

(No Model.)

R. H. WOODBURY.
NUT AND PIPE WRENCH.

No. 540,567.

Patented June 4, 1895.

Fig. 1.

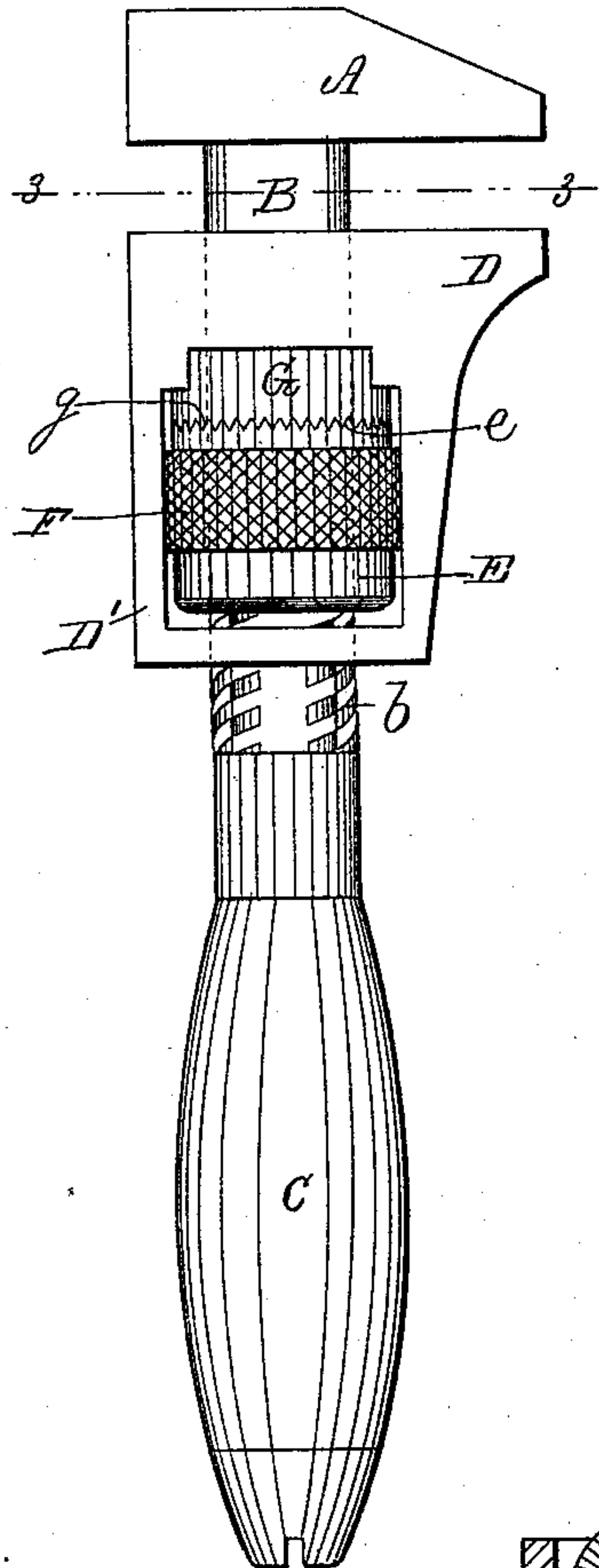


Fig. 2.

