R. C. COLE.

FUSE BLOCK.

APPLICATION FILED OCT. 27, 1916.

1,227,753. Patented May 29, 1917.

Fig. 1

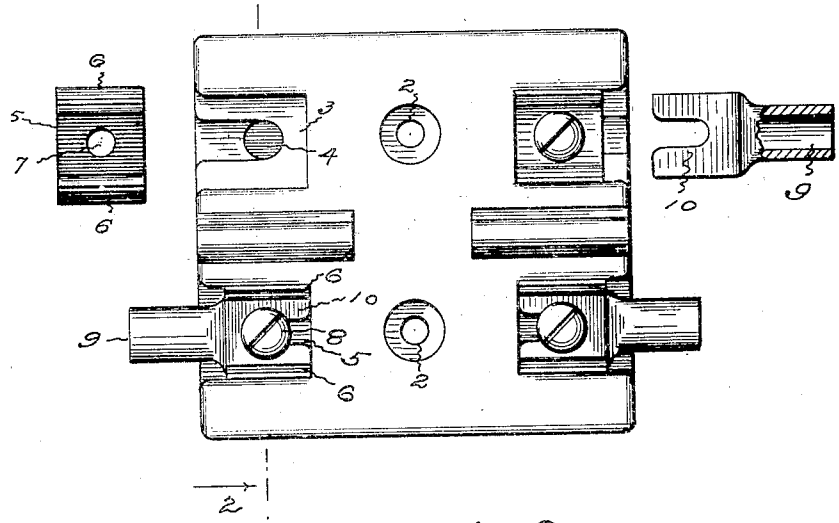
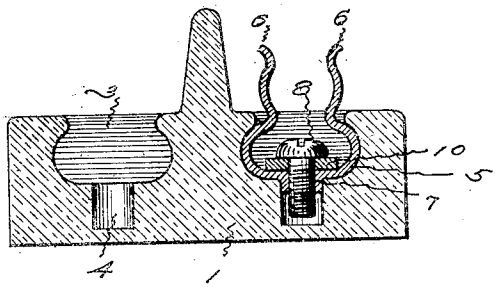


Fig. 2



INVENTOR.

Robert C. Cole

BY

Harry P. Williams

ATTORNEY.

UNITED STATES PATENT OFFICE.

ROBERT C. COLE, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE JOHNS-PRATT COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

FUSE-BLOCK.

1,227,753. Specification of Letters Patent. Patented May 29, 1917.

Application filed October 27, 1916. Serial No. 127,991.

To all whom it may concern:

Be it known that I, ROBERT C. COLE, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Fuse-Blocks, of which the following is a specification.

This invention relates to the construction of electrical cut-out blocks of the class which have spring conducting clips for receiving the terminals of inclosed fuses, loosely retained in pockets on top of the blocks.

The object of the invention is to produce a fuse cut-out block of this class having maximum electrical efficiency, which is very compact and has few parts that can be assembled very quickly. This object is attained by so designing the base, fuse clips and wire lugs that each fuse clip can be inserted into a holding pocket and loosely retained therein by a single screw that is utilized to clamp the lug to the clip.

The invention is equally applicable to the construction of single and multiple pole main and branch blocks, the only change being in the size of the base and the number of fuse clips applied thereto to meet the conditions, and the fuse clips may be designed for receiving fuse terminals of the ferrule type or of the knife-blade type, the only difference being in the shape of the spring fingers. The invention is illustrated in the drawings and described herein as embodied in a double pole block having ferrule type fuse clips. Figure 1 shows a plan of a double pole block with the clips and lugs on one side assembled in place as when in use. On the other side of the block at one end the spring clip is removed from its pocket in the insulating base and the lug is omitted, and at the other end the spring clip is in place in its pocket in the base, but the lug is shown as removed. Fig. 2 shows a section taken on the plane indicated by the dotted line 2—2 on Fig. 1.

The cut-out base 1 is made any suitable size of insulating material, preferably porcelain, with holes 2 for the passage of the screws which are used to secure it in place. In the top of the insulating base are pockets 3 which extend from the ends longitudinally inward a short distance toward the middle. The side walls of the pockets are undercut and are shaped to receive and hold from upward movement the lower portions of the fuse clips which are slipped into the pockets from the ends. The inner end walls of the pockets keep the clips from moving toward each other. In the bottoms of the pockets are sockets 4.

The fuse clips have their lower parts 5 shaped to fit into the pockets and their spring fingers 6 shaped to receive the particular type of terminals of the fuses which are to be used with the block. In the bottom of each fuse clip is a threaded perforation 7 adapted to receive a screw 8. When a fuse clip is slid into its pocket and the screw it carries is turned inward a little the inner end of the screw extends down into the socket in the bottom of the pocket and prevents the fuse clip from moving out of the open end of the pocket, the walls of the pocket preventing any inward and any upward movement of the clip. The device is assembled by sliding the fuse clips into the pockets and turning the screws in a slight distance. It is not necessary to turn the screws way in to prevent the clips from sliding out of the pockets in the base.

The wire lugs are desirably formed of short sections of copper tubes with portions flattened and slotted. This leaves a round socket 9 for the insertion and attachment of the end of the line wire and a flat fork 10 which may be slid under the head of the screw that retains the fuse clip in place. The fork is thrust under the head of the screw and then the screw is turned down so as to bind the forked end of the lug which is attached to the line wire tightly to the bottom of the fuse clip between the spring fingers. When the screw is loosened the fork is free to be drawn without turning the screw sufficiently to allow the clip to slide out of the pocket. With this construction the clips are securely held in place, but they are more or less loosely retained so that they will readily aline themselves when the fuses are inserted. A single screw binds each lug and clip and retains the clip in the pocket. The spring clips are easily made of a minimum amount of metal. The lugs are cheaply formed of a small amount of metal and these two parts can be quickly put together or separated when desired by anyone. When the screws are tightened the lugs are closely bound to the fuse clips and such contact is made between the clips and lugs that no appreciable resistance is offered to the

flow of current and the liability of heating is thus eliminated, without rigidly fastening the clips.

The invention claimed is;

1. A fuse block having an insulating base with undercut pockets that open toward the ends of the base in its upper face and sockets in the bottom of the pockets, fuse clips with their lower portions shaped to loosely fit the walls of the pockets and having threaded perforations in their bottoms, and screws turning in said threaded perforations into the sockets in the bottom of the pockets when the clips are in operative position so as to retain the clips from movement endwise out of the pockets.

2. A fuse block having an insulating base with undercut pockets that open toward the ends of the base in its upper face and sockets in the bottom of the pockets, fuse clips with their lower portions shaped to loosely fit the walls of the pockets and having threaded perforations in their bottoms, screws turning in said threaded perforations into the sockets in the bottom of the pockets, and lugs with wire receiving sockets and forked ends that are adapted to be thrust beneath the heads of the screws and to be bound thereby closely to the bottom of the clips by the screws which retain the clips in the pockets.

ROBERT C. COLE.