No. 849,159. PATENTED APR. 2, 1907.

F. R. PARKER.

FUSE CLIP.

APPLICATION FILED MAR. 14, 1906.

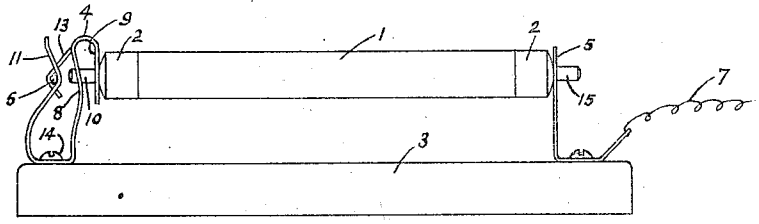


Fig. 1.

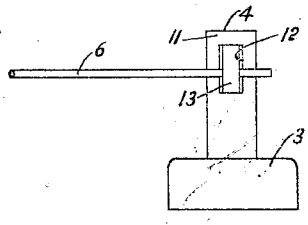


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK R. PARKER, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK B. COOK, OF CHICAGO, ILLINOIS.

FUSE-CLIP.

No. 849,158. Specification of Letters Patent. Patented April 2, 1907.

Application filed March 14, 1906. Serial No. 306,037.

To all whom it may concern:

Be it known that I, FREDERICK R. PARKER, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Fuse-Clip, of which the following is a specification, reference being had to the accompanying drawings, illustrating same.

My invention relates to spring means for clamping electrical fuses in circuit, and more particularly to spring means for automatically clamping tubular or inclosed fuses in place and a circuit-conductor thereto.

The principal objects of my invention are to provide a spring-clip which automatically holds the terminal of a fuse in place and at the same time automatically holds a circuit-conductor which is connected in circuit with the fuse, to provide compactness in such a spring clamping device, and to provide simplicity of construction and cheapness of manufacture in such a spring-clip.

Heretofore it has been customary to provide a spring-clip to hold the terminal of the fuse in place and an entirely separate clip or screw connection to hold a circuit-wire in circuit with the fuse. This necessitates two entirely separate parts, which greatly increases the cost of manufacture and which also generally produces an extra contact in the circuit between the conductor connection and the fuse-clip.

In the device of my present invention I adapt one single piece of spring metal so as to clamp both the fuse-terminal and the circuit-wire in place, thereby connecting one to the other. It will be readily seen that this construction is very simple and economical to manufacture and that it requires much less space for its mounting than where separate connectors are used.

Referring to the accompanying drawings, illustrating the preferred form of my invention, Figure 1 shows a side view of a fuse mounted on an insulating-base provided with the spring-clip of my invention. Fig. 2 is a left end view of Fig. 1, showing the spring-clip of my invention with a circuit-wire connected thereto.

Like characters refer to like parts in the several figures.

The tubular or inclosed fuse 1, provided with end connecting-caps 2 2, is preferably mounted on an insulating-base 3 by terminal springs 4 and 5. Conductors 6 and 7 are preferably connected to the terminal clips 4 and 5, respectively, to connect the fuse in the circuit which it is to protect. The terminal spring 4 is preferably made of a single leaf-spring, formed, preferably, as shown, with holes through the portions 8 9 to accommodate a spindle 10 of a fuse-terminal 2, which is securely clamped in place thereby when the opposite end of fuse 1 is pressed in place in the terminal spring 5, the terminal spring 4 exerting a torsion on the spindle 10, and thereby securely clamping same in place. The terminal spring 4 is also provided with a turned-up portion 11, cut away, as shown at 12 in Fig. 2, and a tongue portion 13, preferably formed, as shown, so as to partially extend through the portion 11.

When the circuit-conductor 6 is connected in place, the portion 11 is pressed toward the portion 8, and the conductor 6 is then inserted between the portion 11 and the tongue portion 13. When the portion 11 is released, it tends to spring away from the portion 8, and thereby with the tongue portion 13 securely clamps the conductor 6 in place between 11 and 13, as shown in Fig. 1. The spring-terminal 4 is preferably mounted on the base 3 by a screw 14. The terminal 5 may be any suitable spring-clip adapted to grip the spindle 15 of the fuse.

When the fuse 1 is put in place in the circuit, the spindle 10 is first inserted through the holes in the portions 8 and 9 of the spring-clip 4, the other end of fuse 1 being held in a raised position. Then the said other end of fuse 1 is depressed into a slot in terminal spring 5, which causes terminal spring 4 to put the spindle 10 of fuse 1 under a torsional stress to hold same in the circuit. The terminal spring 5 securely holds spindle 15 in place against the torsion of terminal spring 4, which slightly tends to throw it out.

It will readily be seen that the spring-clip of my invention is very compact and that the parts are very readily accessible. The compactness of this clip 4 enables me to make a much shorter mounting-base 3 for the fuse than where separate connectors are used for the fuse and for the conductor 6. The free end of portion 11 and the portion 9 form good thumb-pieces to be pressed toward each other in inserting the conductor 6 in place in the clip.

I do not wish to limit this invention to the exact details of construction as herein shown, as many modifications may be made therein without departing from the scope of the invention.

What I claim as my invention is—

1. In apparatus of the character described, a spring member having a tongue portion near one end thereof and a hole near the other end thereof, clamping means near one end of the spring member and formed out of same, and a fuse having a terminal connected with the said clamping means whereby it is securely clamped in place, the said tongue portion being formed to be inserted through the said hole and coöperating therewith to grip a circuit-conductor to connect same in circuit with the fuse.

2. In apparatus of the character described, a spring member having two holes and a tongue portion near one end and a hole near the other end, a fuse having a terminal inserted through the said two holes and depressed whereby the fuse-terminal is placed under a leverage, and the tongue portion being formed to be inserted through the third-mentioned hole and coöperating therewith to grip a circuit-conductor to connect same in circuit with the fuse.

As inventor of the foregoing I hereunto subscribe my name, in the presence of two subscribing witnesses, this 12th day of March, 1906.

FREDERICK R. PARKER.

Witnesses:
JNO. F. TOMPKINS,
F. W. PARDEE.