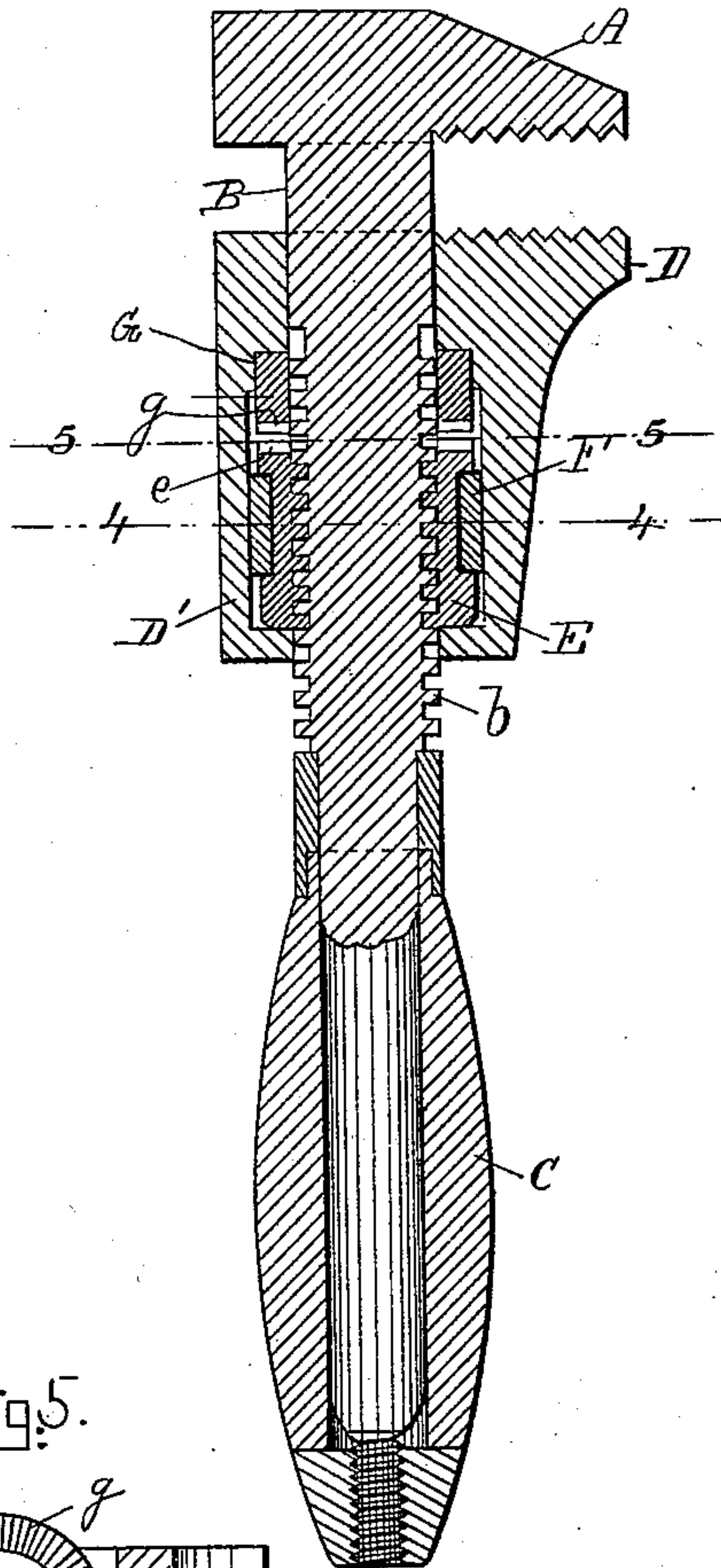


Fig. 5.

