No. 648,850. Patented May 1, 1900.

C. A. CLARK.

ELECTRIC LINE CUT-OUT.

(Application filed June 28, 1898.)

(No Model.)

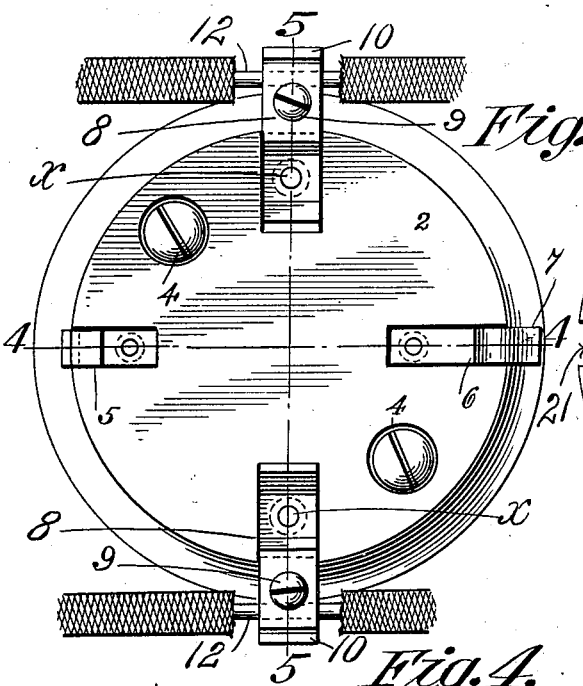

Fig. 1.

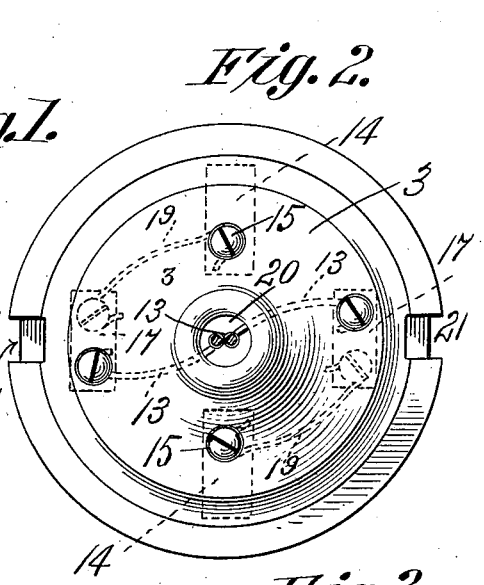

Fig. 2.

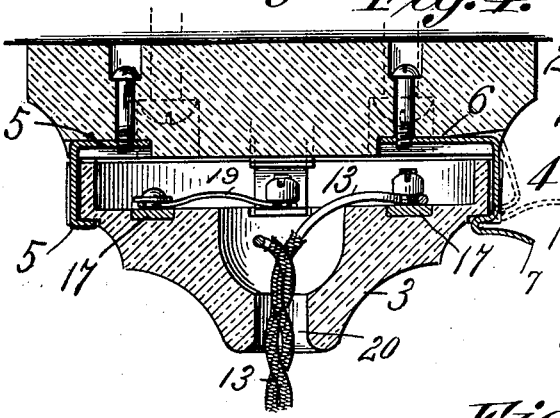

Fig. 4.

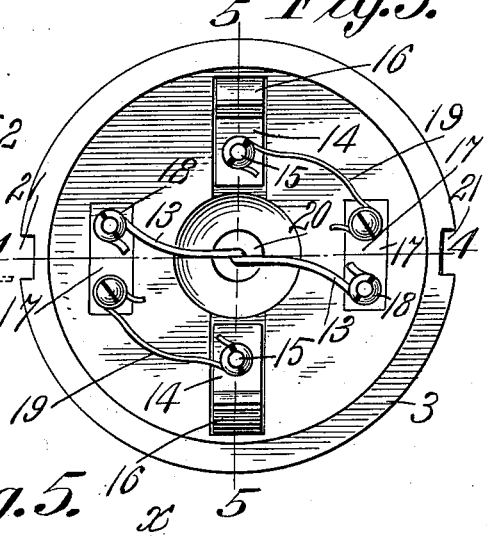

Fig. 3.

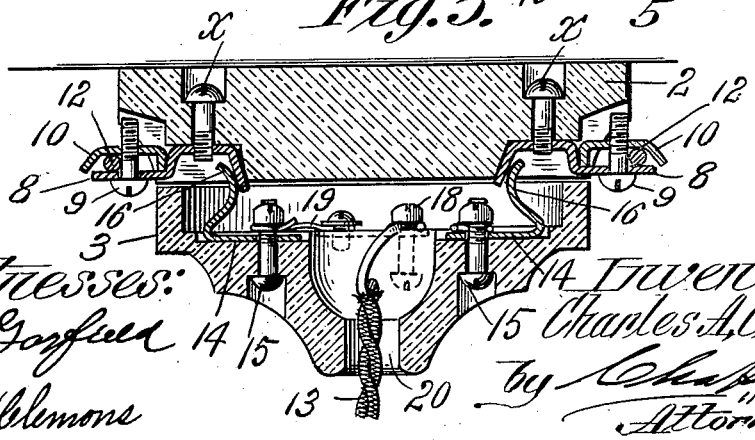

Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES A. CLARK, OF HARTFORD, CONNECTICUT.

ELECTRIC-LINE CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 648,850, dated May 1, 1900.

Application filed June 28, 1898. Serial No. 684,652. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. CLARK, a citizen of the United States of America, residing at Hartford, in the county of Hartford and State of Connecticut, have invented new and useful Improvements in Electric-Line Cut-Outs, of which the following is a specification.

