No. 789,513. PATENTED MAY 9, 1905.

G. J. WHITE.

WRENCH.

APPLICATION FILED JAN. 11, 1905.

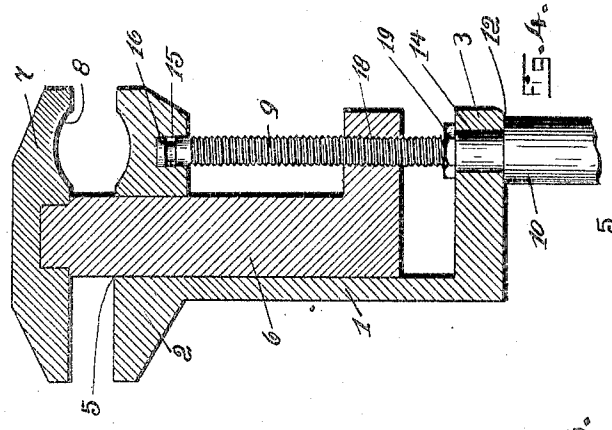


Fig. 4.

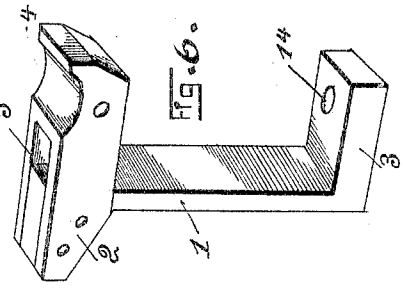


Fig. 6.

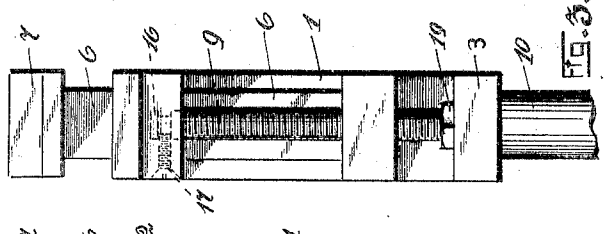


Fig. 3.

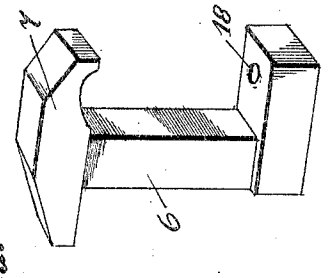


Fig. 5.



Fig. 2.

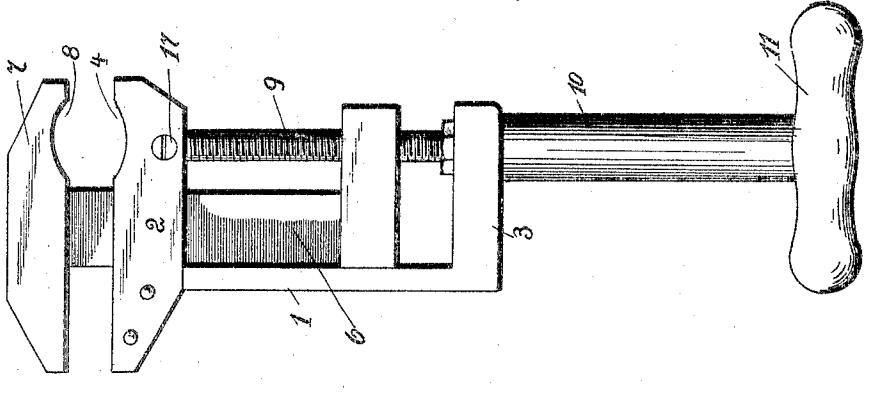


Fig. 1.

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UNITED STATES PATENT OFFICE.

GEORGE J. WHITE, OF WASHINGTON, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 789,513, dated May 9, 1905.

Application filed January 11, 1905. Serial No. 240,609.

To all whom it may concern:

Be it known that I, GEORGE J. WHITE, a citizen of the United States of America, residing at Washington, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in wrenches, and more particularly to that type which is adapted for use in connection with curved and flat surfaces.

The object of this invention is to provide a wrench which can be easily and quickly manipulated to adjust the same to a pipe or a nut, and in constructing my improved wrench I have provided certain novel features of construction which permits of the wrench being manufactured at a comparatively small cost.

