(No Model.)

J. C. H. VAN DUIJL.

ADJUSTABLE SPANNER OR WRENCH.

No. 600,813. Patented Mar. 15, 1898.

Fig. 1a.

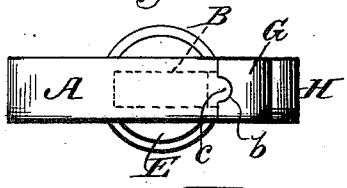


Fig. 2.

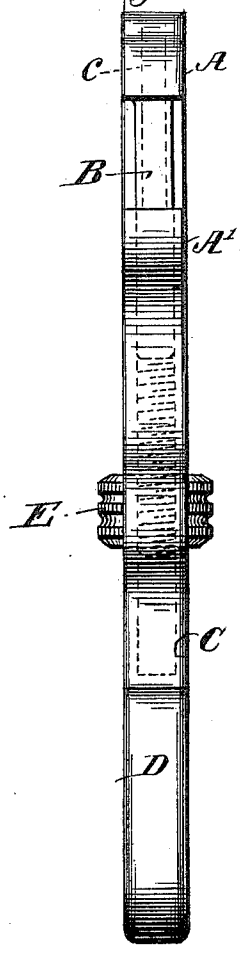


Fig. 1.

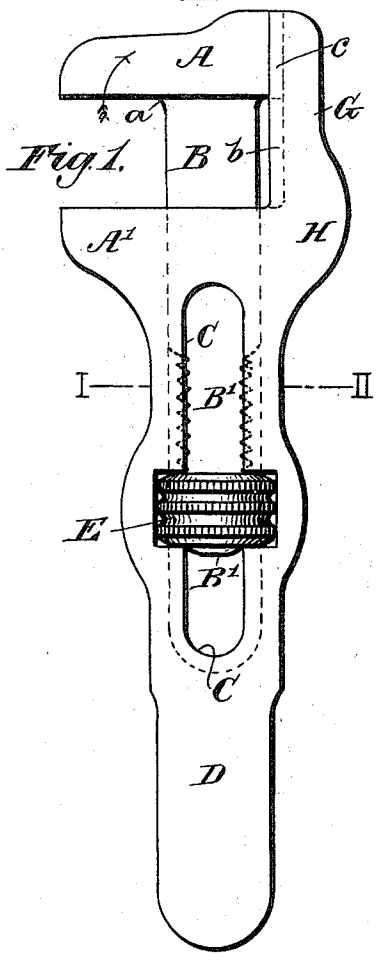


Fig. 3.

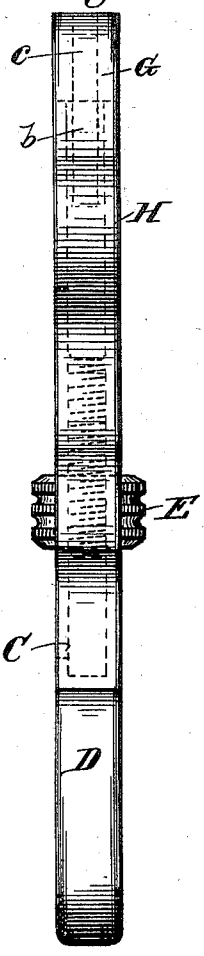
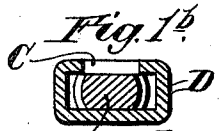


Fig. 1b.



Witnesses.
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Bruce A. Elliott.

Inventor.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOZUA CORNELIS HENDRIKUS VAN DUIJL, OF KRALINGSCHE-VEER, NETHERLANDS.

ADJUSTABLE SPANNER OR WRENCH.

SPECIFICATION forming part of Letters Patent No. 600,813, dated March 15, 1898.

Application filed April 5, 1897. Serial No. 630,813. (No model.)

To all whom it may concern:

Be it known that I, JOZUA CORNELIS HENDRIKUS VAN DUIJL, engineer, a subject of the Queen of the Netherlands, residing at Kralingsche-Veer, near Rotterdam, in the Kingdom of the Netherlands, have invented certain new and useful Improvements in Adjustable Spanners or Wrenches, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation; Fig. 1[a], a plan; Fig. 1[b], a transverse section on the line I II, Fig. 1; and Figs. 2 and 3, side elevations, looking from the left and right hand sides, respectively, of Fig. 1, showing my improved wrench.

This invention relates to adjustable spanners or wrenches, and has for its object to so construct wrenches that the edges of the upper and lower jaws shall not wear off and so that the movable upper jaw of the wrench cannot bend either backward or sidewise nor break off, as is often the case in wrenches of the well-known construction when more than usual work is required of them, or if they do not break off the upper jaw will slip off the nut and bend out of shape, so that the wrench becomes useless.

According to the present improvements the upper jaw of the wrench is strengthened by providing the wrench with a back piece or bridge against which the upper jaw bears in its different positions. The upper jaw is, moreover, guided in a groove in the said bridge or support, so that the wrench cannot slip off if used vertically above the nut.

Referring to the drawings, the body D of the wrench is recessed for a greater portion of its length to receive the flat slide-bar or shank B, having its lower part B′ provided with screw-threads at its edges and carrying at its upper end the sliding jaw A. The body of the wrench is provided on one of its faces with a longitudinally-extending slot or aperture C, somewhat narrower than the recess, which affords a "sight" of the threaded portion of the bar B to determine the limit of its outer adjustment and also ready access to the interior of the wrench for cleansing purposes. The side walls of the slot or aperture C serve as flanges to afford lateral support for the upper or plane part of the bar B.

In order to prevent bending back of the upper jaw A, the body of the wrench is extended, as at G, behind the said upper jaw A up to the top of this jaw when in its highest position, and is suitably strengthened, as at H, thus forming a bridge against which the upper jaw bears in its different positions. As the upper jaw A moves it slides closely over the face of the bridge G. This face is provided with a curved or square groove *b*, in which a correspondingly-shaped rib or ridge *c* at the back of the upper jaw A slides. By this arrangement the bar B is prevented from bending and the wrench from turning or slipping off the nut when it is used vertically above it. As the upper jaw is thus guided in the bridge, the sliding bar B cannot bend nor the wrench slip off so easily as heretofore and the edges of both jaws will always remain sharp.

What I claim is—

An adjustable spanner or wrench comprising the body portion having a jaw, an upward-extending support, and a strengthening portion for said support formed integral therewith, a longitudinal passage formed in said body portion, a longitudinally-extending slot or aperture provided in one face of the wrench affording access thereto, a movable jaw carrying a threaded shank adapted to work in said passage, a lateral opening formed in the body portion, a threaded nut seated in said opening and adapted to engage the threads of the shank, a groove in said support, and a feather on the movable jaw adapted to work in said groove, the combination being and operating substantially as and in the manner set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOZUA CORNELIS HENDRIKUS VAN DUIJL.

Witnesses:

CHARLES BROWN,

A. VAN DER LINDE.