This invention relates to cut-outs for electric conducting-lines, and particularly to cut-outs for use in such lines with which are connected electric lamps, the objects being to provide an improved cut-out for the above and other similar uses whereby the manipulation of the device for separation of the parts thereof and for reassembling the same for use and in connecting the line-wires therewith is greatly facilitated and to provide a cut-out in which the electrical connections of the two sections of the device are of an improved construction in respect to efficiency of electrical contact; and the invention consists in the peculiar construction and arrangement of the various elements of the device, all as hereinafter fully described, and more particularly pointed out in the claim.

In the drawings forming part of this specification, in which the parts of the device are shown somewhat enlarged relative to their normal dimensions, Figure 1 is a plan view of the inner side of the base of the cut-out. Fig. 2 is an outside plan view of the removable section or cap of the cut-out. Fig. 3 is a plan view of the inner side of said cap of the cut-out, showing thereon certain electrical connections hereinbelow described. Fig. 4 is a sectional view of the cut-out on line 4 4, Fig. 3, showing certain electric conductors below referred to. Fig. 5 is a sectional view on line 5 5, Fig. 3.

The said several figures illustrate a cut-out embodying my invention.

Referring to the drawings, 2 indicates the base of the cut-out, and 3 the cap of the cut-out, said two parts being made of porcelain or other non-conducting material.

In Fig. 1, 4 4 indicate the heads of screws by which the base of the device is secured to the ceiling of a room.

Heretofore cut-outs for the purpose herein described have been constructed in such manner that the base and the cap thereof have been held in operative relations one against the other by screws. This has been found to be inconvenient and requiring in case of exigency too much time for the separation of and for reconnecting said two parts. Therefore to obviate said inconveniences the above-described parts of the cut-out are provided with improved uniting connections, as herein shown, which are quickly manipulated and securely hold the same in united operative relations. Furthermore, the manner heretofore employed for establishing and effectively maintaining electric contacts between conductors leading to said base and the conductors leading from said cap has been found to lack positiveness, and said defects are obviated by the improved construction hereinafter set forth. The said base and cap uniting connections comprise a fixed insulated cap-catch 5, secured to the under side of said base, near one border thereof, and there fixed by a screw, as shown, and an insulated spring cap-catch 6, secured in like manner to the border of said base opposite to said fixed catch. Said catch 6 has a thumb-piece 7, extending outwardly, as shown, whereby the catch may be drawn out of engagement with the border of the said cap 3 in the manner indicated in dotted lines in Fig. 4 to disengage it from the cap when the latter is to be separated from the base. Said cap-catch 5 and the cap-catch 6 both enter grooves 21 in the opposite borders of said cap when the latter is applied to the base, thereby guiding the cap and insuring its proper final position under the base. It will be clearly seen that by placing one border of said cap in said catch 5 and then springing the catch 6 slightly outward, as illustrated, the border of the cap adjoining said last-named catch may be quickly carried against the under side of the base 2 and there be instantly secured in the operative position shown in Figs. 4 and 5. It is obvious that to remove the cap from the base requires only the drawing outward of said spring-catch 6. The line-wire connections on said base comprise two metallic straps 8 8, secured thereon by screws x x or otherwise, having their outer extremities extending a convenient distance beyond the opposite borders of the base, a binding-screw 9 passing freely through each of said extremities and engaging a clamp-plate 10, between

which and said strap the line-wire 12 is held in electric engagement with said straps 8. Thus it will be seen that after securing said base to a ceiling it is the work of a moment only to connect the line-wire therewith. Referring to Fig. 5, it is seen that the inner extremities of said straps 8 8 extend downwardly and at an incline to the plane of the face of said base and constitute points of electric contact for the engagement of other similar parts on the cap 3, below described. Said cap 3 has the usual central opening 20, through which the service or lamp conductors 13 pass, the latter being connected, as below described, to two flexible or spring-contact electrical connections, each of which consists of a metallic strap 14, having a base portion, as shown, with which a screw 15 engages, whereby it is firmly held in the position shown, and having one end upturned and forming a flexible tongue or arm 16, having a curved surface for frictional electric contact or engagement with the inclined inner extremities of said straps 8 when said base and cap are united, as shown in Fig. 5, said contact being maintained by the said cap-catches 5 and 6. It will be noted that in placing the cap 3 against the base 2, as described, the said curved surfaces of the flexible arms 16 are moved more or less with abrading effect against the said inclined extremities of said straps 8, thereby serving to keep said contact-surfaces bright and insuring a perfect electric contact thereof. Said abrading action takes place each time that said cap is removed and replaced. The two wires of said conductor 13 are connected, primarily, as shown in Fig. 3, with the metal plates 17 17 by the usual screws and nuts, and by the usual fusible connections 19 19 said plates 17 are connected to said straps 14, on which are said curved arms 16.

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

In an electric-line cut-out of the class described, a base therefor, two electric-line connections on said base each comprising a metallic strap secured thereon whose inner extremity forms a contact-point for like connections on the cap of the device, and whose opposite extremity extends outwardly from the border of said base, and means on said outer extremity for securing an electric conductor thereto, means for uniting said base to said cap comprising a fixed catch on said base for engagement with the border or said cap when the latter is placed therein, and a spring-catch on said base opposite said first-named catch, combined with the cap of the device having the slots 21 in the border thereof in which said uniting-catches engage, and with electric connections for contact with the line connections of said base, and means on said cap for connecting electric-lamp conductors with said line connections, substantially as set forth.

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