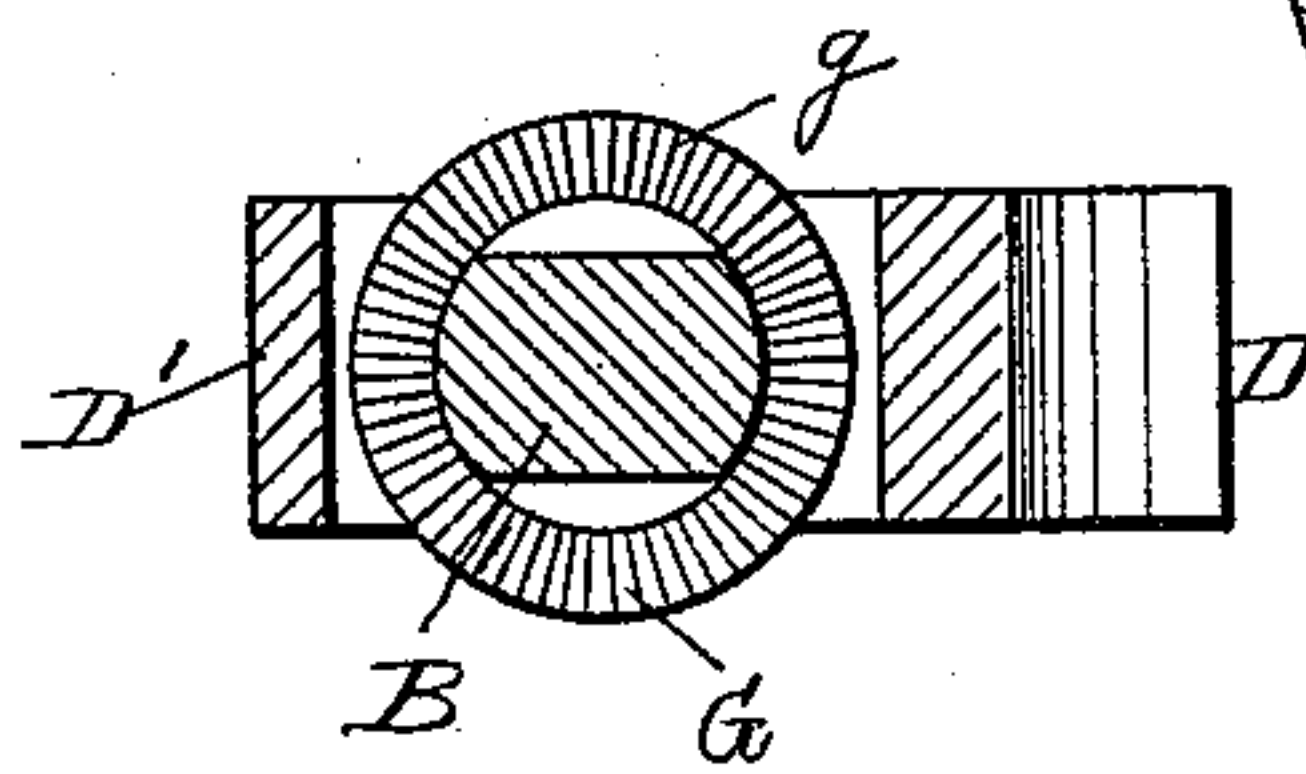


Fig. 3.

