

(No Model.)

C. H. CROCKETT & C. C. ALLEN.
ELECTRIC CONNECTOR AND CUT-OUT.

No. 493,754.

Patented Mar. 21, 1893.

Fig. 1.

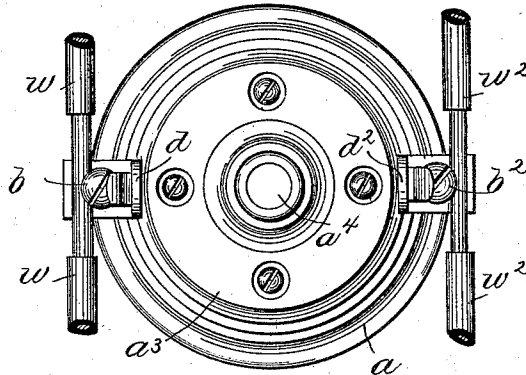


Fig. 6.

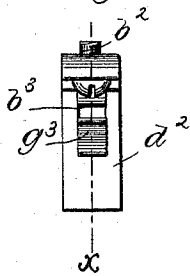


Fig. 7.

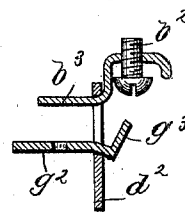


Fig. 2.

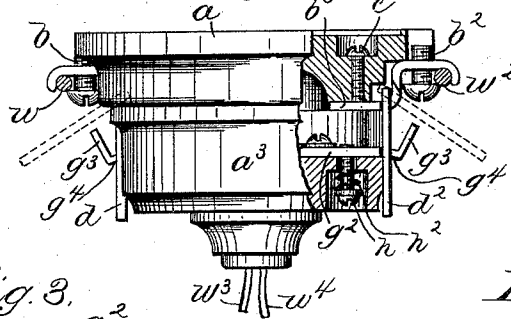


Fig. 3.

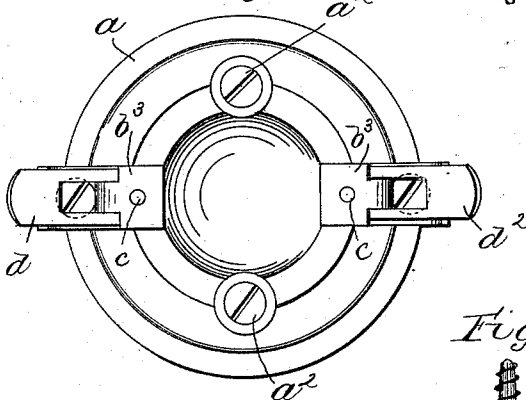


Fig. 4.

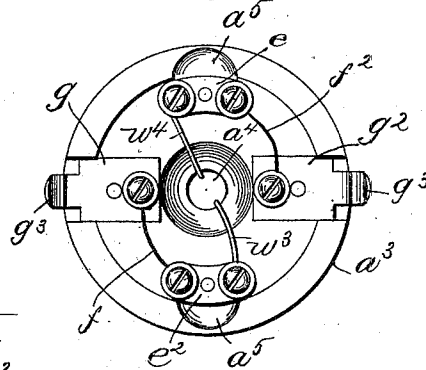
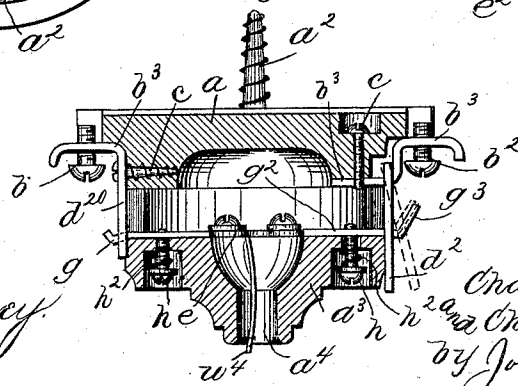


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES H. CROCKETT AND CHANCELLOR C. ALLEN, OF BOSTON, MASSACHUSETTS.

ELECTRIC CONNECTOR AND CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 493,754, dated March 21, 1893.

Application filed April 8, 1892. Serial No. 428,363. (No model.)

To all whom it may concern:

Be it known that we, CHARLES H. CROCKETT and CHANCELLOR C. ALLEN, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Electric Connectors and Cut-Outs, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Our invention relating to an electric connector and cut-out is shown embodied in a device commonly called a rosette which is employed at the junction of a branch wire or loop containing an electric lamp with the main feed wires from which the current is supplied to the lamp. Such rosettes are commonly attached to the ceiling or wall of a room, and comprise a base portion permanently fastened to the ceiling and having wire-clamps or binding screws connected with the main supply wires; and a removable cap or top having wire clamps or connectors for receiving the terminals of the supplied branch and affording connections from the same through fuse wires to the main conductors connected with the base portion.

The present invention relates especially to the devices by which the cap portion of the rosette is connected with the base portion, said devices affording a convenient detachable mechanical connector and also affording the electrical connection between the terminals of the branch wire in the cap portion of the rosette and the main feed wires in the base portion of the rosette. The said connecting device consists essentially of a spring catch or clamp that will be hereinafter described which can be manipulated easily without the use of screw drivers or other tools, thus greatly enhancing the utility of the rosette, as such devices are frequently used in places difficult of access making it very inconvenient to use a screw driver or other tool when the parts of the rosette have to be separated.

