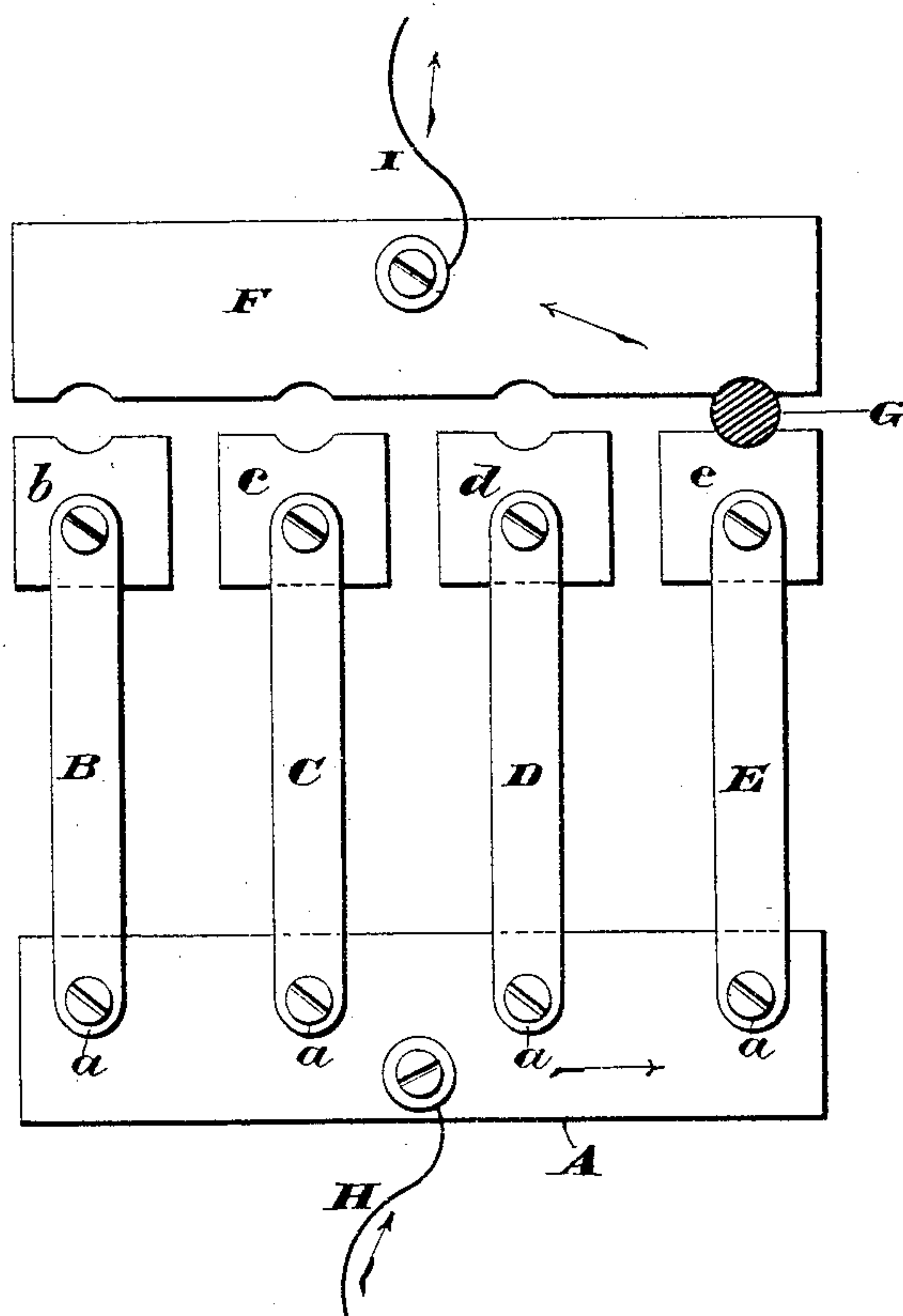


(No Model.)

C. F. BRUSH.
FUSE BLOCK.

No. 427,548.

Patented May 13, 1890.



Witnesses
E. Nottingham
R. S. Ferguson

Inventor
Charles F. Brush
By his Attorney
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UNITED STATES PATENT OFFICE.

CHARLES F. BRUSH, OF CLEVELAND, OHIO.

FUSE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 427,548, dated May 13, 1890.

Application filed November 21, 1889. Serial No. 331,121. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. BRUSH, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Safety-Fuses for Electric Systems of Distribution; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in safety-fuses for electric systems of distribution, the improvement being specially applicable to electric-railway systems.

Heretofore it has been customary to interpose a safety-fuse consisting of a readily-fusible strip of metal in the circuit leading from the trolley of a multiple-arc electric-railway system to the motor on the car, so that the circuit will be broken and the current to the motor interrupted or cut off by the fusion of the safety-strip should the current from any cause become sufficiently great in quantity to endanger the motor by overheating or burning out its coils. When the single fuse in the circuit burns out, it is necessary to insert a new one before the car can safely proceed on its journey, and much time is consumed and trouble caused in replacing the burned-out fuse by a new one.

The object of my invention is to obviate the trouble and loss of time due to the employment of a single safety-fuse, and to provide a number of safety-fuses so arranged that while only one of them will be included in the circuit of the motor a fresh fuse may be instantly switched into the circuit in case one should be burned out.

With this object in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the accompanying drawing, which illustrates one embodiment of my invention, A represents a block or plate of metal or other good electric conductor, to which one end of a series of fuses B C D E, &c., are fastened by screws *a*, or in any other suitable manner.

The opposite ends of the several fuses or safety-strips are connected to the several metal blocks *b c d e*, &c., which are insulated from each other.

F is a block or plate, of metal or other good conductor, located in close proximity to the insulated blocks or contacts *b c d e* and adapted to be electrically connected with any one of said blocks by means of a metal plug G. The block A may be electrically connected with the trolley and the plate F with the motor by conductors H and I, or the connections may be reversed. On the passage of a current from the trolley to the motor the current will flow through the fuse E, and should this fuse or strip be burned out by the current fuse D may be quickly switched into the circuit by means of the plug G. It is evident that a switch-lever or other device might be used in lieu of the plug for electrically connecting either one of the insulated blocks with the block or plate F. Again, the parts may be arranged as shown or in the form of a cylinder, or in any other desired manner; hence I do not restrict myself to the particular construction or arrangement of parts shown and described; but,

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

The combination, with an electric feed-circuit, of a fuse included therein, said fuse consisting of two plates of conducting material, a series of metallic blocks located between and in proximity to one of said plates, a fusible strip connecting each block with the other plate, and a plug for electrically connecting the blocks with the plate in proximity thereto one at a time, whereby when one fusible strip shall have been blown another may be quickly put into circuit, substantially as set forth.

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

CHARLES F. BRUSH.

Witnesses:

J. FOLLET,

SIDNEY H. SHORT.