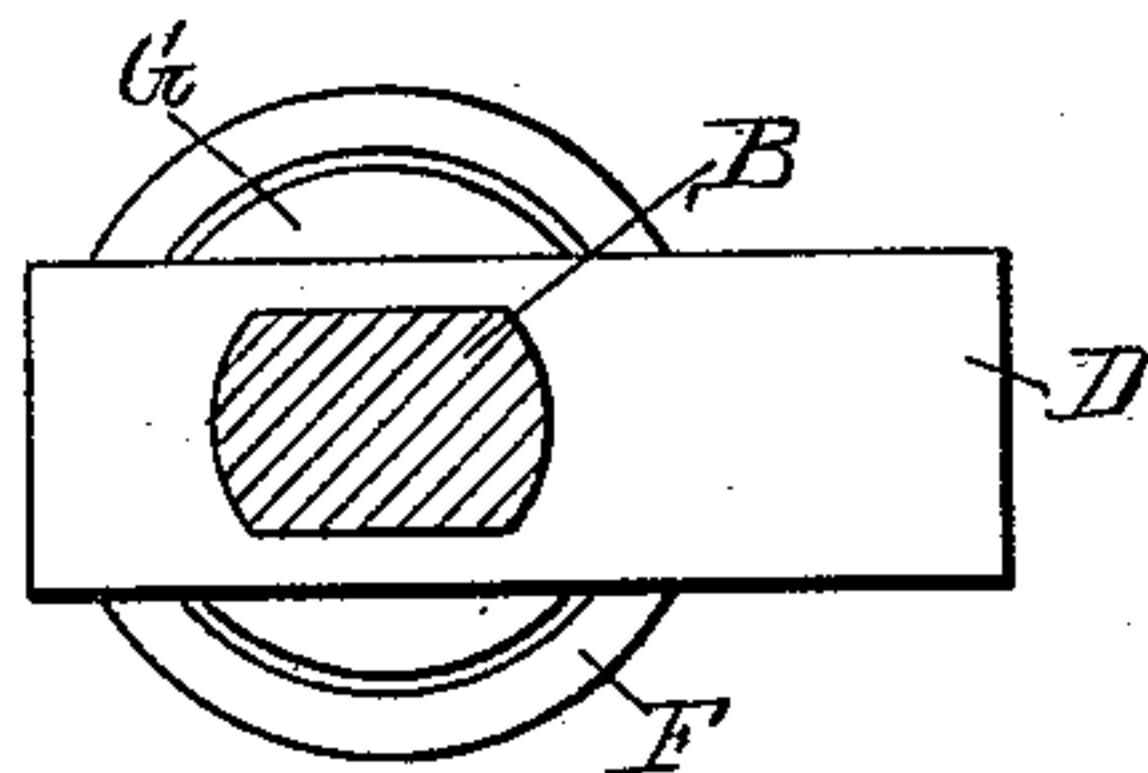
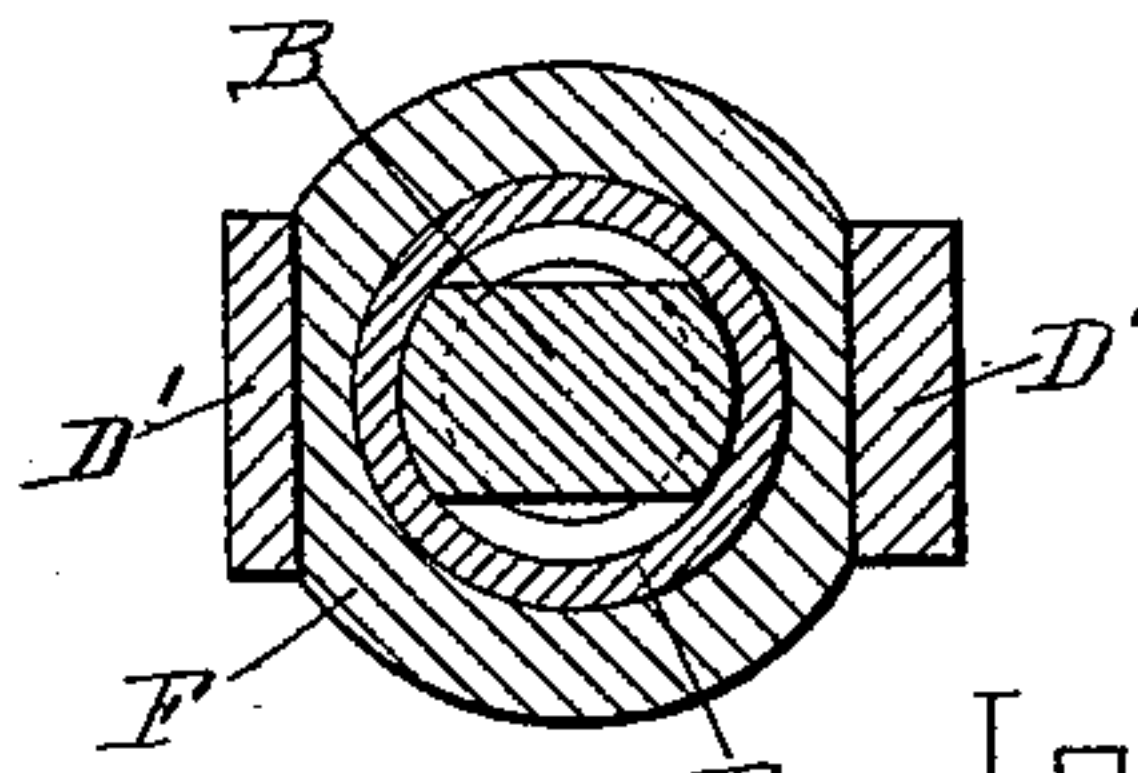


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

RUFUS H. WOODBURY, OF BEVERLY, MASSACHUSETTS.