Figure 1 is a plan view of a rosette embodying this invention, Fig. 2 a side elevation thereof, partly in section to show one of the spring clamp connectors in side elevation, Fig. 3 a plan view of the base portion of the rosette with the cap removed, Fig. 4 a view of the inner face of the cap removed from its

base portion, Fig. 5 a vertical section of the rosette showing a modification in the clamp connector which will be hereinafter described, Fig. 6 a front elevation of one of the cap connecting devices, and Fig. 7 a sectional elevation thereof on line *x*, Fig. 6.

The rosette comprises a base portion *a* adapted to be connected by screws or other fastenings *a*², see Figs. 3 and 5, with the wall or ceiling of a building. The said base portion is provided with binding screws or wire-clamps *b*, *b*², to receive the main supply wires *w*, *w*², said wire clamps being formed upon metallic ears or projections *b*³ fastened to the base portion *a* as by screws *c* and being thus insulated from one another by the material of the base portion, which is made of insulating material. The said wire clamp projections *b*³ have connected with them fastening arms shown in Figs. 1, 2, and 3, as metallic arms or links *d*, *d*², which are bars of sheet metal having openings through which the clamp pieces *b*³ are passed so that said arms *d*, *d*², have a pivotal or hinging movement on said clamp pieces as indicated by the full and dotted lines Fig. 2. The said fastening arms thus make metallic contact with the wire clamp pieces and are in electrical connection with the main wires *w*, *w*², the said contact remaining bright and the electrical connection good owing to the frictional movement of said arms *d*, *d*², on the clamp pieces as will be hereinafter described.

The cap or removable top *a*³, of the rosette is provided with a central opening *a*⁴ through which the branch wires *w*³, *w*⁴, see Figs. 2 and 4, pass to the lamp or device to be supplied to the current from the wires *w*, *w*², the said wires *w*³, *w*⁴, being connected at the inside of the cap of the rosette with clamping pieces *e*, *e*², which are connected by fuse-wires *f*, *f*², with metallic locking arms *g*, *g*², fastened to the cap and projecting outward therefrom in position to be engaged by the locking arms *d*, *d*², on the base portion. The locking arms *g*, *g*², on the cap portion are inclined or beveled at their ends which project from the sides of the cap as best shown in Fig. 2, at *g*³ and are also slightly inclined just inside of the beveled portion as shown at *g*⁴ making a projection over which the locking arms *d*, *d*², of the

cap portion can be forced by a movement from the dotted to the full line position Fig. 2, thus securely locking the cap on the base portion when the said arms are in full line position and making electrical connection from the wire w through the clamp arms d and g to the fuse wire f and branch wire w^3 and a similar connection from the wire w^2 to the wire w^4 .

The arms g, g^2 , on the cap are made yielding to permit the arms d, d^2 , to be forced over the projecting part of the said arms g, g^2 , which are shown as connected with the cap by screws h having springs h^2 interposed between them and the cap, which springs permit the said arms to yield and at the same time retain them pressed in firm contact with the locking arms d, d^2 , on the base portion.

In order to remove the cap from the base portion so as to obtain access to the fuse wires and other connections at the interior of the said cap, it is merely necessary to force the locking arms d, d^2 , away from the cap moving them from the full to the dotted line position Fig. 2, when the cap will be released; and the cap is again locked in position on the base by applying it to the base and then moving the arms d, d^2 , from the dotted to the full line position Fig. 2.

It is not necessary that both of the locking arms d, d^2 , should be movable. One of said arms may be fixed to the base portion, being for example an integral projection from the corresponding main wire clamp-piece b^3 as shown at d^{20} , Fig. 5, in which construction the cap is released by throwing off the movable clamp arm d^2 , when by tilting the cap its opposite locking arm g can be withdrawn from the locking arm d^{20} , on the base portion; and the cap can be applied again by the reverse operation first engaging the arm g with the arm d^{20} , while the cap is in inclined position, then setting the cap down on the base portion, and engaging the arm g^2 by the movable arm d^2 on the base.

The cap is shown as provided with recesses

d^3 see Fig. 4, which engage with the projections containing the fastening a^2 of the base portion, to insure that the cap is applied in proper position with relation to the base portion.

We claim—

1. The combination of the base provided, with wire clamps, and fastening arms in metallic contact therewith, having transverse openings or recesses, one or both of said arms having a pivotal connection with the corresponding wire clamp; with the cap having radial projecting locking arms adapted to enter the openings in the fastening arms of the base portion to thereby secure the said cap to the base portion and make electrical connection between said fastening portions on the base and cap, substantially as described.

2. The combination of a base portion provided with a wire clamp as b with the fastening arm or link d provided with an opening through which a portion of the wire clamp b passes on which said link is pivotally movable, and the cap portion provided with a fastening arm adapted to be engaged with and disengaged from the said link by the pivotal movement thereof, substantially as described.

3. The combination with the base portion provided with a wire clamp, and fastening arm or link as d^2 , pivotally connected therewith, of a cap portion provided with a locking arm having a beveled or inclined end and projection to receive said fastening arm, and a spring to accommodate the relative yielding movement of the locking and fastening arms in the engagement and disengagement thereof, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES H. CROCKETT.
CHANCELLOR C. ALLEN.

Witnesses:

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CHARLES E. LOWD.