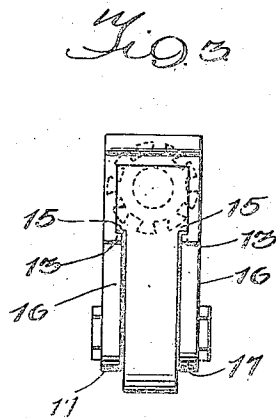
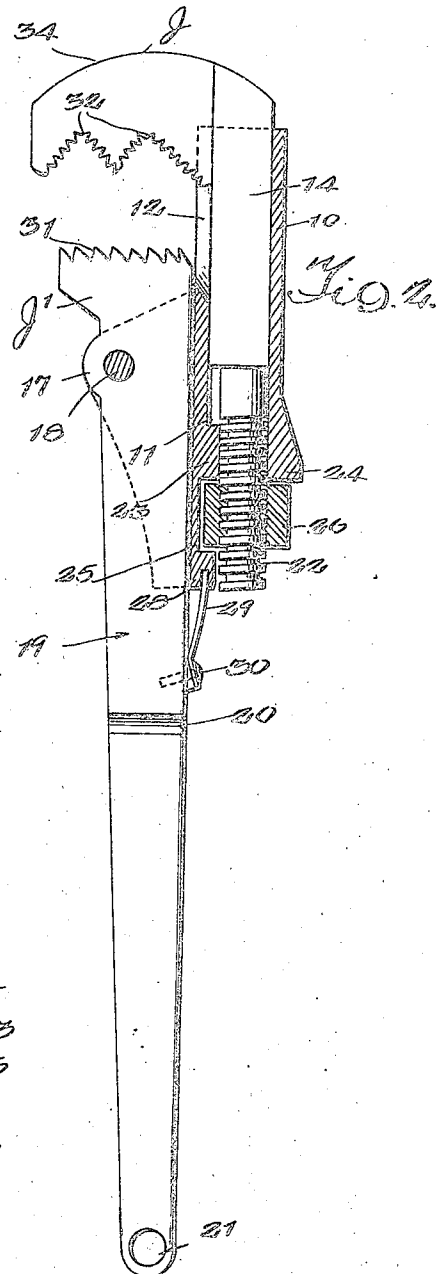
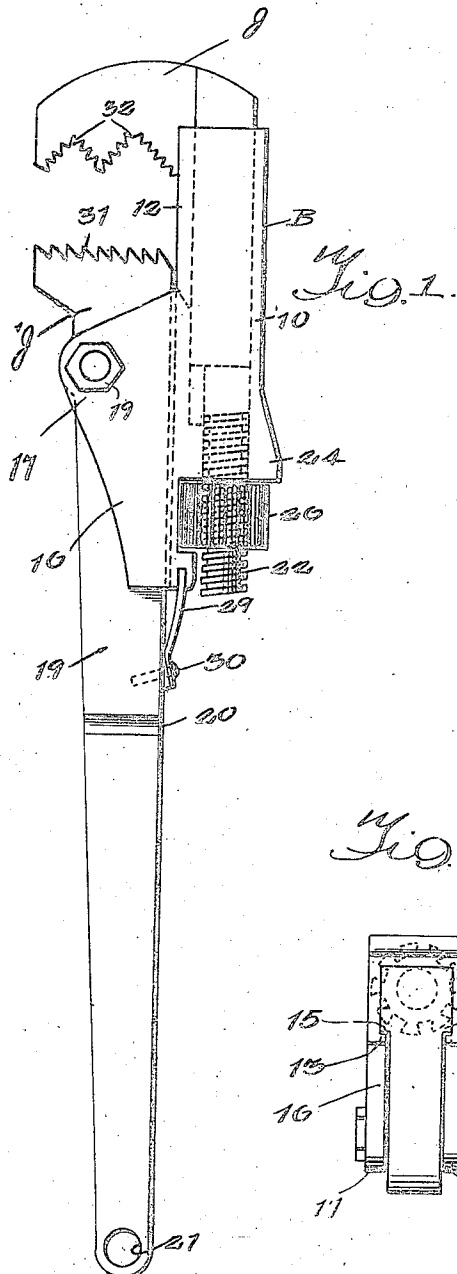


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A. W. MINNEY.
WRENCH.
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1,440,404



WITNESSES
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UNITED STATES PATENT OFFICE.

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WRENCH.

Application filed November 1, 1921. Serial No. 512,003.

To all whom it may concern:

Be it known that I, ARTHUR WELLS MINNEY, a citizen of the United States, and a resident of Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to improvements in pipe wrenches.

Among the objects of the invention is to provide a wrench of the above character which is simple in construction, which is easy to manipulate, and which is compact and exceedingly strong.

It is also an important object in the invention that the jaws of the wrench be shaped to operate upon pipes of different diameters and without lacerating or marring the pipes to any appreciable extent.

It is a further object of the invention that the jaws of the wrench be adapted to grip a pipe upon the initial movement of the wrench for turning the pipe.

