

(No Model.)

G. F. NEWELL.  
PIPE WRENCH.

No. 411,872.

Patented Oct. 1, 1889.

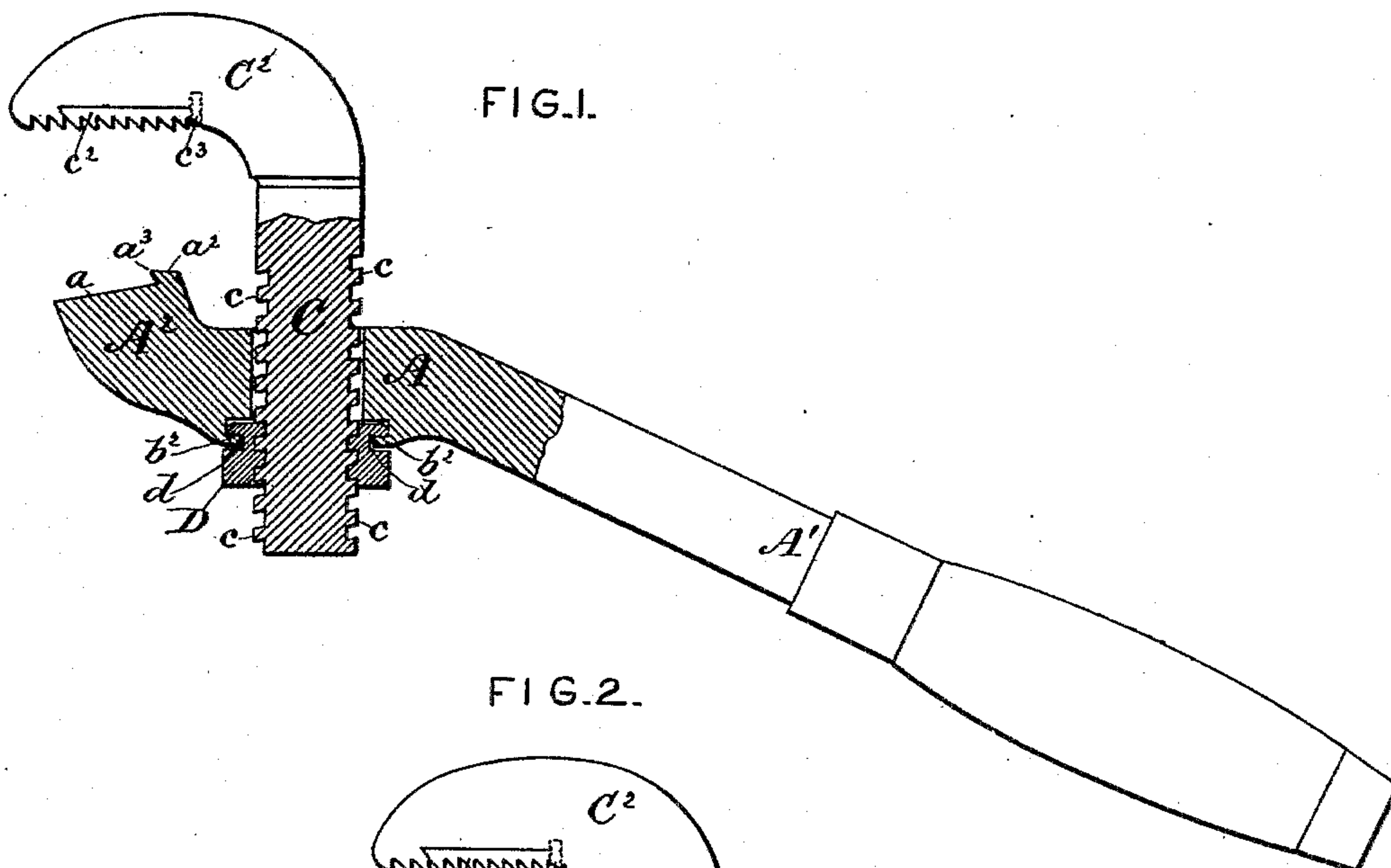


FIG. 2.

