Sept. 19, 1939. E. T. SHOVER 2,173,215

COMBINATION PLIER AND WRENCH

Filed April 28, 1938 2 Sheets-Sheet 1

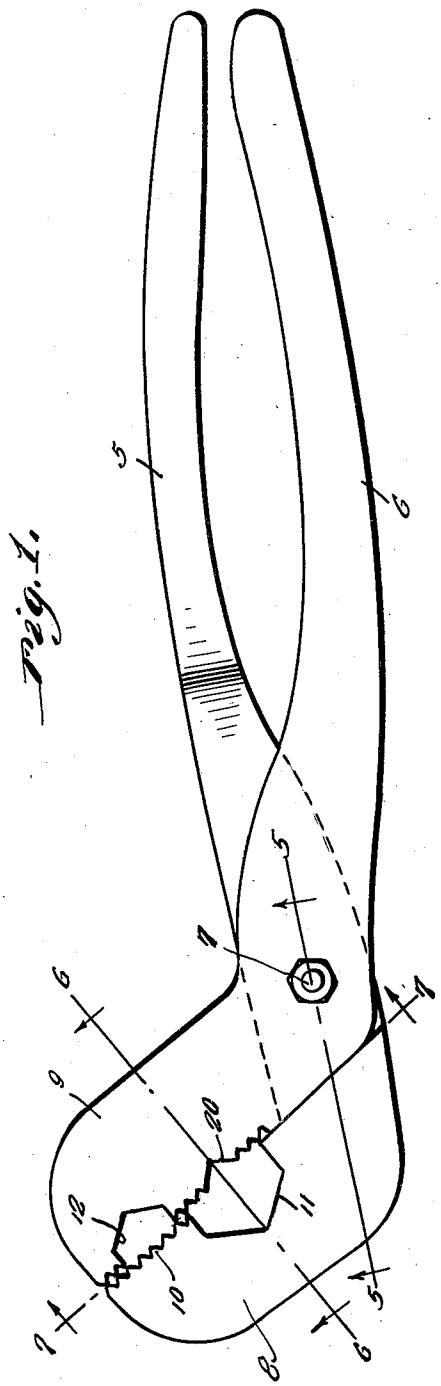


Fig. 1.

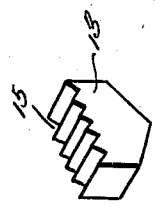


Fig. 3.

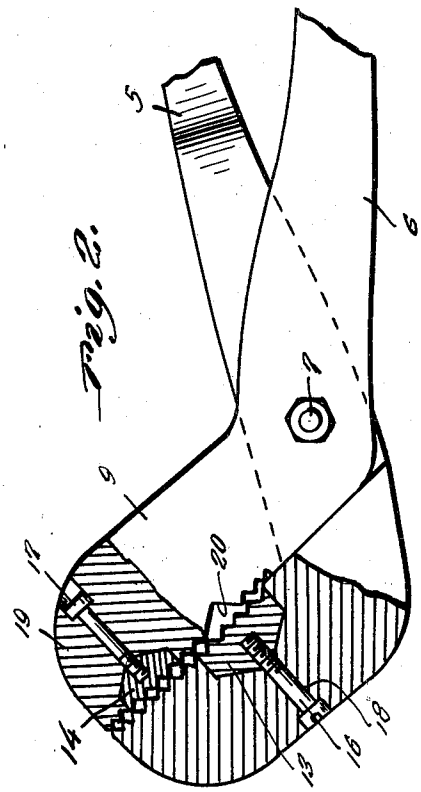


Fig. 2.

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COMBINATION PLIER AND WRENCH

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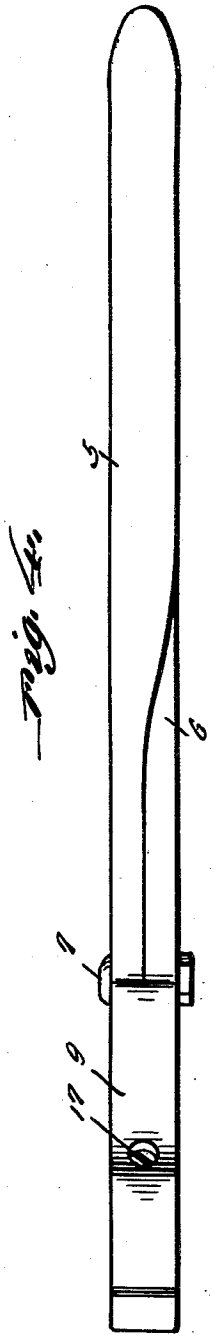


Fig. 4.

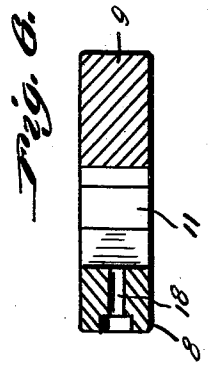


Fig. 3.

