

C. F. LEWIS.
ELECTRIC CIRCUIT CLOSER.
APPLICATION FILED MAY 31, 1906.

996,990.

Patented July 4, 1911.

Fig. 1

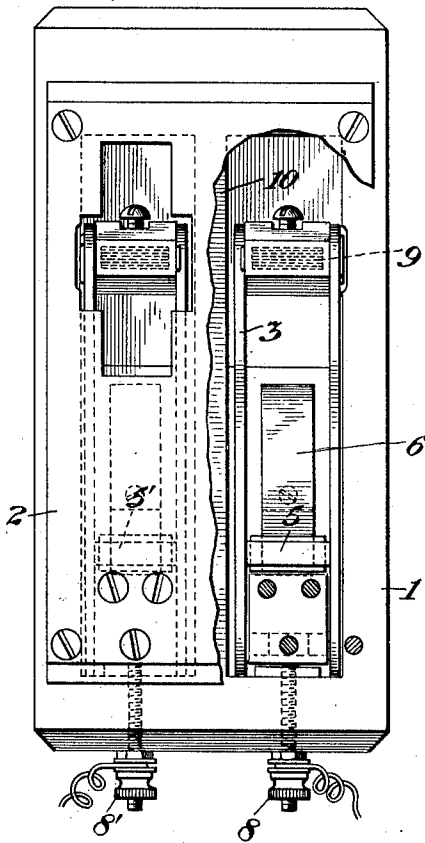
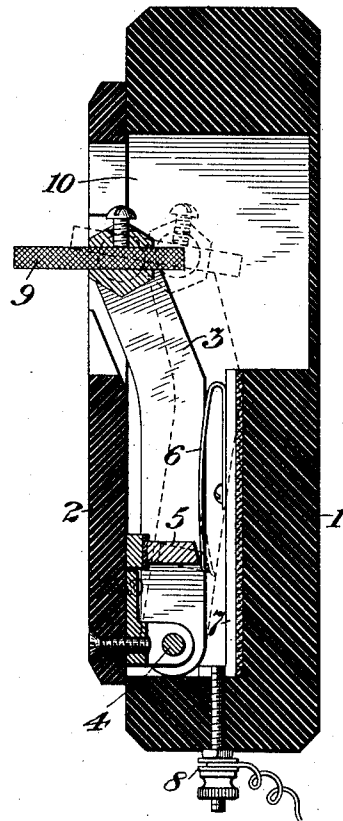


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES F. LEWIS, OF NEW YORK, N. Y.

ELECTRIC-CIRCUIT CLOSER.

996,990.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed May 31, 1906. Serial No. 319,527.

To all whom it may concern:

Be it known that I, CHARLES F. LEWIS, citizen of the United States, and resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Electric-Circuit Closers, of which the following is a specification.

This invention relates to that class of electric devices which are adapted to close electric circuits automatically. To accomplish this in my invention I prefer to employ two carrier arms which may be located in separate compartments of a suitable housing or casing. Said carrier arms may be constructed of conducting material and pivoted at one end to the casing. The said carriers are preferably provided with adjustable contact brushes which may be positioned at the opposite end of the pivoted members. Suitable springs may be positioned in said housing or casing adapted to engage said carrier in such a manner as to form an elastic resistance to the inward motion thereof. Said springs may be in electrical connection with suitable binding posts thereby forming with the carrier a path for the current between said posts and said adjustable contact brushes.

The details of construction of one embodiment of my invention are shown in the accompanying drawings.

Like parts are denoted by like figures of reference in all views.

Figure 1 is a front elevation with a portion broken away showing the interior construction. Fig. 2 is a side elevation in section taken on the center line of one of the carrier arms.

A casing or housing, preferably of suitable insulating material, is represented by 1 to which may be attached a cover or plate 2 of like material. Arms or levers 3 of suitable conducting material may be disposed within said casing or housing 1 and may be pivotally attached at 4 to the casing 1. Said arms or levers 3 may be provided with a cross piece or brace 5 adapted to impinge upon a suitable spring 6. Said spring 6 may be attached to a suitable piece of conducting material 7, which forms an electrical connection with suitable binding posts 8. Said arms or levers 3 may be provided with contact brushes 9 of suitable conducting ma-

terial, such as a wire gauze, adjustably attached thereto. Two sets of these levers 3, each forming a carrier, may be provided. Each having its separate connection through the cross braces 5 and 5' to binding posts 8 and 8' in the manner as just described. Said carriers may be positioned in compartments separated by a suitable partition 10 in the casing 1.

In the operation of the foregoing embodiment of my invention the contact brushes 9 carried by the carrier members are adapted to come simultaneously in contact with electric conductors and will be held in contact therewith by the action of the springs against the swinging carriers. The extreme inward position of the carrier is indicated by the dotted lines in Fig. 2.

One use for a device of this nature is in connection with an elevator car in the shaft for any desired purpose, such as the operation of a locking device, or a signal, etc. In such an application a device such as described may be carried by the elevator car and contact strips placed at the desired points in the shaft in such position that as the car passes such points the contact brushes 9 will engage the contact strips and close the circuit in the manner just described.

One advantage attained by a construction such as described is the absence of noise when the contact is made on account of the yielding nature of the swinging carrier and contact brush. This is especially evident when the car passes the contact strip with great speed. On account of the position of the contact brush on the carrier considerable motion thereof is permitted with only a relatively small movement of the spring which holds the same against the strips. This permits the use of a very stiff spring which insures a positive action and contact and at the same time allows a free movement of the brush.

A further feature of the device is that it is so inclosed that the operating parts are protected and also each carrier is inclosed in a separate compartment thus providing against a short circuit, etc.

As various modifications and adaptations of my invention to other uses may be made without departing from the scope thereof I intend that all matter contained in the fore-

going description and drawings be interpreted as illustrative and not in a limiting sense.

What I claim is:—

5 1. In a circuit closing device, in combination, a casing having a plurality of separate compartments, a plurality of carriers each positioned in one of said compartments, a plurality of contact members each positioned
10 on one of said carriers and slidably adjustable transversely with relation thereto, and a plurality of spring members each positioned in one of said compartments and arranged to operate upon and in conjunction
15 with one of said carriers and contact members to hold the same in its operative position, each of said carriers and contact members forming with its spring member a separate conducting path for the current and
20 said casing forming therewith an integral removable device.

2. In a circuit closing device, in combination, a casing having a compartment therein, a cover for said casing having an opening therein registering with said compartment, 25 a carrier positioned in said compartment in said casing, a contact member slidably and adjustably mounted on said carrier so as to project through the opening in said cover, and resilient means cooperating with said 30 carrier and contact member to hold the same in an operative position, said casing inclosing said members and forming therewith an integral removable device.

Signed at the city of New York in the 35 county of New York and State of New York this 28th day of May A. D. 1906.

CHARLES F. LEWIS.

Witnesses:

H. W. FORSYTH,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."