T. E. MURRAY.

CONNECTION DEVICE FOR CIRCUIT CONDUCTORS.

APPLICATION FILED MAR. 9, 1912.

1,036,508.

Patented Aug. 20, 1912.

2 SHEETS—SHEET 1.

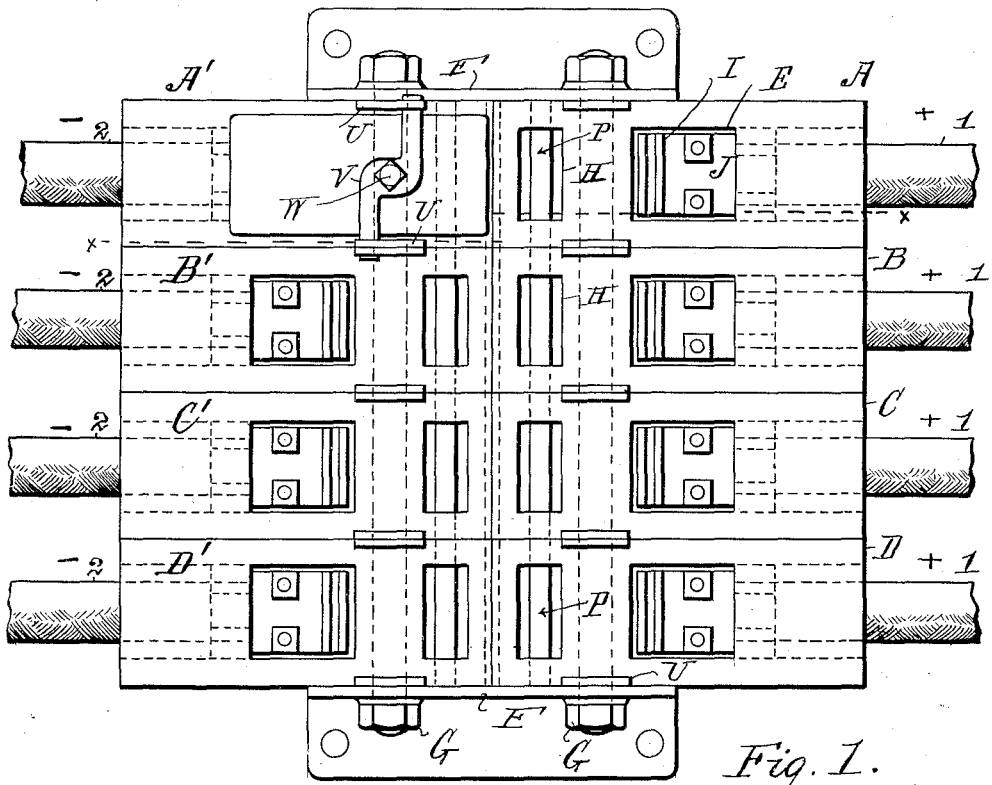

Fig. 1.

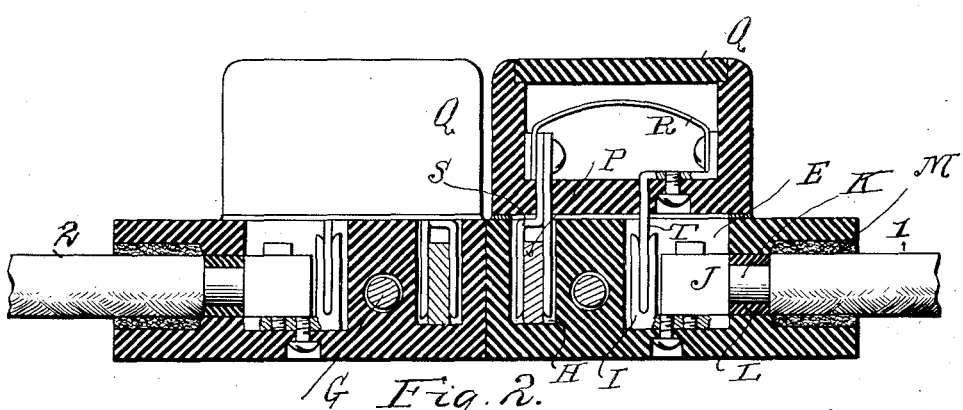

Fig. 2.

Witnesses:
May T. McHarg
Gertrude V. Porter.

