J. H. SNYDER.
WRENCH.

No. 193,566. Patented July 24, 1877.

Fig. 1.

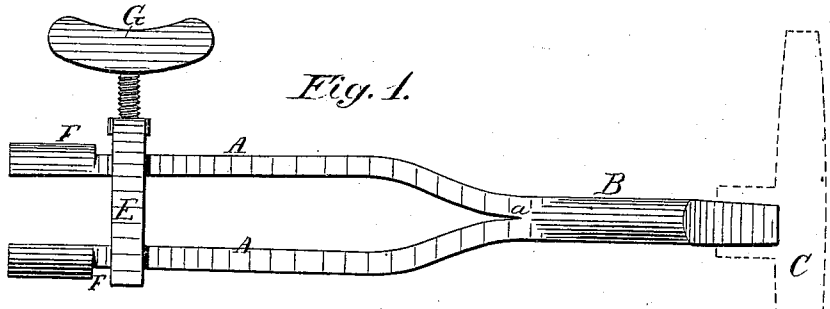

Fig. 3.

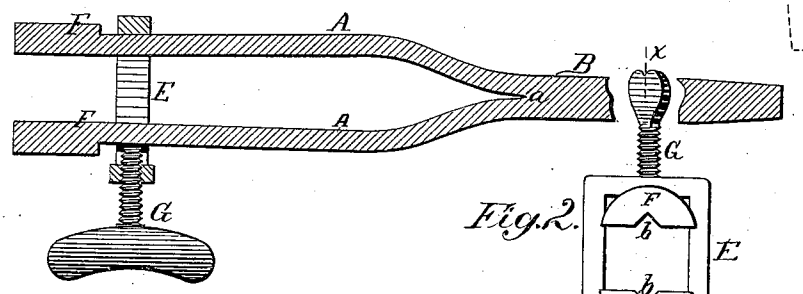

Fig. 2.

Attest:
E. E. Court
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UNITED STATES PATENT OFFICE.

JOHN H. SNYDER, OF EAU CLAIRE, WISCONSIN.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **193,566**, dated July 24, 1877; application filed March 20, 1877.

To all whom it may concern:

Be it known that I, JOHN H. SNYDER, of Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a side elevation. Fig. 2 is an end view. Fig. 3 is a cross-section on the line indicated by *x x* in Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to wrenches; and it consists in the construction and arrangement of parts hereinafter more fully shown and specified.

In the drawing, A A are the two arms or sides of my improved wrench. They are joined together at *a* so as to form the base or stock B, which is squared off at the bottom, so as to enable the removable handle C to be conveniently adjusted.

The ends of arms A A are shaped so as to form the head F, the inside of which and of arms A is squared off, as shown at *b*, Fig. 2, so as to readily clasp the nut which is to be operated upon.

The manner in which I operate the arms A A is illustrated in Figs. 1, 2, and 3, where E is a clasp or sleeve, which is slid upon the arms until it abuts upon the head F. This sleeve has a thumb-screw, G, which operates against one of the arms A, thus forcing it against the other as far as desired.

The arms A A must have sufficient elasticity to spring apart automatically when the pressure of thumb-screw G is removed.

From the foregoing description the operation and advantages of my improved wrench will be readily understood. Its construction is simple and cheap, and it can be used in many different ways and for a multitude of purposes—for instance, as a bit-lengthener. It can also be conveniently used as a handle for various kinds of tools.

It may be operated either by the removable handle C, hereinbefore mentioned, or by means of a brace.

An important advantage of my improved wrench is this—that the clasp E, being arranged to slide upon the arms A A, the capacity of the wrench is not limited to nuts small enough to be inserted between the jaws when the clasp rests against the head F. When larger nuts are to be operated upon, it is only necessary to slide the clasp down toward the stock B, when the jaws may be spread sufficiently to receive nuts of a larger size.

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

The combination of arms A A, uniting at *a*, so as to form the stock or base B, with the sliding adjustable clasp or sleeve E, having thumb-screw G, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN H. SNYDER.

Witnesses:

TERENCE DEVITT,

EDWARD F. BARRETT.