

D. Wilcox.

Wrench.

N^o 87,531.

Patented Mar. 2, 1869.

Fig. 1.

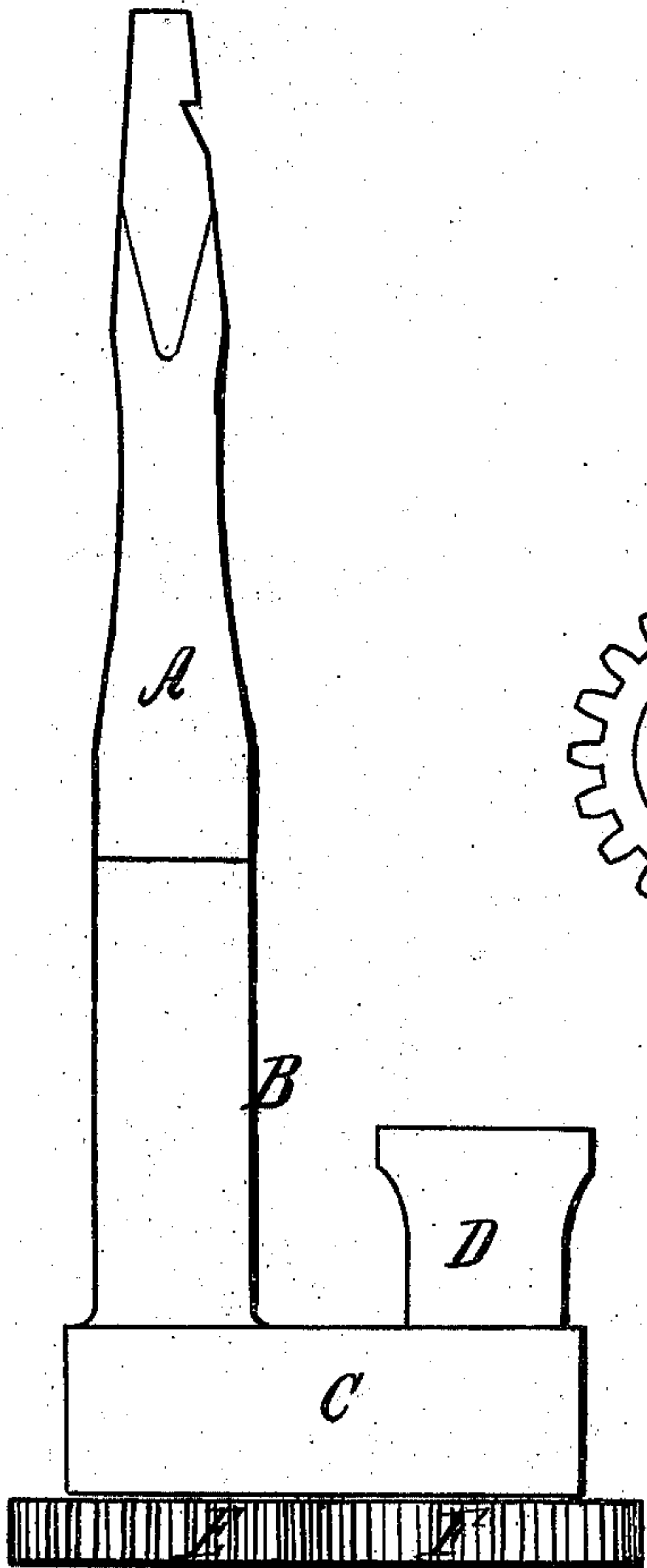


Fig. 2.

