

(No Model.)

C. B. STORY.
CUT-OUT.

No. 419,733.

Patented Jan. 21, 1890.

Fig. 1.

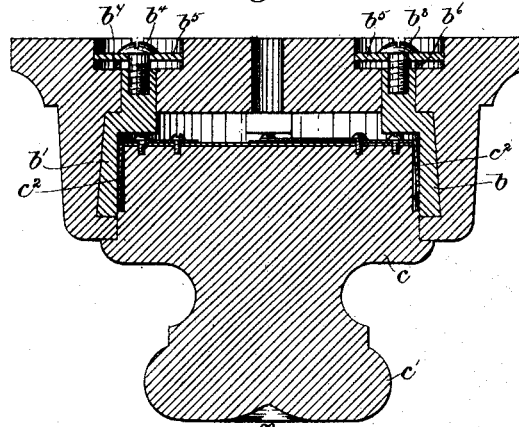


Fig. 2.

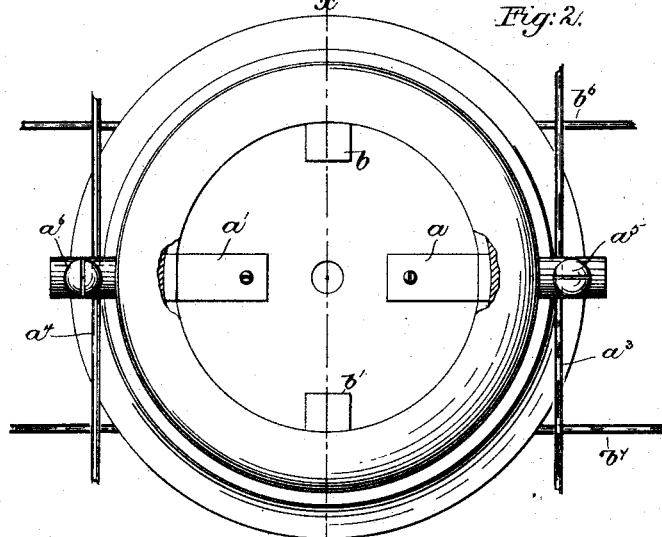
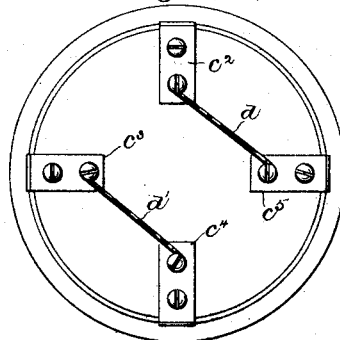


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES B. STORY, OF BRUNSWICK, MAINE.

CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 419,733, dated January 21, 1890.

Application filed April 9, 1889. Serial No. 306,578. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. STORY, of Brunswick, county of Cumberland, State of Maine, have invented an Improvement in Electric Cut-Outs, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a novel cut-out especially adapted to be employed on incandescent electric-light and power circuits.

In accordance with my invention a preferably hollow base provided with two or more sets of contact-arms, each set comprising two contact-arms to which the circuit-wires are connected, has co-operating with it a plug adapted to be pushed between the said contact-arms, the said plug being provided with two sets of contact-arms which make a sliding contact with the contact-arms on the base, the contact-arms on the said plug being joined by a fusible connection—such as a wire or strip of metal—having a low melting-point.

My invention therefore consists, essentially, in the combination, with a hollow base provided on its inner side with contact-arms having stems extended through the said base and to which the line-wires are connected, of a plug provided with contact-arms on its periphery to co-operate with the contact-arms on the base and form a sliding contact therewith, and a fusible connection between the said contact-arms, substantially as described.

Figure 1 is a longitudinal section of a cut-out embodying my invention on line *xx*, Fig. 2; Fig. 2, a top or plan view of the base with the plug removed, and Fig. 3 an under side view of the plug removed from the base.