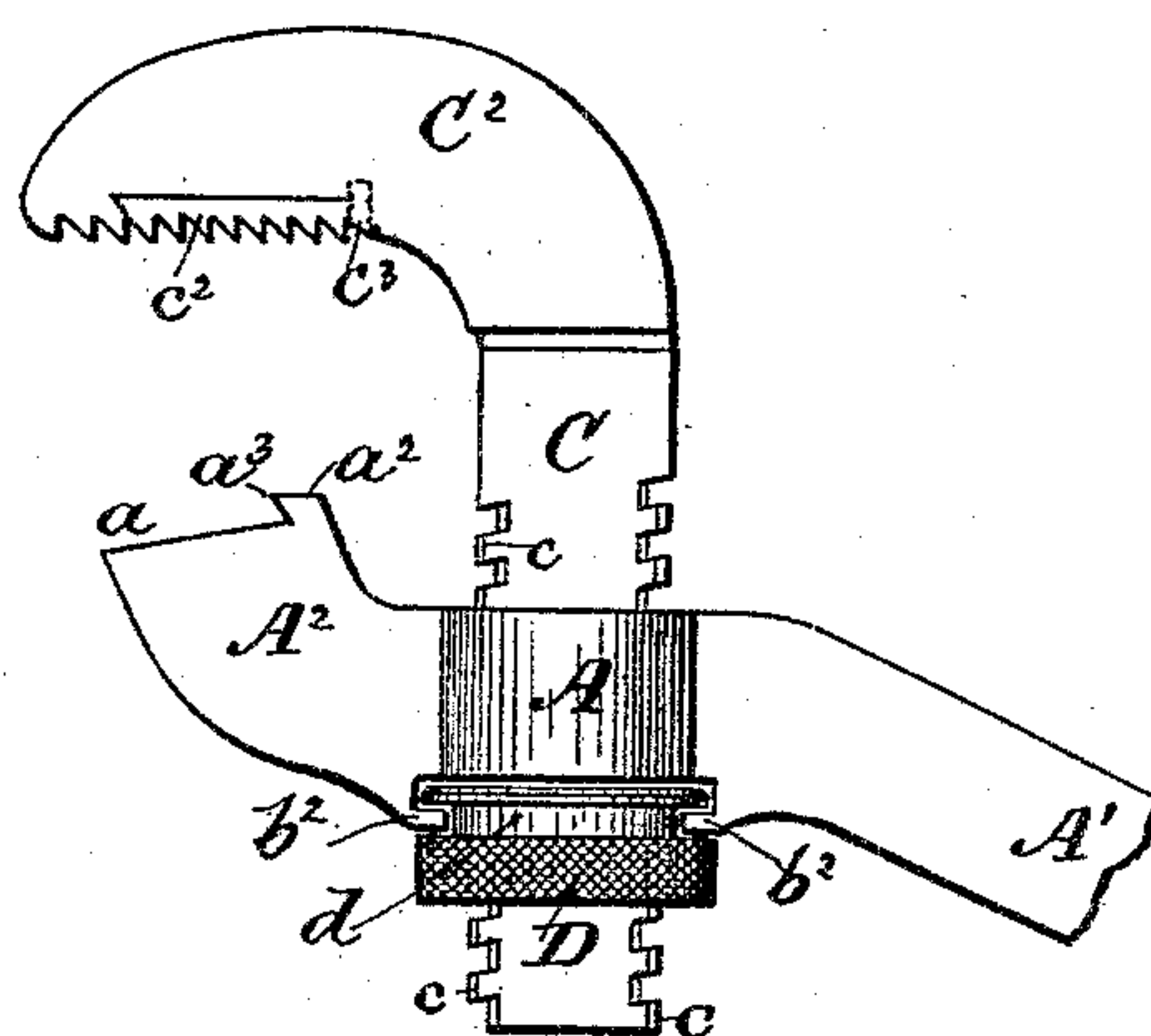
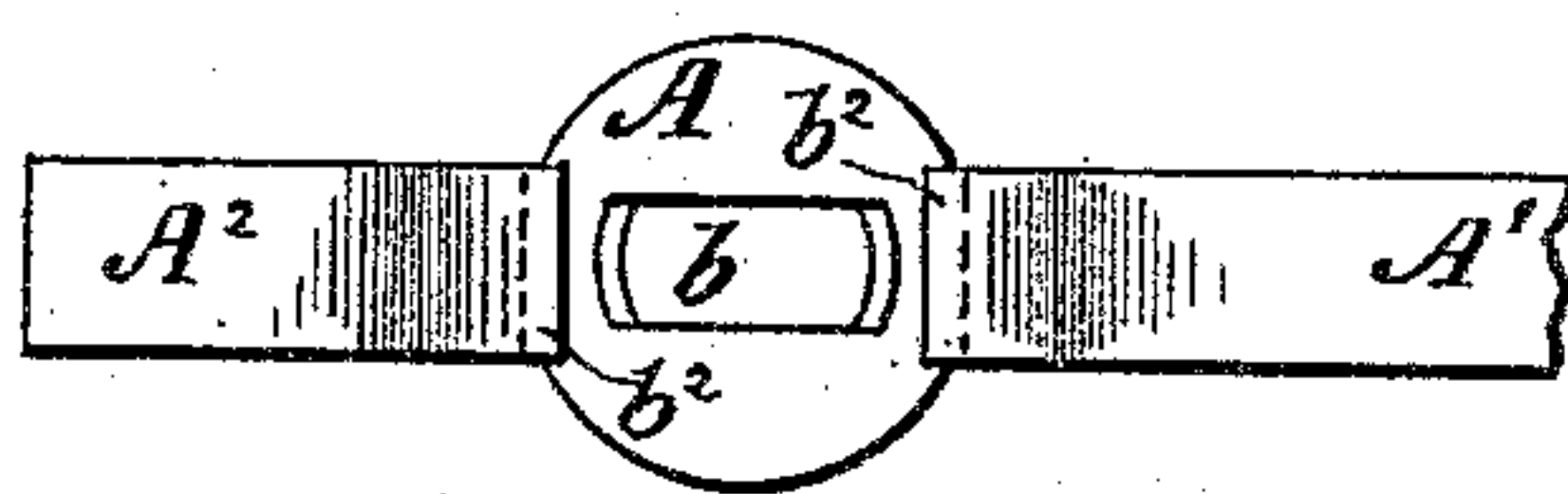


