Nelson Warren and J. C Stock.

No. 121,027. Wrench. Patented Nov. 14, 1871.

Fig. 1

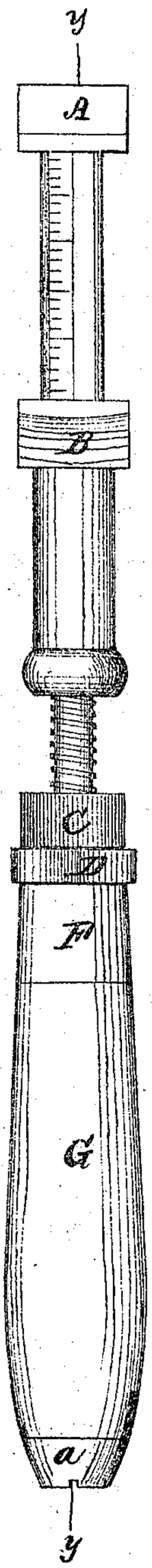


Fig 2.

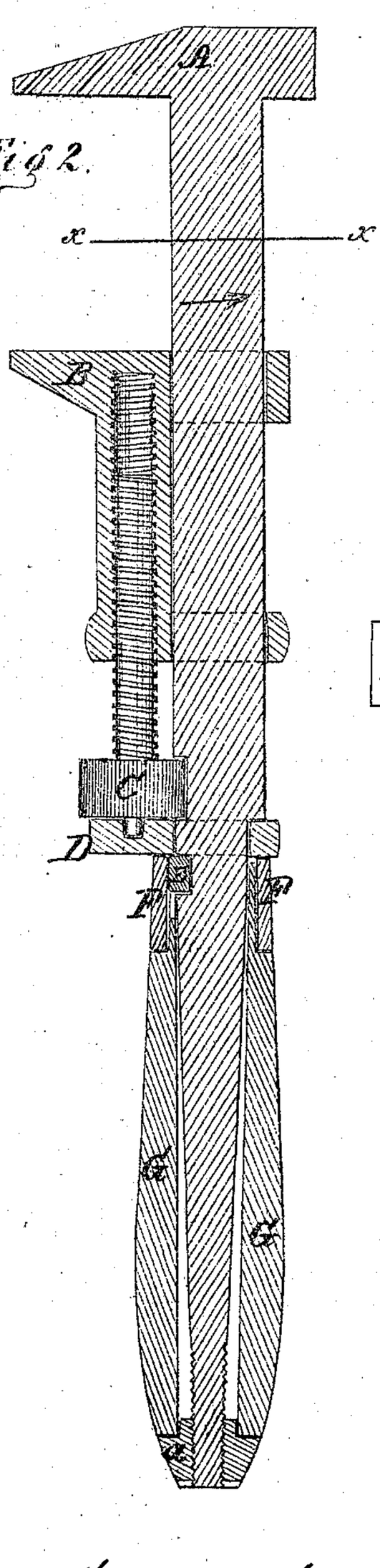
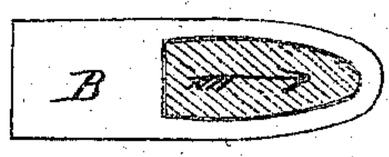


Fig 3.



Witnesses.
H. J. Arentz
John Tyler

Warren & Stock } Inventors.
by A. C. W. Stine & Co
their Attorneys.

UNITED STATES PATENT OFFICE.

NELSON WARREN AND JAMES C. STOCK, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 121,027, dated November 14, 1871; antedated October 28, 1871.

To all whom it may concern:

Be it known that we, NELSON WARREN and JAMES C. STOCK, of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful improvements in Wrenches; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making a part of this application.

Our invention has for its object to produce a wrench known as a monkey-wrench, which shall possess greater strength without additional weight, which shall be easily put together, and answer the purposes of calipers. It consists in securing the movable parts in position in such manner as to relieve the handle of all strain and forcing it in a line coincident with the axis of the stem, all as will be presently more fully explained.

To enable those skilled to make and use our invention, we will proceed to describe the construction and operation of the same, referring by letters to the accompanying drawing, in which—

Figure 1 is a front view; Fig. 2, a vertical section at line *y y*, Fig. 1; and Fig. 3 is a transverse section at *x x*, Fig. 2.

Similar letters of reference indicate like parts in the several views.

A and B are the jaws, the stationary one A provided with a stem running a sufficient length to penetrate the handle, and provided at its lower extremity with a screw-thread to receive the retaining-nut *a*. The movable jaw B is made in the ordinary manner, provided with the internal thread for the reception of the working-screw C. It is well known that great strain is exerted against the movable jaw, and, through its screw, the retaining-plate and handle. To avoid this and throw the strain to the center of the stem in a line at right angles to the face of the jaw is the object of our invention. The teat of the screw C rests in a suitable socket or seat provided in the retaining-plate or ring D, which is secured in place by a small block, E, dropped into a groove cut out of the stem. A ferrule, F, is then slipped over said block to keep it in place, and the wood handle G is slid on the stem, up against and under the ferrule, and secured by the nut *a*, so that it will be seen that all strain is directly against the block E, and from it thrown in a line coincident with the vertical center of the stem. It is therefore evident that any wear that takes place is all upon the block E and its seat, and not upon the ferrule, so that the defect may be economically remedied by simply substituting a new block.

Having described the construction and advantages of our invention, what we claim as new, and desire to secure by Letters Patent, is—

The plate D, block E, and ferrule F, constructed, arranged, and secured in position substantially in the manner and for the purposes shown and described.

Witness our hands and seals to the foregoing specification this 22d day of February, A. D. 1871.

NELSON WARREN. [L. S.]
JAMES C. STOCK. [L. S.]

Witnesses:
E. B. FRAZER,
THOS. G. LOWE

(100)