Other objects, and objects relating to details of construction, combination and arrangement of parts will hereinafter appear in the detailed description to follow.

The invention is illustrated by way of example in the accompanying drawings, in which,

Figure 1 is a perspective view of the wrench constructed in accordance with the present invention,

Figure 2 is a view similar to Figure 1 but showing in longitudinal section the body portion of the wrench, and

Figure 3 is a forward end elevation of the wrench.

Referring to the drawings more particularly, the wrench consists in a body member B, a movable jaw J and a pivoted jaw J'.

The body member B comprises an elongated portion 10 which is hollow and the passage 11 therein being preferably squared in cross section and adapted for slidingly accommodating the shank 14 which carries the movable jaw J. The shank 14 is slightly greater in thickness than the jaw J to form the shoulders 15. The forward face of the body portion 10 is recessed as at 12 to permit the upward and downward movement of the jaw J and also to form the retaining ledges or projections 13 with which the shoulders 15 of the jaw shank 14 are adapted to abut or engage.

The forward face of the body member B rearward of the recess 12 has extended therefrom a pair of wings 16, each of which terminates in a rounded extension 17 and between said extensions there is pivoted a handle generally indicated by the reference numeral 19, said handle having formed upon its forward end the jaw J' and its free end being reduced from the point 20 as shown. Also the free end of the handle 19 terminates in an eye 21, the purpose of which is to hang the wrench upon a nail or the like when not in use.

The rear end of the shank 14 upon which the jaw J is formed terminates in a reduced threaded portion 22, the threads being preferably of the type shown and operatively engaging with a threaded portion 23 formed at the rear end of the member B, also the portion 23 of the member B is slightly enlarged as at 24, the purpose of which is to reinforce this portion of the member. As seen in Figures 1 and 2, the wings 16 extend slightly to the rear of the body member B and are formed with a recess 25 in which the grooved nut 26 is adapted to be disposed, said nut being threaded upon the threaded portion 22 of the jaw shank 14. Also the rearwardly extending portions of the wings 16 are provided with grooves as at 28 which are adapted for receiving the free ends of the spring finger 29, said spring finger being secured to the handle 19 of the wrench by a set screw 30 and preferably in the manner shown.

In constructing the jaw J' it is preferable that its gripping face be disposed at substantially right angles to the body of the wrench and serrated to form teeth 31 as shown, while the similar face of the movable jaw J is formed with a pair of V-shaped notches 32 and 33, the notch 33 being of greater depth than the notch 32 and each of the notches serrated as shown. Also it is preferable that the forward face of the movable jaw J be rounded as at 34.

In the use of the present wrench the slotted nut 26 is manipulated for moving the jaw J and to bring a pipe between the pair of jaws of the wrench. Whenever a large pipe is to be turned then the jaws are brought so that the pipe will be disposed in the larger notch 33. As is obvious by this arrangement the pipe is engaged by three serrated faces and so held for turning. It may be mentioned that this feature is of ad-

vantage in that the pipe is thoroughly gripped and is not notched or lacerated when turning the same. In case a small pipe is to be turned, then the jaws should be brought together so that the pipe is disposed in the smaller notch 32.

It may be mentioned that the recess 12 of the body member B permits the free upward and downward movement of the movable jaw J and that by providing the shoulders 15 upon the movable jaw and the co-operating retaining ledges 13 in the portion 10 of the body member B that the greater part of the load imposed upon the jaw J may be taken up by the body member. Also it is to be pointed out that the spring 29 serves to yieldingly restrain the pivoted jaw J' from movement which is of advantage in preventing the wrench to release itself when operating upon a pipe.

While I have shown and described the preferred form of my invention I wish it to be understood that I am aware of the fact that the construction, combination and arrangement of parts may be changed by those skilled in the art without departing from the spirit of the invention as indicated by the appended claims.

What I claim is:

1. A wrench of the character described, comprising an elongated hollow body member having a slot extending longitudinally from its forward end, a jaw slidable within

said slot, said jaw having a shank extending through the body member, means for advancing and retracting the said jaw, a second jaw formed with a handle, a pair of ears formed upon the body member, a second jaw disposed between said ears and having a handle formed therewith, the inner face of said handle and jaw abutting the body member, and means for pivoting the second jaw to the body member at a point intermediate the length of the body member.

2. A wrench of the character described, comprising an elongated hollow body member having a slot extending longitudinally from its forward end, a jaw slidable within said slot, said jaw having a shank extending through the body member, means for advancing and retracting the said jaw, a second jaw formed with a handle, a pair of ears formed upon the body member, a second jaw disposed between said ears and having a handle formed therewith, the inner face of said handle and jaw abutting the body member, means for pivoting the second jaw to the body member at a point intermediate the length of the body member, and a spring finger carried by the handle of the second jaw and engaging with the body member and adapted to resist pivotal movement of the second jaw.

ARTHUR WELLS MINNEY.