A. J. JONES.

PLIERS.

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1,231,167.

Patented June 26, 1917.

Fig. 1.

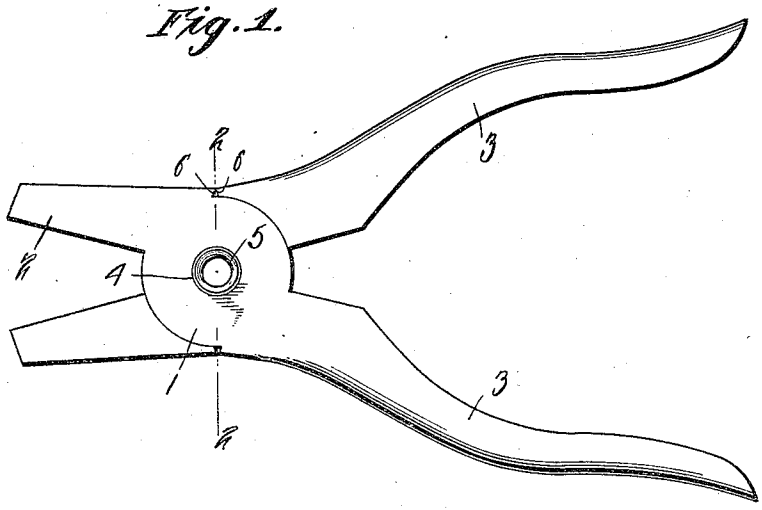


Fig. 2.

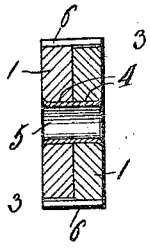


Fig. 3.

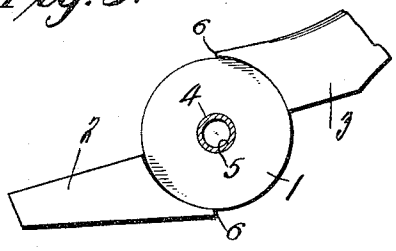
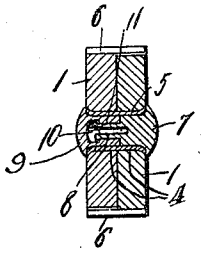


Fig. 4.



WITNESSES

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PLIERS.

1,231,167. Specification of Letters Patent. **Patented June 26, 1917.**

Application filed September 30, 1916. Serial No. 123,135.

To all whom it may concern:

Be it known that I, AARON J. JONES, native of Barbados, B. W. I., and subject of Great Britain, residing at Ancon, Canal Zone, Panama, have invented certain new and useful Improvements in Pliers, of which the following is a specification.

This invention relates to certain new and useful improvements in pliers.

The primary object of the invention resides in the provision of a pair of pliers which will be constructed in such manner that they may be readily formed from a compressed fiber or other heat and electricity insulating material and the two parts of the pliers readily and securely fastened together.

Another object of the invention resides in the provision of a pair of pliers of the above stated character which will be especially adapted for use by electricians and which will be composed of the minimum number of parts.

For a further object, the invention contemplates the provision of a pair of pliers of the above stated character which will be highly efficient in use and in which the metallic locking-members positioned in the jaw-connecting sleeve, which forms the pivot or fulcrum of the jaws, will be completely surrounded by the body of the two halves of the pliers and thereby insulated from the handles.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the accompanying drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views,

Figure 1 is an elevation of the improved form of pliers.

Fig. 2 is a transverse detail section on the plane of line 2—2 of Fig. 1.

Fig. 3 is a detail section on the plane of line 3—3 of Fig. 2, and

Fig. 4 is a detail section through the central or pivotal portion of the pliers with the additional pivot or fulcrum members positioned in the sleeve.

Referring more in detail to the drawings, 1 designates the body portions of the halves of the pliers, from which body portions extend the jaws 2 and the handles 3, all of conventional form. Each half of the pliers is preferably formed in a single piece and composed of a compressed fibrous material, thereby forming a pair of pliers, which will be non-conductors of heat and electricity.

The body portions 1 are reduced in thickness to about one-half the thickness of the jaws 2 and handles 3, so that the corresponding side faces of the jaws 2 and handles 3 will be in about the same plane when the body portions 1 are placed upon one another with their central openings 4 registering to receive the pivot or fulcrum sleeve 5, the opposite ends of which are flared after insertion of the sleeve, as shown in Figs. 1 and 2, to retain the body portions 1 in proper position. It will be understood that outward movement of the jaws 2 is limited by the usual shoulders 6 formed at the connection of the curved sides of the body portions 1 with the jaws 2 and handles 3.

A modified form of the invention is shown in Fig. 4 which is most desirable and is quite advantageous. This form consists of the sleeve 5 in which is mounted the headed pivot members or rivets 7 which are adapted to interlock within said sleeve 5, one of said rivets 7 being provided with resilient locking legs 8 having outwardly turned ends 9 which are adapted to enter the enlarged inner end of the socket 10 formed in the opposite or remaining pivot member or rivet 7 and catch behind the shoulder or flange 11, at the connection of the enlarged inner end of said socket 9 with the smaller outer portion of the same. It will be seen that when this form of pivot, is employed, the halves of the pliers will be securely fastened together and all danger of separation of the same will be eliminated.

While the form of the invention shown and described is what is believed to be the preferred form thereof, it is nevertheless to be understood that minor changes may be made therein without departing from the scope or spirit thereof as claimed.

What is claimed as new is:

1. The combination with a pair of members adapted for pivotal movement having registering recesses, of a sleeve positioned in the recess, a pivot pin mounted in the sleeve and formed in two sections one section being provided with a recess and further provided with an annular shoulder, and re-

silient locking-legs carried by the other section and engaged with the annular shoulder.

2. The combination with a pair of members adapted for pivotal movement having registering recesses, of a sleeve positioned in the recess, a pivot pin mounted in the sleeve and formed in two sections one section being provided with a recess and further provided with an annular shoulder, and resilient legs carried by the other section having their extremities bent at right angles.

3. A pivot pin formed in two sections, each section having a head thereon one of the sections being provided with a recess and further provided with an annular recess, and resilient legs carried by the other section and having interlocking engagement with the annular shoulder.

4. A pair of pliers having apertured body portions, said body portions being overlapped with the apertures registering, a fulcrum sleeve positioned in said apertures, and interlocking securing members extended into said sleeve from the opposite ends of the same, one of said securing members having a socket formed therein with an enlarged inner end, and legs extended from the remaining securing member for engagement in said socket and provided with outwardly turned free extremities to cause interlocking of said members.

5. The combination with a pair of pliers and registering openings, of a sleeve mounted in the openings, a pivot member insertible in the sleeve from one side thereof and provided with a head, resilient legs carried thereby, and a second pivot member insertible in the sleeve from the opposite side thereof and provided with a recess and further provided with an annular shoulder which has interlocking engagement with the resilient legs.

In testimony whereof I affix my signature in presence of two witnesses.

AARON J. JONES.

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