The hollow base *A*, preferably made of wood or other insulating material, is provided on its inner side with two sets of contact-arms, comprising four contact-arms *a a' b b'*, preferably of metal. The contact-arms *b b'* are herein shown as provided with stems *b²*, which are extended through the base *A*, and which are secured to the said base by screws *b³ b⁴* and a metallic washer *b⁵*, between which and the said base the branches or line-wires *b⁶ b⁴* of one circuit, preferably the main circuit, are firmly clamped. The contact-arms *a a'* are also provided, as herein shown, with stems *a³*, which are extended through walls or sides of the hollow base, and to which the branches

or line-wires *a³ a⁴* of a branch circuit in which are located the incandescent lamps (not shown) are secured, as by screws *a⁵ a⁶*.

The hollow base *A* receives within it a plug *c*, preferably of wood or other non-conducting material, provided, as shown, with a handle or knob *c'*. The plug *c* is provided on its periphery with contact-arms *c² c³ c⁴ c⁵*, which co-operate with the contact-arms on the base *A*. Each contact-arm *c² c³ c⁴ c⁵* is preferably made, as herein shown, in the form of a right angle, one portion of which is firmly secured to the base, as by screws *c⁶*, and the other portion of which is extended up the side of the plug, and provided at its end with a flange or projection *c⁷*, which bears against the side of the plug and imparts spring properties to the portion of the contact-arm extended up the side of the said plug. The contact-arm *c²* of one set is connected by fusible material, preferably a wire *d*, to one contact-arm *c⁵* of the second set, and the contact-arm *c⁴* is connected by a fuse-wire *d'* to the contact-arm *c³*.

In operation the plug *c* is pushed or inserted into the hollow base between the contact-arms, and thereby connection made between the contact-arms, which, as shown in Fig. 1, is as follows, viz: the contact-arms *c⁵ c³* are in contact with the arms *b b'*, and the arms *c⁴ c²* with the arms *a' a*. The circuit through the incandescent lamp in the branch wires *a³ a⁴*, and not herein shown, may be traced as follows, viz: from the positive wire *b⁶* through the contact-arms *b c⁶*, fuse-wire *d*, contact-arms *c² a*, line *a³*, through the lamp, line *a⁴*, contact-arms *a' c⁴*, fuse-wire *d'*, and contact-arms *c³ b'*, to negative line-wire *b⁷*.

The fuse-wires *d d'* protect the incandescent lamps from being burned out by an abnormal current. The plug may be readily removed from the hollow base and the fuse-wires, when burned out, quickly replaced. The plug is held in place in the hollow base, as herein shown, by the friction between the contact-arms on the said plug and base; but it may be held in place, as by a pin or catch.

I prefer to secure the fuse-wires to the contact-arms on the plug; but it is evident they may be secured to the contact-arms on the base. So, also, I do not desire to limit my invention to a hollow base, as it is evident the contact-arms *b b' a a'* may be secured to a flat base.

I claim—

1. In a cut-out, the combination, with a hollow base provided on its inner side with contact-arms having stems extended through said base, and to which the line-wires are connected, of a plug provided with contact-arms on its periphery to co-operate with the contact-arms on the base and form a sliding contact therewith, and a fusible connection between the contact-arms, substantially as described.
2. In a cut-out, the combination, with a hollow base provided on its inner side with two sets of contact-arms having stems extended through said base and to which the line-wires are connected, of a plug provided on its periphery with two sets of contact-arms to form with the contact-arms on the base a sliding contact and a fusible connection between said contact-arms, substantially as described.

3. In a cut-out, the combination, with a hollow base provided with two sets of contact-arms, to which two circuit-wires are connected, one circuit being connected through the bottom of the base and the other through the sides of the base, of a plug provided on its periphery with two sets of contact-arms to co-operate with the contact-arms on the base and form therewith a sliding contact and a fusible connection between the contact-arms on the plug, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES B. STORY.

Witnesses:

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