

(No Model.)

A. H. KENT.
TAP WRENCH.

No. 515,292.

Patented Feb. 20, 1894.

Fig. 1

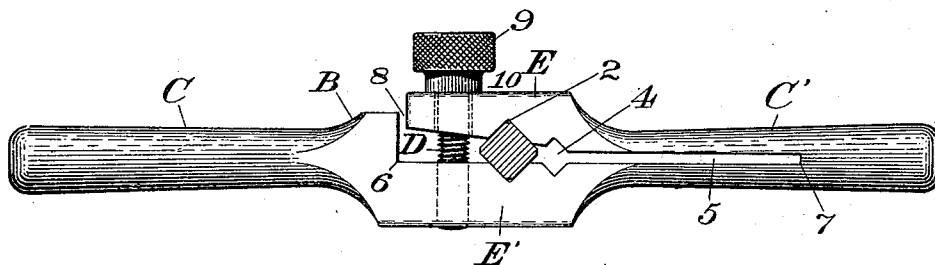
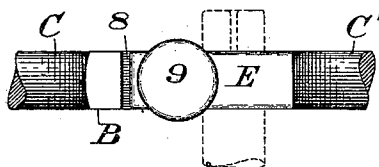


Fig. 2



Witnesses:

Wm. Byorkman,
Fred. J. Dole.

Inventor:

Albert H. Kent;

By his Attorney,

J. H. Richards

UNITED STATES PATENT OFFICE.

ALBERT H. KENT, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE PRATT & WHITNEY COMPANY, OF SAME PLACE.

TAP-WRENCH.

SPECIFICATION forming part of Letters Patent No. 515,292, dated February 20, 1894.

Application filed July 14, 1893. Serial No. 480,497. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. KENT, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tap-Wrenches, of which the following is a specification.

This invention relates to implements for holding taps, reamers, and like tools, and is especially intended as an improvement in that class of implements known as "tap-wrenches," the object of the invention being to provide a tap-wrench which will removably and firmly hold a tap, reamer, or like tool in place for use without liability of accidental displacement, and which may be readily adjusted, to a limited extent, to accommodate tools having heads of slightly varying diameters, and also allow the tool to be quickly applied to, and secured in place in, or removed from, the wrench, and to so construct the said wrench that it will be cheap, durable and effective.

In the drawings accompanying and forming a part of this specification, Figure 1 is a side elevation of a tap-wrench constructed in accordance with my invention, showing, in section, the head of the tap as secured therein. Fig. 2 is a plan view of a portion of the same.

Similar characters designate like parts in both the figures.

The tap-wrench, in the preferred form shown in the drawings, consists of the main body, designated in a general way by B, which constitutes the two tool-grasping members or jaws, as will be hereinafter described; the two handles, C, C', formed preferably integral with the body-portion, and the clamping-device, herein shown as a clamp-screw, D.

My improved tap-wrench is constructed as follows: A bar of steel is forged to form a tap-wrench blank, approximately the contour of the wrench shown in Fig. 1 of the drawings, and "machined" or turned down to form the handles C, C', which are usually round in cross-section, and the body-portion B intermediate to said handles, which body-portion will preferably be rectangular in section; after which the body-portion B is punched transversely to form one or more (herein shown as two) differently sized, squared or angular tool-head-receiving openings, 2 and 4.

The wrench, in practice, will be centrally and longitudinally divided or slit, as shown at 5, from a point, as 6, in close proximity to the handle C, or near the extreme left-hand side of the main body-portion B, to a point, as 7, terminating remote from the end of the handle C', as clearly shown in Fig. 1 of the drawings; and the main body is cross-cut, as shown at 8, at right angles to the slit 5, to form the tool-grasping jaws E, E'. This construction forms a pair of tool-grasping jaws, one of which, E', is rigid with relation to the handles C, C', while the other, E, is yielding or spring-like in its construction, and, while formed integral with the handle C', is capable of a yielding lateral adjustment with relation to the opposite member E' to permit the head of the tool inserted in the tool-opening between the jaws to be firmly grasped by, and tightly impinged between, the said jaws.

For the purpose of adjustment of the member E with relation to the member E' of the tool-grasping jaws, the two members are bored centrally in the direction of the width of the body-portion of the wrench to receive a clamp-screw, D, which has a screw-threaded bearing in the fixed member E' of the tool-grasping jaws, and extends the smooth bore in the yielding member E of said jaws. This thumb-screw will preferably have a knurled head, 9, by means of which the same may be turned by the fingers to tighten the jaws, and has a shoulder, 10, to bear against the outer face of the yielding member E of the tool-grasping jaws. The opening for the clamp-screw in the yielding member E will be of slightly greater diameter than the diameter of the shank of said screw, to permit adjustment of said member E with relation to the member E' without binding.

In the drawings I have shown a wrench as having two tool-receiving openings of varying sizes, a portion of each opening being formed in adjacent sides of each jaw. These openings may be formed either by punching the main body of the wrench, prior to slitting the same longitudinally, or may be formed by cutting V-shaped notches in adjacent inner faces of said jaws after the wrench has been longitudinally slitted or divided.

In practice, the yielding member E of the

wrench will be sprung slightly outward from its engaging position with relation to the member E', and tempered in such position, to thereby permit a slight opening of this member with relation to the member E' by its own elasticity when the clamp-screw D is loosened to permit a tool to be removed or inserted between the jaws.

The construction herein described forms a very simple and effective tool-holding wrench, and by forming the yielding member E of the tool-grasping jaws integral with the handle C', and providing a single clamp-screw, as shown, the operation of inserting and securing the tool in place is greatly simplified in comparison with like implements employing separate tool-grasping members and a plurality of tightening-screws therefor; and, by my construction of tap-wrench, a tool can be fixedly secured between the jaws by very slight adjustment of the clamp-screw D, thus permitting the tool to be quickly inserted and secured in place, or removed therefrom, as desired.

Having thus described my invention, I claim—

1. As an article of manufacture, the improved tap-wrench herein described, it com-

prising a handle divided longitudinally and transversely as described, to form two resiliently-connected members having the oppositely-disposed tool-grasping V-notches on their inner adjacent faces to receive the head of a tool, and a clamp-screw connecting said members at one side of the tool-receiving notches for closing the same together, substantially as described and for the purpose specified.

2. In a tap-wrench, the two handles C, C', the fixed tool-grasping member E' intermediate thereto, in combination with the resilient member E integral with the handle C at one end, and separated from the member E' at the opposite end, the said members having oppositely-disposed tool-grasping notches formed in adjacent faces as described, and the clamp-screw D extended through and bearing against one member, and having a screw-threaded bearing in the other member, all constructed and arranged in the manner substantially as described and for the purpose set forth.

ALBERT H. KENT.

Witnesses:

FRED. J. DOLE,

FRANCIS H. RICHARDS.