Briefly described, my improved wrench is extremely simple in construction, consisting of a U-shaped jaw which serves functionally as the shank of the wrench, and in this jaw is mounted a substantially U-shaped jaw which is slidably adjustable therein by a screw-threaded member carried by the "shank" of the wrench, as it will be hereinafter termed.

The above construction will be hereinafter more fully described and then specifically pointed out in the claims, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved wrench. Fig. 2 is an edge view of the wrench, partly broken away. Fig. 3 is a view of the opposite edge of the wrench, partly broken away. Fig. 4 is a vertical sectional view of my improved wrench, a portion of the handle thereof being broken away. Fig. 5 is a perspective view of the adjustable jaw, and Fig. 6 is a similar view of the stationary jaw.

To put my invention into practice, I have constructed a wrench comprising a substantially U-shaped jaw 1, which serves functionally as the "shank" of the wrench, and as such it will be hereinafter termed. The shank is formed with right-angular extensions 2 and 3, the extension 2 forming a stationary jaw, and the one edge of this jaw is provided with a smooth concavity 4. The extension 2 is provided with an aperture 5, in which is mounted a substantially U-shaped adjustable jaw consisting of a substantially L-shaped member 6, carrying a jaw 7. This jaw is provided with a smooth concavity 8 in its under face in vertical alinement with the concavity 4, formed in the angular extension 2 of the shank of the wrench. The angular extensions 2 and 3 of the shank are provided with a screw-threaded member or rod 9, which carries a smooth portion 10 and a handle 11. Intermediate the screw-threaded rod 9 and the smooth portion 10 is formed a shoulder 12, upon which rests the angular extension 3 of the shank of the wrench, this angular extension being provided with an aperture 14, through which the screw-threaded rod or member 9 may protrude. The angular extension 2 is provided in its under face with a recess 15, in which is rotatably secured the upper end of the screw-threaded rod 9. This upper end of the rod is provided with a neck portion 16, into which a screw 17 is adapted to protrude, that is carried by the angular extension 2. The lower arm of the L-shaped member 6 is provided with a screw-threaded aperture 18, through which the screw-threaded rod 9 extends.

The reference-numeral 19 designates a retaining-nut that is mounted upon the screw 9.

To adjust the slidable jaw of my improved wrench, the handle 11 is rotated, and as the screw-threaded rod 9 is turned in unison with said handle the member 6 will be raised and lowered within the shank of the wrench and the jaw 7 moved to any desired position in relation to the angular extension or jaw 2.

By the construction of my improved wrench it will be observed that the same can be readily used in connection with flat surfaces as easily as with curved surfaces, the one edge of the wrench being used for flat surfaces, while the opposite edge is used for curved surfaces, such as pipes. When my improved wrench has been secured upon an object by rotating the handle 11 thereof, it is impossi-

ble for the same to slip or become disengaged from the object until the screw-threaded rod 9 has been rotated. The wrench as constructed by me is particularly adapted for use by engineers, where it is often necessary to leave the wrench upon the object while some immediate duty is being performed. The provision of the smooth concavities of the opposing jaws permits of the wrench being used for gripping piston-rods without injuring their surface.

It will be noted that various changes may be made in the details of construction without departing from the general spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a wrench, the combination of a substantially U-shaped jaw constituting the shank of the wrench and having two right-angular extensions, one of said extensions being formed with an aperture for the reception of an adjustable jaw, an adjustable jaw consisting of a substantially L-shaped member and a jaw member carried thereby, a screw-threaded rod passing through one of the angular extensions of the shank and through a screw-threaded aperture in the lower arm of said L-shaped member, said screw-threaded rod being swiveled at its upper end in the other angular extension of the shank, and a handle carried by said screw-threaded rod.

2. In a wrench, the combination of a stationary shank having two angular extensions, an adjustable jaw consisting of a substantially L-shaped member carrying a jaw member on its outer end and passing through an aperture in one of the angular extensions of the shank, a screw journaled in its opposite ends in the angular extensions of the shank and screwing through the lower arm of the adjustable jaw.

3. In a wrench, the combination with a shank having two right-angular extensions and a fixed jaw, of an adjustable jaw comprising an L-shaped member extending through an aperture in one of the extensions of the shank and carrying a jaw member on its outer end, with a screw swiveled at its opposite ends in the angular extensions of the shank and screwing through the lower arm of said L-shaped member and means carried by said screw for turning the same.

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

GEORGE J. WHITE.

Witnesses:

H. C. EVERT,

K. H. BUTLER.