Inventor
Thomas E. Murray
By his Attorney
Paul Benjamin

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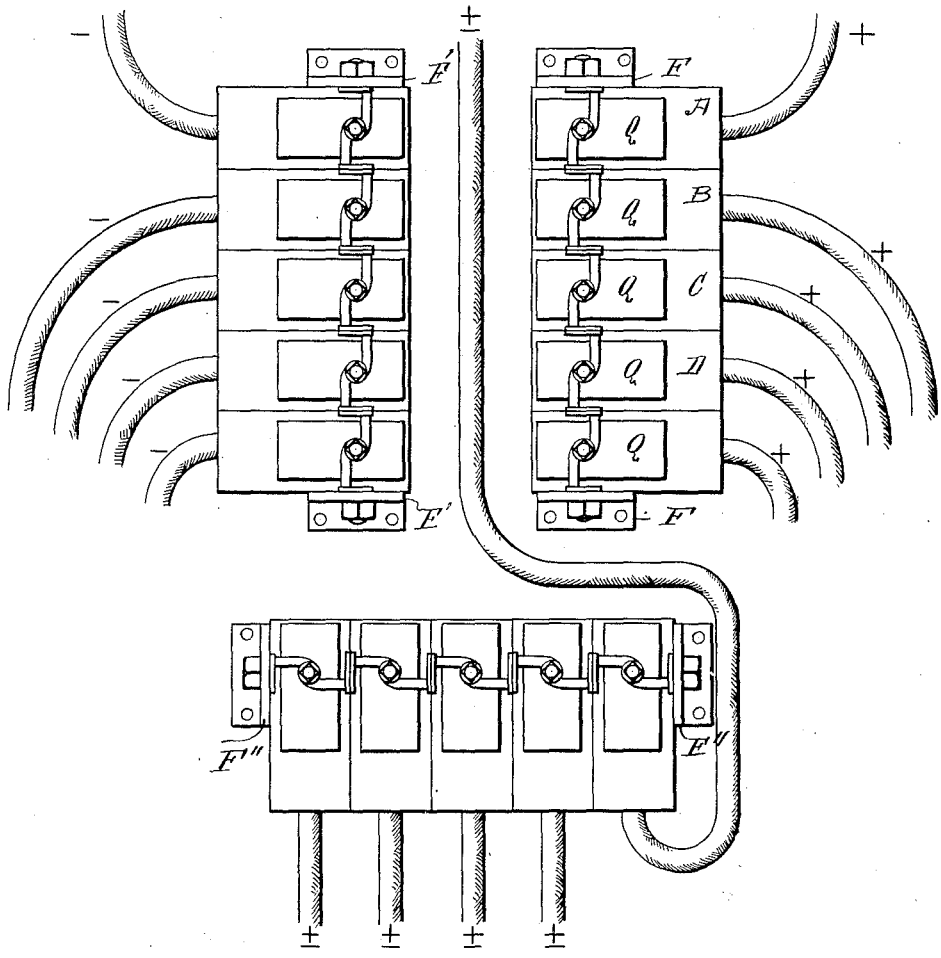

Fig. 3.

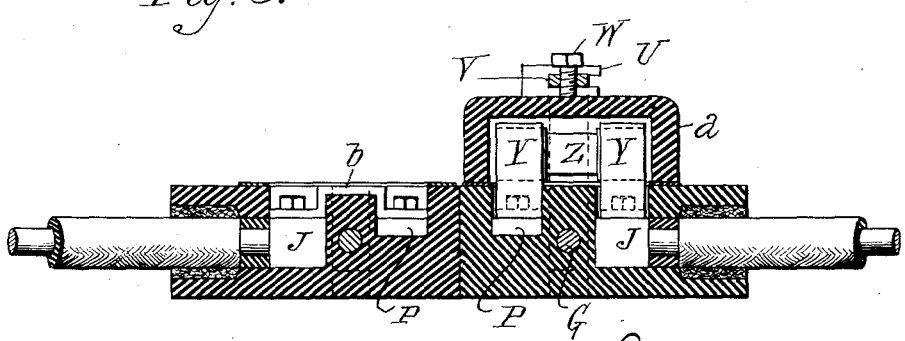

Fig. 4.

Witnesses:
May T. McGarry
Gertrude F. Porter

Thomas E. Murray Inventor
By his Attorney Paul Benjamin

UNITED STATES PATENT OFFICE.

THOMAS E. MURRAY, OF NEW YORK, N. Y.

CONNECTION DEVICE FOR CIRCUIT-CONDUCTORS.

1,036,508. Specification of Letters Patent. Patented Aug. 20, 1912.

Application filed March 9, 1912. Serial No. 682,646.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Connection Devices for Circuit-Conductors, of which the following is a specification.

The invention is a connection device for circuit conductors, and is designed to obviate the need of specially designed apparatus to meet particular needs, and to substitute therefor a system of interchangeable units, by combining which, in proper relation, any desired arrangement of circuits may be obtained. I provide a plurality of interchangeable insulating blocks placed in juxtaposition and arranged in as many groups as circumstances may require. Across the members of each group extends a conductor. On each member is a circuit terminal. The circuit terminals of the members of each group may be connected by movable means to the conductor associated with that group. The movable connection devices are all preferably interchangeable. The user, therefore, is enabled to build up from interchangeable units a connection device suited to any conditions of installment. He may vary the number of members in each group, or the number of groups, or the position of the groups with respect to one another, or the circuit connections so as to establish main and branch circuits or to suit either a two or three-wire distribution system.

