April 15, 1924. 1,490,343

O. C. PIETSCH

WRENCH

Original Filed Oct. 7, 1921

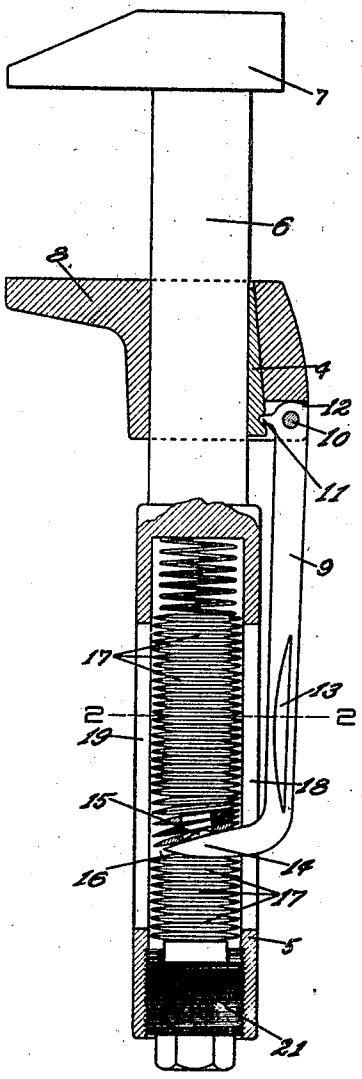
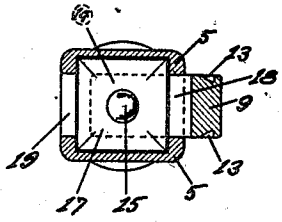


Fig. 1.

Fig. 2.



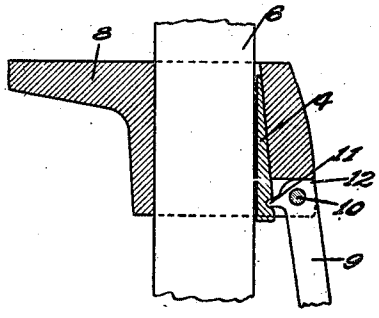


Fig. 3.

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UNITED STATES PATENT OFFICE.

OSCAR C. PIETSCH, OF HILLSBORO, ILLINOIS.

WRENCH.

Application filed October 7, 1921, Serial No. 505,994. Renewed September 14, 1923.

To all whom it may concern:

Be it known that I, OSCAR C. PIETSCH, a citizen of the United States, residing at Hillsboro, in the county of Montgomery and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches and the object is to provide an improved and novel construction of wrench in which the movable jaw can quickly and easily be slid to any position and there be rigidly locked in such position. The invention is more particularly an improvement over the wrench shown in the United States Patent #1,117,173, issued on Nov. 17th, 1914, the entire interest of which has been assigned to me. The invention is fully described in the following specification and is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is an elevation of the wrench, the greater portion of which is shown in section.

Fig. 2 is a detail sectional view on the line 2—2 in Fig. 1.

Fig. 3 is a detail sectional view showing a modified position of the wedge 4.

Referring to the drawing by reference numerals, 5 designates the handle of a wrench having a shank 6, a fixed end jaw 7 and a slidable jaw 8, the former of which is preferably welded on the shank after the latter has first been placed thereon.

The sliding jaw 8 is provided at its rear lower corner with a lever 9 which is pivoted as at 10. Said lever is provided with an integral tooth 11 which engages a notch in the wedge 4, and is further provided with a shoulder 12 which engages against the jaw 8 and limits the outward movement of the lower end of the lever, thus preventing the tooth 11 from coming far enough down to allow the wedge to slip out. The lower part of the lever 9 is provided with grooves 13 in its sides which provide a convenient grip, while its lower end is bent inward in an extension 14 having a lug 15 and having its outer end surface 16 formed as an arc from the center 10.

The handle of the wrench is hollowed out so that the opening therein is square in cross section (see Fig. 2), that it may receive a column of square washers 17. It is further provided with two slots 18 and 19, the former of which allows the extension 14 to slip in between the washers 17, and both of which permit dirt in the handle to escape and prevents its accumulation therein.

The washers 17 are preferably square in shape and are centrally perforated so as to allow the lug 15 to yieldingly retain the lever 9 in its inward position. They are further edged at each of their four sides, so that when one set of edges become worn they can be readily substituted by others. It will also be understood that the washers are interchangeable so that those most used and worn can be changed with others in the series. A coil spring 20 presses down on the washers, thus holding them yieldingly together and down against a plug 21 which is threaded in and closes the end of the handle.

When the lever is pulled out, as indicated in Fig. 3, the wedge 4 is pulled out of its seat far enough so that the jaw 8 can be easily slid up and down on the shank 6. When the desired position of the jaw is found then the lever is pushed in, the projection 14 locking in between the two washers which happen to be divided by it. This same movement forces the wedge 4 up, thus making the jaw 8 very rigid with the rest of the wrench.

It is understood that suitable modifications may be made in the form and structure of this invention if such modifications come within the spirit and scope of the appended claims. Having now therefore fully shown and described my invention, what I claim to be new and desire to protect by Letters Patent is;

1. A wrench consisting of a shank having a fixed jaw at one end and a hollow handle at the other end, said handle having a four sided longitudinal chamber therewithin, and an opening in one side of the handle, a column of square shaped edged washers slidably secured in said chamber and means for yieldingly holding them together, a lever pivotally connected at one end to the movable jaw and means at the other end of the lever for engagement between any two adjacent washers.

2. A wrench consisting of a shank having a fixed jaw at one end and a hollow handle at its other end, a column of edged washers slidably retained in said handle and means for yieldingly holding them together, means for preventing said washers from rotating, a lever pivotally connected at one end to the movable jaw, and being adapted at its other end to be secured in said column of washers.

3. A wrench having a fixed jaw at one end, a handle at the other end and a movable jaw slidable on the shank of the wrench, said handle having a longitudinally arranged multilateral chamber, a column of spring held washers slidably retained in said chamber, said washers each having a plurality of straight edges to correspond to the sides of the chamber, and a lever secured at one end to the movable jaw, the other end of said lever being securable in said column of washers.

4. A wrench consisting of a shank having a fixed jaw at one end and a hollow handle at the other end, a movable jaw slidable on the shank, a column of spring compressed washers in the handle, said handle having longitudinal slots in opposite sides thereof, a lever secured at one end to said movable jaw, the other end of said lever being engageable with said column of washers through one of said slots.

In testimony whereof I affix my signature.

OSCAR C. PIETSCH.