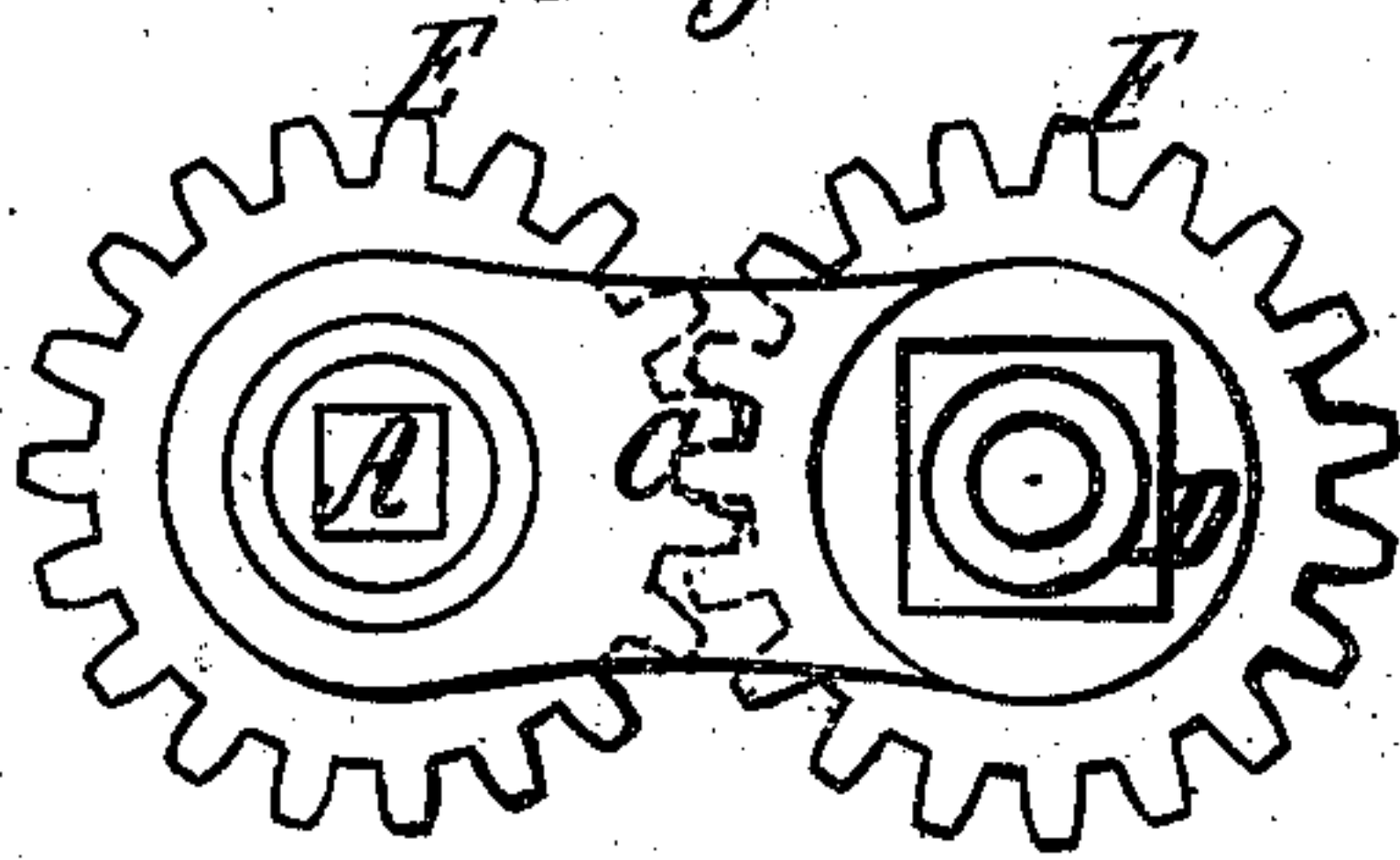
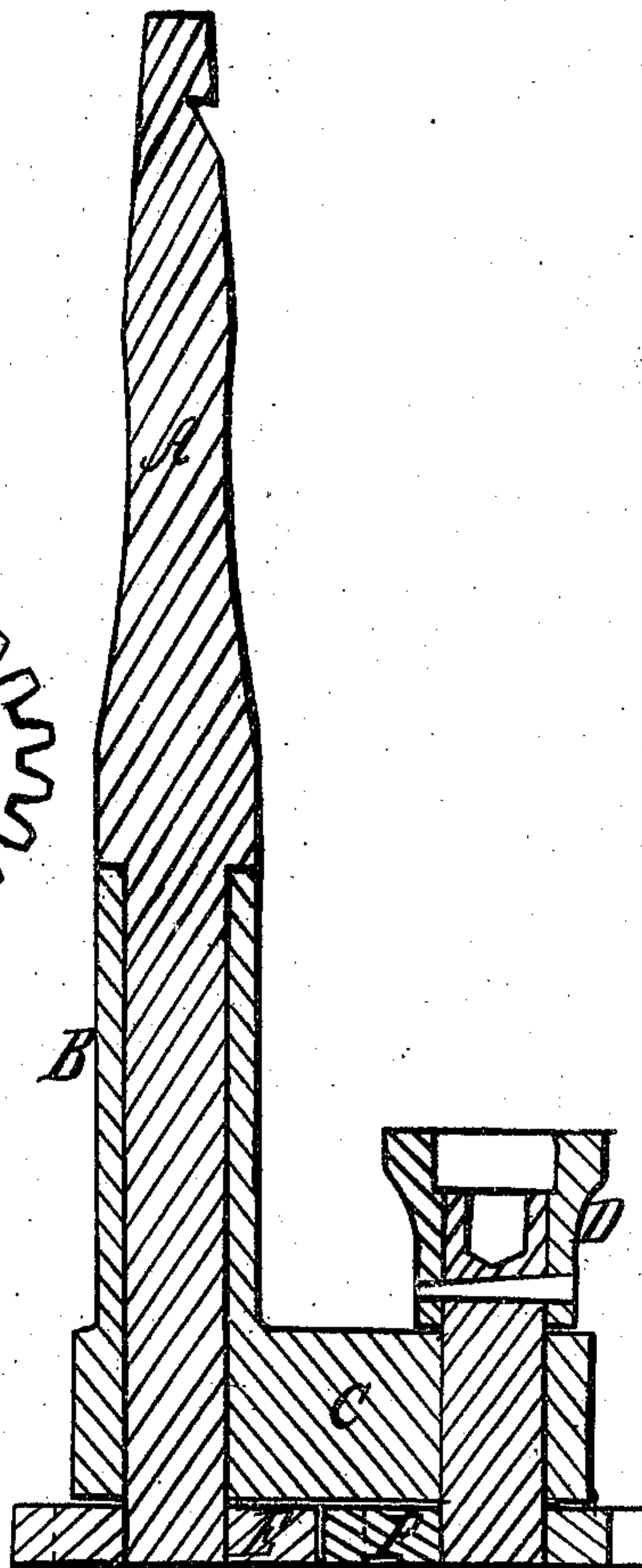


