamp or other translating device in the circuit, if the same is in series with this circuit-breaker. It will now be obvious that
70 the device cannot be turned in the opposite direction, for the ends of the springs M M will in that event engage the projecting surfaces or ends of the block G G; but if this direct rotation be continued there will come a time
75 when the ends of the springs M M will drop from contact with the faces D D and will re-engage the faces H H. When this action takes place, it is apparent that inasmuch as the curved faces H H are eccentric with reference to the axis of rotation, while the faces
80 D D are concentric with reference thereto, the ends of the springs M M will be required to pass through a considerable interval before they engage the faces H H, and hence the
85 chance of arcing over is obviated.

It is quite apparent that my device could be greatly changed in its construction and use and mode of operation without departing from the spirit of my invention.
90

The contact-blocks G G could of course be dispensed with, and the surface of the insulated body itself be employed, if desired. I call these two blocks the "idle-blocks," and the blocks B B, I call the "circuit-making
95 blocks."

I claim—

1. In a circuit-breaker, the combination of a central rotating portion with extended spring-arms, contacts having faces concentric
100 with such rotating part, and similar contacts having faces eccentric with reference to the

center of such rotating part and having faces exposed to such arms, one pair of such contacts being connected with the electrical circuit to be controlled.

5 2. In a circuit-breaker, the combination of a central rotating portion with extended spring-arms, contacts having faces concentric with such rotating part, and similar contacts having faces eccentric with reference to the
10 center of such rotating part and having faces exposed to such arms, the contacts having concentric faces being connected with the electrical circuit to be controlled.

3. In a circuit-breaker, the combination of

a central rotating portion with extended 15
spring-arms, contacts having faces concentric with such rotating part, and other insulated faces eccentric with reference to the center of such rotating part and having faces opposed to such arms, the eccentric surface of said 20
faces approaching at one end nearer to and at the other end departing farther from the axis of the rotating part than the concentric surface.

CHARLES WIRT.

Witnesses:

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