NUT AND PIPE WRENCH.

SPECIFICATION forming part of Letters Patent No. 540,567, dated June 4, 1895.

Application filed October 12, 1894. Serial No. 525,668. (No model.)

To all whom it may concern:

Be it known that I, RUFUS H. WOODBURY, a citizen of the United States, and a resident of Beverly, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Nut and Pipe Wrenches, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in nut and pipe wrenches, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the improved wrench, showing its jaws locked. Fig. 2 represents a longitudinal section showing the movable jaw unlocked from the stationary jaw. Fig. 3 represents a cross-section on the line 3 3, shown in Fig. 1. Fig. 4 represents a cross-section on the line 4 4, shown in Fig. 2; and Fig. 5 represents a cross-section on the line 5 5, shown in Fig. 2.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

A represents the upper stationary jaw, having a downwardly projecting shank B preferably provided with a wooden handle C as shown in Figs. 1 and 2. The shank B is flattened in cross section as shown in the drawings and on it is longitudinally adjustable the movable jaw D, having a laterally perforated downwardly extending frame D', the lower end of which is likewise guided on the flattened shank B, as shown.

The shank B is provided with an external quick screw thread *b*, which works in a longitudinally adjustable nut E, provided on its exterior with an annular groove, in which is loosely fitted the ring F which projects slightly outside of the nut E and serves as a means for manipulating the movable jaw D to and from the stationary jaw A in adjusting the wrench, according to the size of the object to be held between its jaws. The ring F is flattened on two opposite sides where it bears against the inside of the hollow frame D' so as to prevent its turning around its axis, as fully shown in Fig. 4.

The upper end of the nut E is provided with an annular serrated face *e* adapted to interlock with a similar annular serrated face *g* on a block G secured to or made in one piece with the underside of the movable jaw D as fully shown in Figs. 1, 2 and 5.

The operation is as follows: After adjusting the movable jaw in the desired position relative to the stationary jaw, and grasping an object between them, the pressure exerted between the jaws causes the serrated surfaces *g* and *e* to interlock by which the movable jaw is firmly secured to the shank B.

After removing the wrench from the object, if it is desired to adjust the movable jaw farther toward the stationary jaw, it is only necessary to push upward on the movable jaw, or its frame D', causing the serrated face *g* to be unlocked from the serrated face *e* on the nut E, and permitting the movable jaw and its perforated frame to be moved upward on the shank B as far as desired, and as soon as the operator ceases to move the jaw D upward, its serrated face *g* will be interlocked with the serrated face *e* on the nut E causing the jaws to be locked together at the proper distance apart. If it is desired to move the jaw D away from the jaw A, it is only necessary to first slightly raise the movable jaw sufficiently to disengage the serrated face *g* from the serrated face *e* on the nut E, after which the said jaw D may be moved downward on the shank B by taking hold of the ring F and pulling it downward. During the adjustment of the movable jaw, the nut E is caused to rotate around the screw threaded shank on account of the quick screw thread on the latter.

The jaws A, D, may be smooth or serrated, according to the purpose for which the wrench is used, without departing from the essence of my invention.

What I wish to secure by Letters Patent and claim is—

The herein described wrench, consisting of a stationary jaw A, having a screw threaded shank B, and a movable jaw D, having a hollow frame D' adjustable on said shank combined with a longitudinally adjustable nut E,

surrounding said shank and having a serrated face *e*, adapted to interlock with a serrated face *g* on the underside of the movable jaw, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of

two subscribing witnesses, on this 25th day of September, A. D. 1894.

RUFUS H. WOODBURY.

Witnesses:

ALBAN ANDRÉN,

NETTIE F. WOODBURY.