J. A. BRIGGS.

PLIERS.

APPLICATION FILED OCT. 29, 1918.

1,305,873.

Patented June 3, 1919.

Fig. 1.

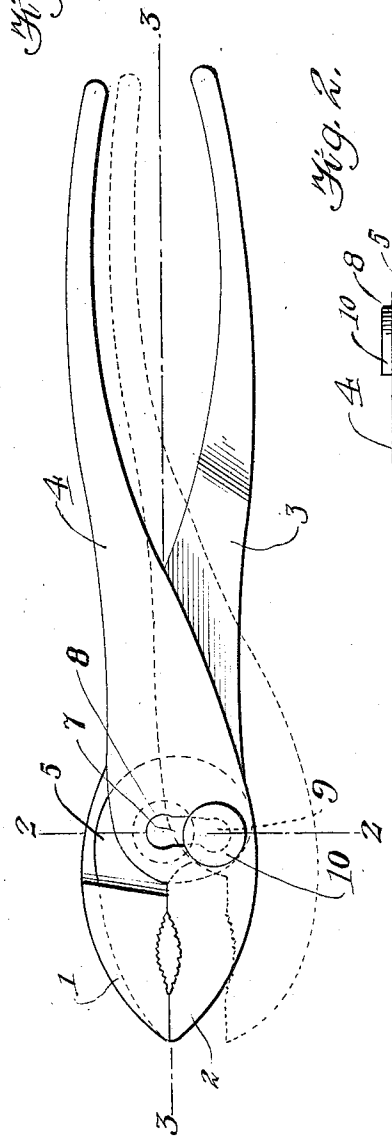


Fig. 2.

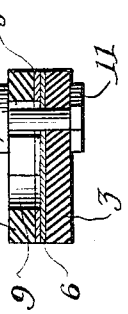
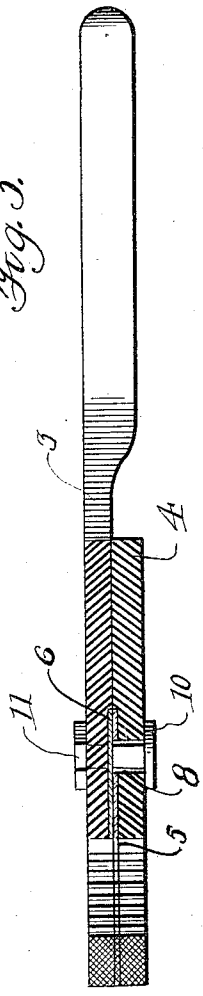


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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PLIERS.

1,305,873. Specification of Letters Patent. Patented June 3, 1919.

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To all whom it may concern:

Be it known that I, JESSE A. BRIGGS, a citizen of the United States, residing at Wesleyville, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Pliers, of which the following is a specification.

This invention relates to improvements in insulated pliers for use by electrical workers in removing and replacing fuses, and also for tightening nuts, bolts, screws and for doing other like work, and to protect the user from danger from high tension current, the object of the invention being to provide improved pliers of this kind which are made of non-conducting material, which are so strengthened and reinforced as to be extremely durable and reliable and which may be adjusted according to the size of the work.

With the above and other objects in view the invention consists in the construction, combination and arrangement of parts hereinafter described and claimed.

In the accompanying drawing:—

Figure 1 is a side elevation of a pair of pliers constructed and arranged in accordance with my invention, and showing one of the jaws in one position in full lines and in a shifted position in dotted lines.

Fig. 2 is a transverse sectional view of the same on a plane indicated by the line 2—2 of Fig. 1.

Fig. 3 is a longitudinal sectional view of the same on the plane indicated by the line 3—3 of Fig. 1.

In the embodiment of my invention I provide a jair of jaws 1, 2 which are made of fiber, and which are respectively provided with lever arms 3, 4 which are also made of fiber so that the jaws and the lever arms thereof are of insulating material and the user of the plier is protected effectually from danger from high tension current.

The lever arms are crossed and are pivotally connected together. Liner plates 5, 6 which are preferably made from steel or iron, are arranged on the opposing sides of the lever arms and are recessed therein as shown. These liner plates also extend to the outer ends and to the inner or work engaging faces of the jaws so that the liner plates serve to effectually strengthen the lever arms and also the jaws and serve to render the pliers extremely strong and durable, and moreover provide effective gripping surfaces to the jaws.

The lever arm 4 is provided with a transverse slot 7, the ends of which are enlarged as at 8, 9, the enlarged ends of said slot being practically circular. A correspondingly shaped slot is formed in the liner plate which is attached to the said jaw and lever arm 4, the slot of said liner plate being coincident with that of said lever. A pivot bolt 10 is secured to the lever arm 3, passes therethrough, and also through the slot and is shiftable in said slot and engageable in either end 8 or 9 thereof, so that the jaws may be arranged either close together or at a considerable distance apart to enable the pliers to be accommodated to the size of the work. The pivot bolt is flattened on opposite sides as at 11, so that when the jaws are arranged in open position the said flat sides of the pivot bolt are coincident with the narrow side of the slot and the jaws may be shifted accordingly to arrange the pivot bolt in either end of the slot as may be desired.

While I have herein shown and described the preferred form of my invention I would have it understood that changes may be made in the form, proportion and construction of the several parts without departing from the spirit of my invention and within the scope of the appended claim.

Having thus described my invention I claim:—

Pliers comprising a pair of lever arms pivotally connected in crossed relation, jaws formed integrally upon said arms, said lever arms and jaws being formed entirely of insulating material, the opposing sides of said jaws being recessed for an area extending around the pivot point and to the extreme ends and working faces of the jaws, and metallic liner plates disposed within said recess and having edges terminating flush with and conforming to the edges of the working faces of the jaws.

In testimony whereof I affix my signature.

JESSE A. BRIGGS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."