In the accompanying drawings—Figure 1 is a plan view showing two groups of interchangeable insulating blocks secured together and upon a common support, the covers being removed from all of said blocks, except one. Fig. 2 is a section on the line x, x of Fig. 1, the cover box containing the connection piece or fuse being here shown in position, and the cover securing devices being removed. Fig. 3 is a plan view showing three groups of interchangeable insulating blocks, the said groups being separated from one another and connected in a three-wire system. Fig. 4 is a longitudinal section of two insulating blocks exhibiting a modified construction of the transverse conductors and connection pieces.

Similar numbers and letters of reference indicate like parts.

A plurality of interchangeable blocks, as A, B, C, D, Fig. 1, of insulating material, are placed in juxtaposition between movable brackets F, secured to a panel-board or other common support, and are held in place by bolts G passing through them and through the brackets. Any desired number of blocks may enter into the group thus formed. In each block is a socket E, in which is secured a clip I. Connected to the clip is a metal block J, to which is secured by any suitable means, the denuded end K of a lead sheathed circuit conductor, as 1. Said end passes through an elastic bushing L in the block. The exterior joint between the conductor and block is closed with a body M of consolidated lead floss. In each block is a second socket H. When the blocks are placed in juxtaposition, a metal conducting bar P extends through all of the sockets H.

In order to connect the circuit terminals, formed by the clips I of each block, with the conductor P, I provide any suitable switch plug entering the sockets H and E, and cooperating with said conductor and clips. A preferable arrangement for such connection is shown in Fig. 2, in which Q is a box of insulating material inclosing a connection piece R—which may be a fuse strip—having its ends respectively connected to a contact clip S, and a plate T, which depend from the bottom of said box. When the box Q is in place, it covers the sockets H, E. The clip S then engages conducting bar P, and the plate T is engaged by clip I. The boxes Q may be secured in place by standards U disposed between the blocks, and between the blocks and brackets G, each standard having a notch in its upper end receiving the ends of an arm V, through which passes a pivot screw W, bearing on the top of the box.

In the modified arrangement shown in Fig. 4, the conducting bar P is disposed flatwise in the sockets instead of edgewise as in Fig. 2, and spring clips Y, disposed respectively upon said bar and upon the metal block J, receive the terminals of a cartridge fuse Z. The cover a is cup-shaped and secured in the manner already described. In the arrangement shown on the left of Fig. 4, a simple connecting strip b is secured to block J and bar P.

In Fig. 1, two groups of four blocks each (A, B, C, D and A′, B′, C′, D′) are shown placed together and secured by a single pair of brackets F. In Fig. 3, three groups

of five blocks each are shown, the several groups being separated and each secured in place by a pair of brackets F F, F′ F′. F″ F″.

All of the parts of my device may be, and preferably are, made interchangeable, and this permits of circuit connections being varied over a wide range. Thus, in Fig. 1, the circuit conductors 1 may all be plus and the circuit conductors 2 minus. Then any pair of plus and minus conductors may be feeder leads, in which case the other pairs will be in branch therefrom. In Fig. 3. the plus conductors of a three-wire system are connected to one group, the minus conductors to a second group, and the neutral conductors to a third group of blocks, in which event any set of three conductors (plus, minus and neutral) may be the feeders, and the other sets branches.

I claim:

1. A group of interchangeable insulating blocks, each having two sockets, means for removably securing said blocks in juxtaposition, a circuit terminal in one socket of each block, a conductor extending across said blocks and through the remaining sockets, and movable means entering said sockets for connecting each of said circuit terminals to said conductor.

2. A group of interchangeable insulating blocks, each having two sockets, means for removably securing said blocks in juxtaposition, a circuit terminal in one socket of each block, a conductor extending across said blocks and through the remaining sockets, a cover for said sockets, and, supported on said cover, means entering said sockets for connecting each of said circuit terminals to said conductor.

3. A group of interchangeable insulating blocks, each having two sockets, means for removably securing said blocks in juxtaposition, a circuit terminal in one socket of each block, a conductor extending across said blocks and through the remaining sockets, a casing on each block, forming a cover for the sockets thereof, a connection within said casing, and coöperating contacts between the terminals of said connection, said conductor and the circuit terminal on said block.

4. A group of interchangeable insulating blocks, each having two sockets, means for removably securing said blocks in juxtaposition, a circuit terminal in one socket of each block, a conductor extending across said blocks and through the remaining sockets, a box of insulating material on each block extending over the sockets thereof, a connection inclosed within said box, and terminal contacts extending through the bottom of said box and coöperating with said conductor and the circuit terminal on said block.

5. A plurality of separated groups of interchangeable insulating blocks, means for removably securing the members of each group in juxtaposition, a circuit terminal on each block, a plurality of line conductors, each conductor extending across one of said groups, and movable means for connecting each of the circuit terminals of each group to the conductor associated with said group.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS E. MURRAY.

Witnesses:
GERTRUDE T. PORTER,
MAY T. MCGARRY.