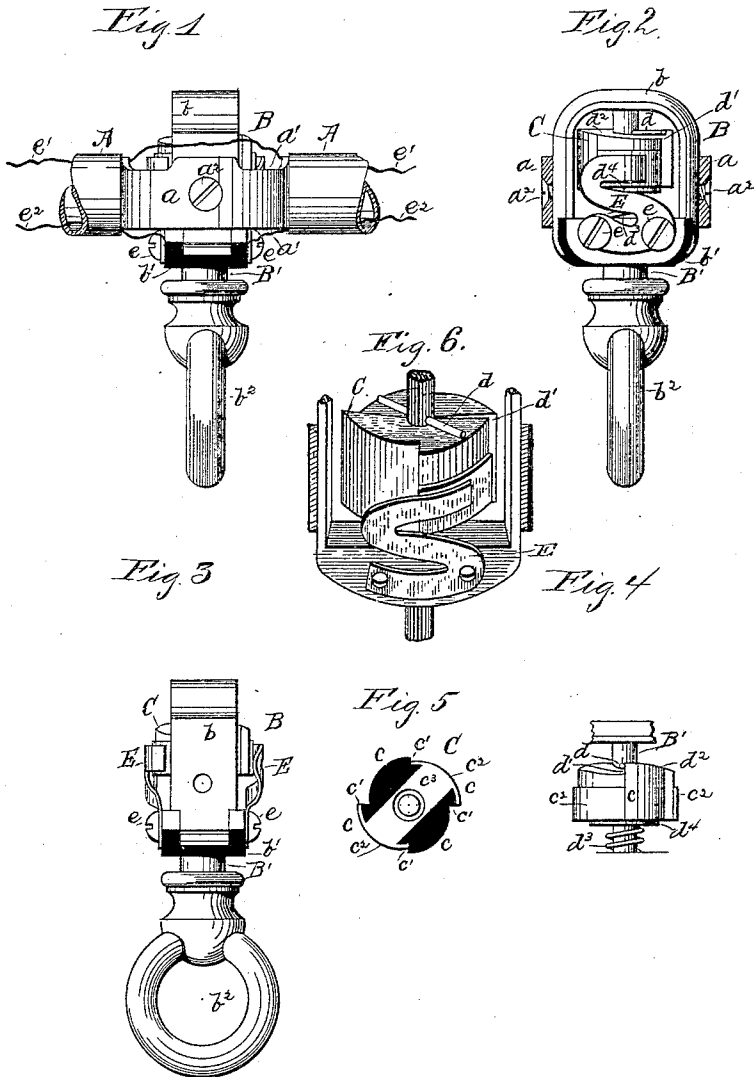


(No Model.)

S. BERGMANN.
ELECTRIC CUT-OUT.

No. 445,363.

Patented Jan. 27, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

SIGMUND BERGMANN, OF NEW YORK, N. Y.

ELECTRIC CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 445,363, dated January 27, 1891.

Application filed February 17, 1890. Serial No. 340,700. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND BERGMANN, of New York, county and State of New York, have invented a certain new and useful Improvement in Electric Cut-Outs, of which the following is a specification.

The invention consists in a pendant or other fixture tube or arm having a seat adapted to receive a cut-out and a cut-out removably secured in said seat.

I will describe a cut-out embodying my invention, and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is a view of a cut-out attached to a tube or arm and embodying my improvement. Fig. 2 is a side view of a cut-out with a portion of the tube or arm broken away. Fig. 3 is a side view of the cut-out, taken at right angles to Fig. 2; and Figs. 4 and 5 are details. Fig. 6 is a perspective view of the cut-out.

Similar letters of reference designate corresponding parts in all the figures.

Referring by letter to the drawings, A designates a portion of a tube or arm through which electric wires are designed to pass. The tube has a seat within which the cut-out B is removably secured. This seat consists of outwardly-bowed portions *a*, and the two sides *a'* of the tube are cut away or open, so that the frame of the cut-out may project at each side. I have shown the cut-out secured to the portions *a* by screws *a*².

When the cut-out is secured within the seat, the parts may be hidden from view and protected by a suitable shell—such, for instance, as that shown in my pending application, Serial No. 338,132.

The cut-out B has a frame consisting of a metal portion *b* and a block *b'* of insulating material. The metal portion *b* has its ends secured to the block *b'*, and as a means therefor I have shown the ends of the portions *b* reduced and seated in depressions in the block *b'*.

B' designates a rotary shaft having a bearing through the block *b'* and its end bearing in the metal portion *b*. The outer end of the shaft *B'* is provided with a finger-piece *b*³.

C is a cut-out wheel, of insulating material, mounted on the shaft *B'*. The wheel *C* has

cam-surfaces *c* on its edge and radial shoulders *c'*. Two opposite surfaces *c* are provided with metal contact-pieces *c*², which are connected by an integral bridge-piece *c*³ at one side of the wheel.

The wheel *C* is designed to rotate with the shaft *B'* when said shaft is moved in one direction, and also to have a slight longitudinal movement on the shaft.

As a means for rotating the wheel *C* with the shaft, a pin *d* is extended transversely through the shaft and comes in contact with shoulders *d'* on one side of the wheel. When the shaft *B'* is rotated in the opposite direction, however, the pin *d* will ride over the cam-surfaces *d*² and push the wheel longitudinally on the shaft without imparting rotary motion thereto. A spring *d*³, bearing at one end against the block *b'*, forces the wheel back to its original position when the pin *d* shall have reached shoulders *d'*. The spring *d*³ is insulated from the bridge-piece *c*³ by a washer *d*⁴ of insulating material.

E designates resilient contact-pieces secured rigidly at one end to the insulating-block *b'* at opposite sides thereof by means of binding-screws *e* and bearing at the free ends upon the cam-surfaces *c*. These resilient contact-pieces I have shown as substantially S-shaped; but the shape is immaterial.

A line-wire *e'* leads directly through the cut-out without a break. The other wire *e*², however, has a break and has its ends connected to binding-screws *e* of the opposite contact-pieces *E*, so that the ends may be drawn out of the seat with the cut-out when so desired. In this construction, it will be observed, the circuit will be completed when the contact-pieces *E* are in engagement with the contact-pieces *c*², and the current will be broken or cut out when the contact-piece *E* bears upon the insulating-surfaces *c*. It will also be observed that the cut-out may be wholly removed from its seat in the fixture, and that when the cut-out is in position its frame extends transversely to the length of the tubing and at right angles to the length of the seat.

Having described my invention, what I claim is—

1. The combination, with a fixture tube or arm having a seat for a cut-out open at two

of its sides, of a cut-out having its frame removably secured in said seat transversely to the length of the tube or arm, substantially as specified.

- 5 2. The combination, with a cut-out substantially such as described, of a fixture tube or arm having a seat open at its sides, the

frame of the cut-out passing transversely through the seat, and screws for securing the cut-out and frame within the seat.

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