

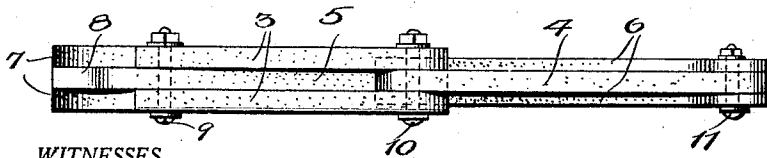
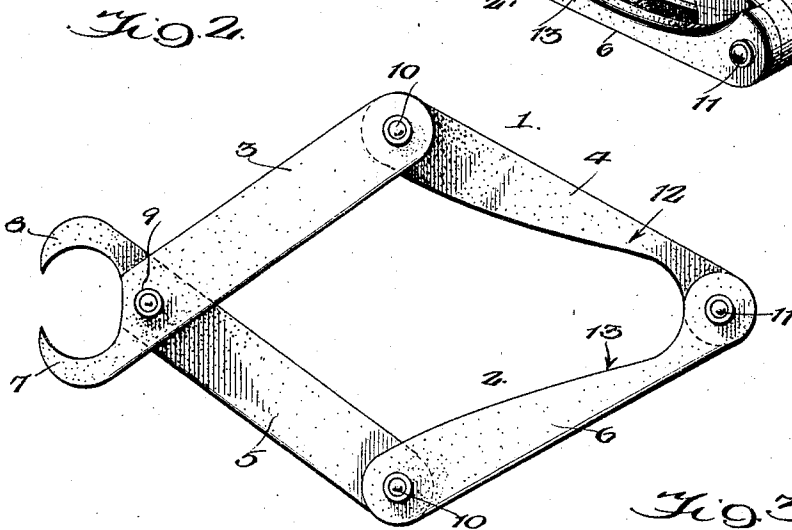
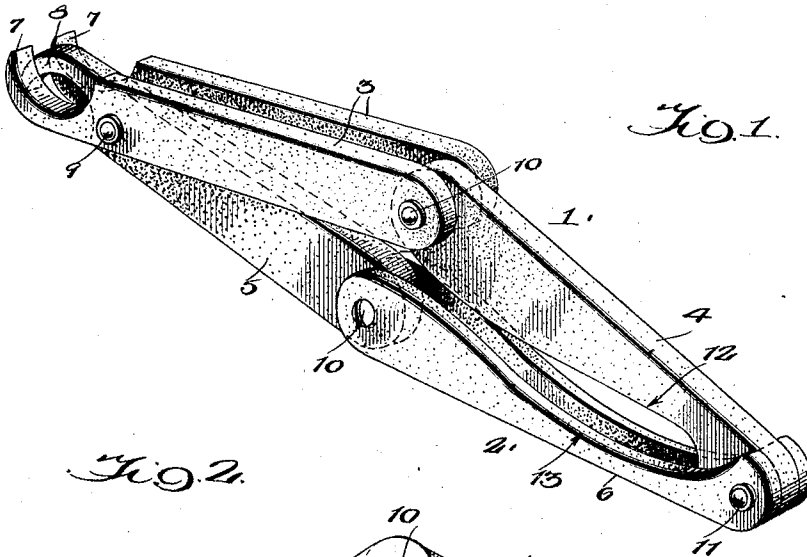
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SAFETY FUSE GRIP

Filed March 29, 1924



WITNESSES

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ROBERT ELLSWORTH LEE CURTIS, OF SEATTLE, WASHINGTON.

SAFETY FUSE GRIP.

Application filed March 29, 1924. Serial No. 702,921.

To all whom it may concern:

Be it known that I, ROBERT E. L. CURTIS, a citizen of the United States, and resident of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Safety Fuse Grips, of which the following is a specification.

My invention relates to improvements in tongs and it consists of the constructions, combinations and arrangements herein described and claimed.

An object of the invention is to provide a tongs or grip made of suitable insulating material and designed for the specific purpose of removing and replacing cartridge fuses from fuse blocks, and handling other live electrical appliances from which there is danger of receiving a shock.

Other objects and advantages will appear in the following specification, reference being had to the accompanying drawings, in which

Fig. 1 is a perspective view of the improved insulated grip,

Fig. 2 is a side elevation thereof showing it open, and

Fig. 3 is a plan view.

The term tongs as used in the succeeding description is intended to be synonymous with the term grip as employed in the title of the invention. The specific purpose for which the safety grip is designed is the handling of fuses both in removing and replacing them from a fuse block. However, the grip is not confined to this particular use as it may be employed in handling live electric wires and such other appliances from which there is danger of receiving an electric shock upon handling.

A pair of toggle joints 1 and 2 constitute the grip. The first joint is composed of a pair of grip levers 3 and a single hand lever 4. The second joint is composed of a single grip lever 5 and a pair of hand levers 6.

The purpose of thus designating the parts of the grip is to distinguish between the portions which are held in the hand during operation and the portions which grip the object to be handled. For the latter purpose the grip levers 3 and 5 terminate in claws 7 and 8 respectively which are curved toward each other so that the object in question may either be embraced in case it is a wire,

or may be firmly gripped in case it is a fuse.

Pivots 9, 10 and 11 connect the various levers of the toggle joints. The connection of the various levers is about as loose as is the connection of the ordinary pliers, and the use of the grip is very much the same. Confronting portions of the hand levers 4 and 6 are cut or curved away as at 12 and 13 so that certain fingers of the hand may readily be inserted when holding the grip for the purpose of spreading the toggle joint.

It is to be emphasized that all of the levers of each toggle joint are made of insulating material. This material may consist of fiber, hard rubber or any other material which is customarily used and is suitable for the purpose. The obvious intention of making the grip of insulating material throughout is to fully protect the operator from receiving shocks upon handling such electrical appliances from which there is danger of leakage.

The operation is understood with little difficulty. The safety grip is taken in one hand and operated somewhat on the order of the ordinary pliers, the reduced portions 12 and 13 serving to admit the fingers of the holding hand so that the toggle joints 1 and 2 may be separated and the prongs 7 and 8 opened. These prongs or claws are readily adaptable to the ordinary electric fuse, a secure hold being got thereupon upon pressing the toggle joints together in the middle. As stated before the grip may be employed in picking up charged electric wires, and for the purpose of safety the parts of the grip are made of insulating material. Although the use of the grip is herein emphasized as being confined to the electrical art it is doubtless within the purview of the invention to construct the grip of other material so that its field of use may in turn be extended.

While the construction and arrangement of the improved safety grip as herein described and claimed is that of a generally preferred form, obviously, modifications and changes may be made therein without departing from the spirit of the invention or the scope of the claim.

I claim:—

A safety grip composed of a pair of toggle joints each pair consisting of a double link

and single link arrangement said links being of insulating material, means by which the links are pivoted together completing the joint and pivoted to each other to complete the grip, said links being so disposed that
5 a single link occupies the space between adjoining double links, gripping means including claws at one end of the grip, there

being a single claw on a single link and a claw on each of the confronting double links, 10 portions of the other links being removed at confronting places to permit insertion of the fingers of the holding hand so that the grip may be operated on the order of pliers.

ROBERT ELLSWORTH LEE CURTIS.