Fig. 3.



Witnesses:

A. J. Tibbitts
J. H. Shumway

Inventor,

Darius Wilcox

By his Attorney.

Thos. E. Earle

UNITED STATES PATENT OFFICE.

DARIUS WILCOX, OF ANSONIA, CONNECTICUT, ASSIGNOR TO HIMSELF AND
EDWARD A. JOHNSON, OF SAME PLACE.

IMPROVEMENT IN WRENCH FOR BIT-BRACES.

Specification forming part of Letters Patent No. **87,531**, dated March 2, 1869.

To all whom it may concern:

Be it known that I, DARIUS WILCOX, of Ansonia, in the county of New Haven and State of Connecticut, have invented a new Improvement in Wrench for Bit-Brace; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a top view, and in Fig. 3 a vertical central section.

This invention relates especially to an improved instrument for turning nuts or bolts in the manufacture of carriage-wheels—that is to say, the wheel is placed upon the frame, and while on the frame it is necessary to turn the bolts upon the under side at the hub. This is either done at great inconvenience or the wheel must be turned over at a greater inconvenience.

The object of my invention is the construction of an instrument which may be applied to the nut or bolt-head and turned from above the wheel.

To this end the invention consists in the arrangement of a socket-wrench in a head, so as to revolve freely therein, and combined with a spindle of sufficient length to extend above the socket, the spindle geared to the socket, so that by turning the spindle the socket revolves.

To enable others to construct and use my improvement, I will fully describe the same as illustrated in the accompanying drawings.

A is a spindle, by preference fitted so as to be secured into a common bit-brace, and has upon its lower end a sleeve, B, fixed to a cross-head, C, the spindle passing through the sleeve B and head C, as seen in Fig. 3.

In the said head, and at a suitable distance from the spindle, is arranged a socket, D, its cavity in the upper end of the form of the nut or bolt-head to be turned. The said socket extends down through the head C, and the spindle and socket geared together by toothed wheels E F, so that by the turning of the spindle the wrench or socket is caused to revolve.

To use this instrument in the turning of the bolt or nut, set the instrument into a brace in the usual manner for inserting bits. Then place the lower end of the instrument through between the spokes, placing the socket upon the nut or bolt-head, lifting sufficiently to keep the socket on the nut. Then turning the brace in the usual manner the socket will revolve and drive the nut or bolt.

I have here represented the axis of the spindle A and socket D as parallel to each other. It will be readily seen that this condition may be varied, and the axis of the socket inclined or turned to or from the spindle, it being only necessary to change the form of the gears and bearing for the socket in accordance with the desired position.

Thus constructed this invention is applicable to many uses other than that specially named.

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

The herein-described wrench, consisting of the spindle A and socket D, arranged in the head C so that the said socket may be operated by turning the spindle, substantially in the manner herein set forth.

DARIUS WILCOX.

Witnesses:

A. J. TIBBITS,
J. H. SHUMWAY.