F. E. DAVIS.

WRENCH.

APPLICATION FILED JAN. 14, 1919.

1,380,044. Patented May 31, 1921.

Fig. 1.

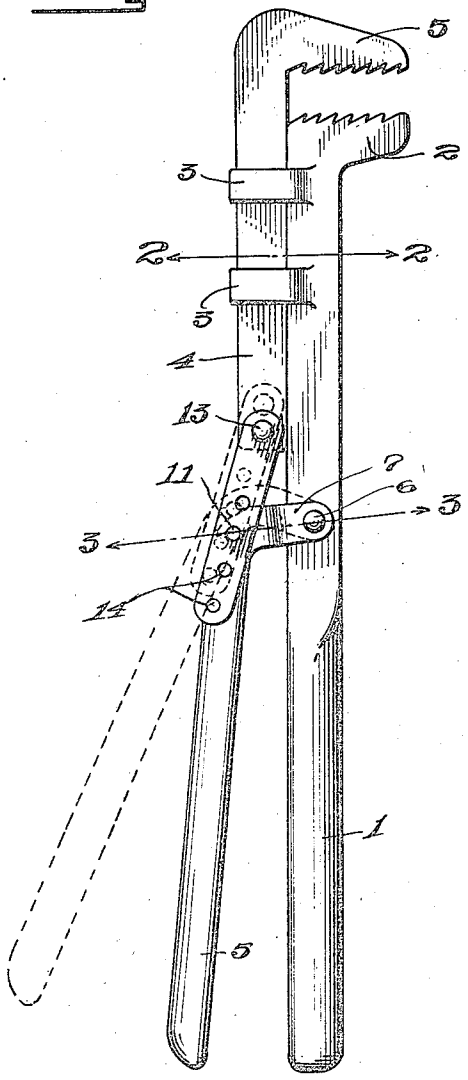


Fig. 2.

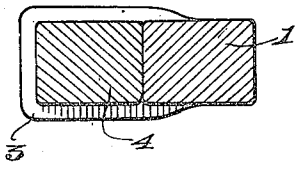
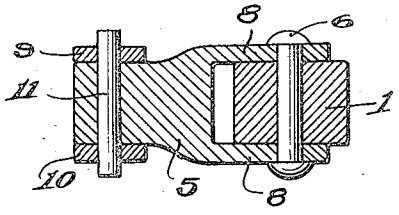


Fig. 3.



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FRANKLIN E. DAVIS, OF VAN NORMAN, MONTANA.

WRENCH.

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To all whom it may concern:

Be it known that I, FRANKLIN E. DAVIS, a citizen of the United States, residing at Van Norman, in the county of Dawson and State of Montana, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, particularly designed for use in close places, and an object of the invention is to provide a wrench comprising a rigid or immovable jaw, and a movable jaw, which latter jaw is operated through the medium of a pivotally carried handle or lever and a link mechanism for properly adjusting it to securely fit an article to be rotated.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawing, forming a part of this specification, and in which drawing:

Figure 1 is a side elevation of the improved wrench.

Fig. 2 is a cross section on the line 2—2 of Fig. 1.

Fig. 3 is a cross section on the line 3—3 of Fig. 1.

Referring more particularly to the drawing, wherein like characters indicate like and corresponding parts, throughout the several views, 1 indicates the handle of the wrench which has the rigid jaw 2 carried thereby. The handle 1 also has a pair of metal straps 3 formed integrally therewith which form guides for guiding the sliding movement of the shank 4 which carries the movable jaw 5′ upon its outer end. The jaws 2 and 5′ are provided with serrated faces facing each other for securely gripping an article to be rotated.

The handle 1 has an auxiliary handle or lever 5 pivotally connected thereto as shown at 6, said lever having an angled end 7 which is bifurcated to form spaced arms 8 through which the pivot bolt or rivet 6 extends and which engage one upon each side of the handle 1. Links 9 and 10 are pivotally connected by means of a pin 13, to the lower end of the shank 4 and they are provided with a plurality of spaced openings 14, adapted to receive the pin 11 therethrough to permit adjustment or adjustable connection between the links and the lever 5 for regulating the movement of the shank 4 and jaw 5′ carried thereby, by the movement of the lever or auxiliary handle 5. The pin 11 is rigidly carried by the lever 5 at the angle thereof and the links 9 and 10 are made of spring metal so as to allow them to be sprung outwardly for connection with or disconnection from the ends of the pin 11.

When the auxiliary handle or lever 5 is moved outwardly away from the handle 1, as shown in dotted lines in Fig. 1 of the drawing, the jaw 5′ will be moved away from the rigid jaw 2 to permit the adjustment of the jaws to properly fit an article to be rotated or turned, and when the auxiliary handle or lever 5, is pressed or forced toward the handle 1, the jaw 5 will be brought into secure gripping engagement with the article being gripped, and consequently the firmer the grip that is maintained upon the handle and lever of the wrench, the firmer will be the grip between the jaws of the wrench and the article therebetween, thereby effectively preventing the slipping of the wrench upon the article during the turning thereof.

Changes in details may be made without departing from the spirit of this invention, but;

I claim:

1. In a wrench, the combination of a handle, a jaw rigidly carried thereby, a jaw movable toward and from said rigid jaw, a lever carried by said handle, and means for adjustment of the effective throw of said movable jaw toward and from said rigid jaw and for imparting movement of said lever element to said movable jaw element, comprising a pin rigid with one of said elements and a relatively long flat spring link pivoted at one end portion to the other element, said link provided with a plurality of perforations, and adapted to be flexed laterally to dispose the said pin in any one of the said perforations to act as a pivotal connection at the other end portion of the link.

2. A wrench comprising in combination, a handle, a shank carried by said handle and slidable longitudinally thereof, companion jaws carried by said handle and shank at adjacent ends thereof, an operating lever pivotally connected to the handle, projec-

tions carried by said lever extending laterally at both sides thereof, and a pair of relatively long flat links pivotally secured to the slidable shank and engaging the opposite sides of the lever, said links being made of spring material and having a plurality of alined pairs of openings, and adapted to be flexed in diverging relation and to spring into normal position to dispose said projections in any pair of openings of said links to act as pivotal connection for the other end portion of the links.

FRANKLIN E. DAVIS.