

(No Model.)

W. H. CARPENTER.
WRENCH.

No. 535,812.

Patented Mar. 19, 1895.

Fig. 1.

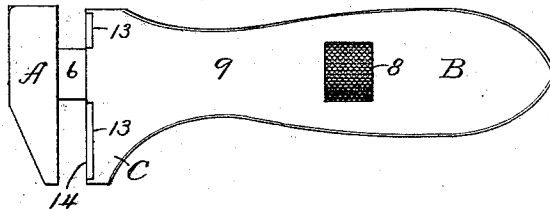


Fig. 2.

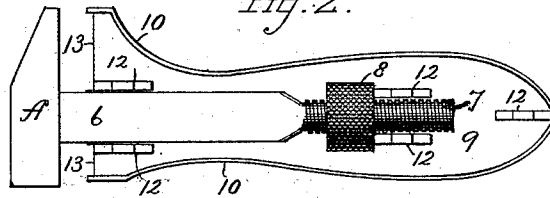


Fig. 3.

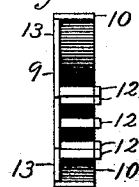


Fig. 4.

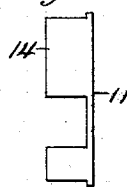
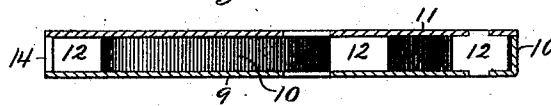


Fig. 5.



Witnesses
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SPECIFICATION forming part of Letters Patent No. 535,812, dated March 19, 1895.

Application filed October 9, 1894. Serial No. 525,375. (No model.)

To all whom it may concern:

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

My invention relates to improvements in wrenches of the class commonly called "monkey wrenches," and the objects of my improvements are simplicity and economy in construction and general efficiency of the article.

In the accompanying drawing—Figure 1 is a side elevation of my wrench. Fig. 2 is a like view of the same with the cap plate removed. Fig. 3 is an end view of the box portion of the handle and fixed jaw. Fig. 4 is an end view of the cap plate of the handle and jaw, and Fig. 5 is a central longitudinal section of the handle and jaw.

The general form of my wrench is old and my improvement resides in the particular construction of the handle portion from sheet metal whereby I reduce the cost of construction while at the same time I produce a wrench of superior strength.

The movable jaw A, wrench bar 6, threaded shank 7, and adjusting nut 8, may be of any ordinary construction. I form the handle B and fixed jaw C of sheet metal in two principal parts. One part is a box like portion struck up in dies to form one broad side 9 of the handle and jaw while the flange 10 forms the major part of the edge of the handle and jaw except at the inner face of the jaw. The other part is the plate or cap cut out of sheet metal in the proper form for the other broad side 11 of the handle and jaw, while one end is bent over at right angles to said broad side to form the face 14 of the fixed jaw. I make recesses or notches 13 in the jaw end of the broad side 9 and I notch the jaw face

14 to receive the wrench bar 6 while the length of said jaw face 14 is a little less than the full width of the broad side 11 as shown in Figs. 1 and 4. In putting the parts together the notched jaw face 14, fits into the recesses 13, on the companion part and makes a neat lock as shown in Fig. 1. I provide these two principal parts of the handle and jaw, with plate like studs 12, having shouldered tenons at each end, which tenons are received in suitable holes in the broad sides 9 and 11, the ends of said tenons being headed down to firmly secure the parts in place. I arrange two of these plate like studs at the jaw end where besides assisting in holding the parts 9 and 11 together, they serve as guides for the wrench bar 6 and at the same time their front edge abuts against the inside of the jaw face 12 to firmly support the same. The parts 9 and 11 have the usual opening within which the nut 8 is held, and I place two of the plate like studs adjacent to said nut where they serve to guide the threaded shank of the wrench bar. The other plate like stud is placed near the tip of the handle, all as best shown in Fig. 2.

I claim as my invention—

The herein described wrench consisting of the ordinary movable jaw, wrench bar, threaded shank and adjusting nut, and the fixed jaw and handle, consisting of the box like portion forming one broad side and both edges of said jaw and handle, the plate or cap forming the other broad side of said jaw and handle, and jaw face, and the plate like studs for holding, supporting and guiding the parts, substantially as described and for the purpose specified.

WILLIAM H. CARPENTER.

Witnesses:

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