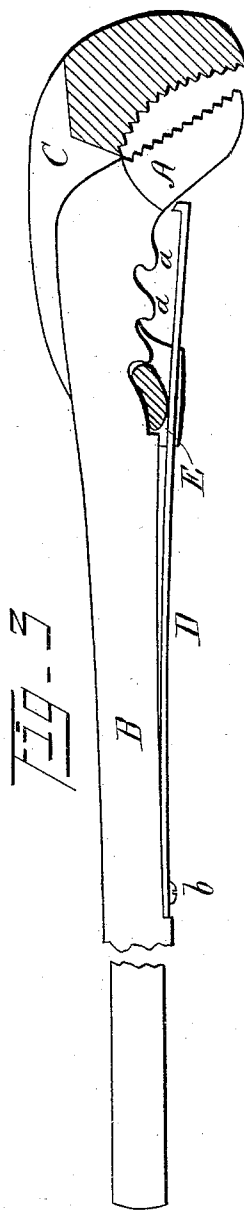
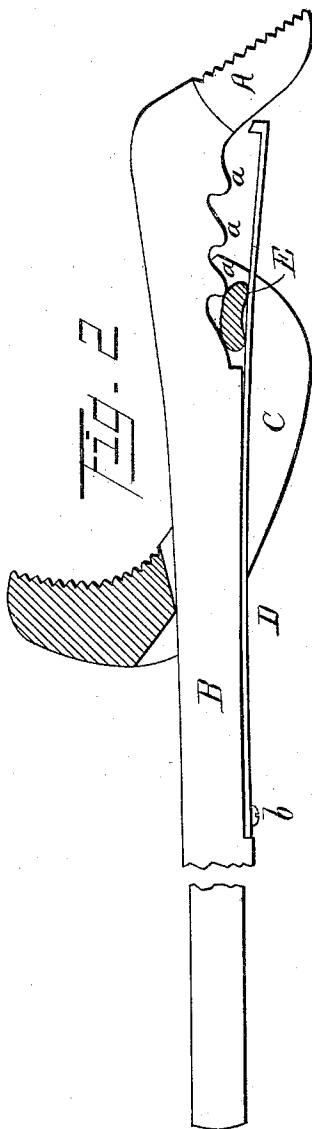
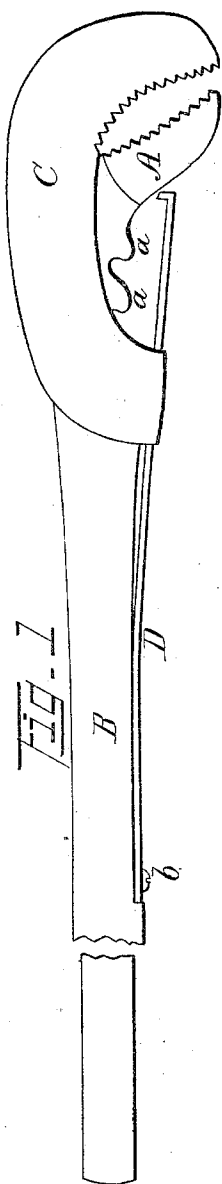


(No Model.)

M. J. WILSON.
WRENCH.

No. 463,263.

Patented Nov. 17, 1891.



Witnesses.
John Enright
W. A. Biddle

Inventor.
M. J. Wilson
W. H. Burdick atty.

UNITED STATES PATENT OFFICE.

MILFORD J. WILSON, OF PAINESVILLE, OHIO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 463,263, dated November 17, 1891.

Application filed March 18, 1891. Serial No. 385,537. (No model.)

To all whom it may concern:

Be it known that I, MILFORD J. WILSON, a citizen of the United States, residing at Painesville, in the county of Lake and State of Ohio, have invented certain new Improvements in Wrenches, of which the following is a full, clear, and complete description.

The nature of my improvements relates to the construction and arrangement of the shank and girt in connection with the movable jaw and spring of the wrench, by means of which the opening and closing of the wrench is facilitated, as hereinafter fully explained and set forth.

That the invention may be seen and fully understood by others familiar with the art, reference will be had to the following specification and annexed drawings, forming a part thereof, in which—

Figure 1 is a view of the wrench closed with the movable jaw intact. Fig. 2 shows the wrench open with the movable jaw in longitudinal vertical section; and Fig. 3 represents the wrench closed, showing the movable jaw in longitudinal vertical section.

Like letters of reference designate like parts in the specification and drawings.

My improvement relates, principally, as hereinbefore stated, to the shank and girt in connection with the spring and movable jaw.

In order to better set forth and show the working of the improvement, I will briefly describe the entire wrench.

The stationary jaw A is an integral part of the shank B, and has teeth *a a a*, arranged thereon substantially as shown. The shank of the stationary jaw passes through an opening in the movable jaw C, and is held in position relative to said jaw by the resiliency of the spring D, which bears on the girt E, as shown in Figs. 2 and 3, the opposite end of the spring D being rigidly attached to the shank at *b*. The girt E is arranged and secured in the heel of the movable jaw C, and is so located and formed, as shown in Figs. 2 and 3, that when the jaws of the wrench are in position for use, Figs. 1 and 3, the spring D will bear on the girt E; but when thrown back or open, Fig. 2, for adjusting to the va-

rious sizes the girt, owing to its peculiar shape and location, and particularly to the form of the shank, is relieved of the pressure of the spring, thus making the closing of the movable jaw much easier than it can be done in the ordinary manner in this class of wrenches. In the wrench of this kind, as formed, the spring D is necessarily very stiff and heavy, so that when the movable jaw is thrown back, as shown in Fig. 2, a great deal of force is necessary to overcome the resiliency of the spring in adjusting the wrench. In practical use in large wrenches it is found almost impossible to adjust the wrench with the hands alone, it being necessary to use the foot and hands or some other greater force for adjusting the wrench—that is, for instance, the jaw being opened to its full capacity, and it is required to move back the movable jaw to embrace a smaller object, the girt being in the teeth or notches, with the force of the spring bearing thereon, renders it very difficult, and much force is required in a large ordinary wrench to raise the movable jaw, so that the girt will pass over the teeth, for the purpose stated.

The girt E in my improved wrench being, as described, relieved from the pressure of the spring D, permits of the easy adjustment of the wrench to the various sizes.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

In a wrench, an oblong girt E, arranged in the heel of the movable jaw, in combination with the shank B, and spring D, the edge of said shank being on a line, or nearly so, with the top of the girt E in relation to the teeth, whereby the relative position of the girt and shank is such that said girt may be relieved of the pressure of the spring, permitting the easy adjustment of the wrench to the various sizes, substantially as set forth.

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

MILFORD J. WILSON.

Witnesses:

E. T. LUFKIN,
W. H. BURRIDGE.