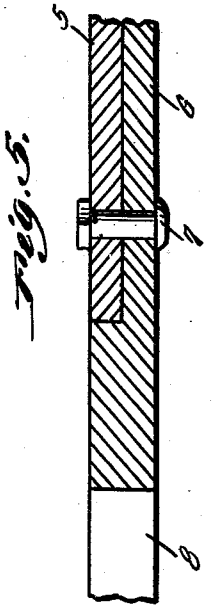


Fig. 5.

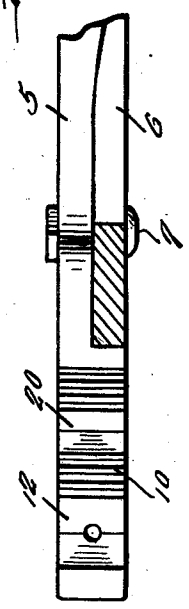


Fig. 2.

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UNITED STATES PATENT OFFICE

2,173,215

COMBINATION PLIER AND WRENCH

Elmer Tracy Shover, South Chicago, Ill.

Application April 28, 1938, Serial No. 204,861

1 Claim. (Cl. 81—52)

This invention relates to combination tools and an object of the invention is to provide a tool that can be used as a pipe or monkey wrench, and/or pliers.

In accordance with the present invention the working jaws of the tool are provided with notches for use when the tool is used as a wrench, together with removable jaws adapted to conformably fit within the notches for use when the tool is used as pliers.

The invention together with its objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings wherein:

Figure 1 is a plan view of the tool,

Figure 2 is a fragmentary detail plan view of the tool at the jaw-equipped end thereof with certain parts broken away and shown in section, and showing the manner of securing the removable jaws to the main jaws,

Figure 3 is a perspective view of one of the removable jaws,

Figure 4 is an edge elevational view of the tool,

Figures 5, 6 and 7 are detail sectional views taken substantially on the lines 5—5, 6—6 and 7—7 respectively of Figure 1.

Referring to the drawings by reference numerals it will be seen that in accordance with the present invention the tool comprises a pair of handles 5, 6 that are pivoted together as at 7.

The handle 5 adjacent the pivoted end thereof is formed with an integral jaw 8 that is disposed at an obtuse angle relative thereto while the jaw 6 adjacent its pivoted end is formed with an integral main jaw 9 disposed at an angle to said handle and complementing the jaw 8.

The jaws 8 and 9 have their working or gripping faces corrugated or otherwise formed to provide therefor gripping teeth 10.

The jaw 8 is provided in its working edge with a four-sided notch 11 that is relatively large while the jaw 9 in its working edge, and nearer to the free end of the jaw is provided with a similar shaped notch 12 that is smaller than the notch 11.

Notches 11 and 12 are adapted to be used when the tool is used as a wrench, the notch 11 being used for work of one size, and the notch 12 for work of a smaller size.

Adapted to fit conformably within the notch 11 is an auxiliary jaw 13 while a similarly shaped but smaller jaw 14 is provided and adapted to seat within the notch 12, jaws 13 and 14 being used when the tool is used as pliers.

Jaws 13 and 14 as shown have working edges that are roughened or otherwise formed to provide teeth 15, corresponding with the teeth 10. When the jaws 13 and 14 are associated with jaws 8 and 9 the working surfaces of said jaws 13 and 14 form continuations of the working surfaces 10 of the respective jaws 8 and 9.

The jaws 13 and 14 are detachably secured to the respective jaws 8 and 9 through the medium of attaching screws, the screw for the jaw 13 being indicated by the reference numeral 16, and the screw for the jaw 14 being indicated by the reference numeral 17.

To accommodate the screw or bolt 16 jaw 8 is provided with an opening 18 therethrough and the opening 18 is diametrically enlarged at the end thereof remote from the notch 11 so as to accommodate the head of the screw 16.

To accommodate the bolt 17 jaw 9 is provided with an opening 19 that at the end thereof remote from the notch or recess 12 is diametrically enlarged to accommodate the head of the screw or bolt 17 as clearly shown in Figure 2.

As shown, jaw 9 adjacent that end thereof integral with handle 6 is provided in the working edge thereof with a V-shaped notch 20, and this notch may be dispensed with if desired without departing from the spirit and scope of the invention. Notch 20 is provided for accommodating a nut or other work that is brought into use when the tool is used as a wrench.

From the above it will be seen that I have provided a tool which may be readily used either as a wrench or as pliers, and that jaws 13 and 14, upon becoming worn, can be readily replaced.

It is thought that a clear understanding of the construction, utility and advantages of a tool of this character will be had without a more detailed description.

Having thus described the invention what is claimed as new is:

A combination wrench and pliers tool comprising a pair of complemental jaw members pivotally connected together for relative movement toward and from each other, each of said members having a serrated face for gripping when the tool is used as a pliers and a poly-sided recess in said face for receiving a nut when the tool is used as a wrench, and serrated inset jaw sections fitting in said recesses flush with the working faces of said members, to provide unbroken working faces on the latter when used as a pliers, said sections being removable to adapt the tool for use as a wrench.

ELMER TRACY SHOVER.