FIG. 3.



ATTEST -

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# UNITED STATES PATENT OFFICE.

GEORGE F. NEWELL, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO STILES FROST, OF SAME PLACE, AND F. L. FERGUSON, OF BYFIELD, MASSACHUSETTS.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 411,872, dated October 1, 1889.

Application filed January 21, 1889. Serial No. 297,006. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. NEWELL, a citizen of the United States of America, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to an improvement in diagonal pipe-wrenches peculiarly adapted to gripping and turning cylindrical objects, such as pipes and round rods; and the invention consists in the construction and arrangement of parts to facilitate the gripping of small pipes and rods between the jaws and the retention of the operating-nut, as hereinafter described, and specifically set forth in the claims.

20 In the accompanying drawings, Figure 1 is a side view, partly in section, of a pipe-wrench constructed in accordance with my invention. Fig. 2 is a side view of the main portion of the same. Fig. 3 is a bottom view of the stationary jaw.

25 In said drawings, A represents the body or perforated portion of a bent lever having at one end the handle A' and at the opposite end the stationary jaw A<sup>2</sup> of the wrench. 30 The body A has a central perforation b at right angles to said body for the passage of the stem C of the movable jaw C<sup>2</sup> of the wrench. This stem is quadrangular, but has screw-threads c upon its two segmental sides to permit its adjustability relatively to the jaw A<sup>2</sup>. To permit said adjustability, a nut D is placed upon the stem C, and to retain it connected to the body A a peripheral groove d is made in said nut, and two hooked lips b<sup>2</sup> 35 are formed in the outer face of the body A, of suitable thickness to freely enter the groove d and permit the nut to be rotated, but prevent it from becoming accidentally separated from the body of the wrench. The movable jaw

C<sup>2</sup> has its inner face provided with a serrated plate c<sup>2</sup>, dovetailed therein and retained by a locking-screw c<sup>3</sup>, entering one of its edges and screwed into said jaw. 45

The face a of the stationary jaw A<sup>2</sup> is beveled, so as to form an acute angle with the serrated face of the jaw C<sup>2</sup>, and the inner end of said beveled face is provided with a flat-face tooth a<sup>2</sup>, the gripping-edge a<sup>3</sup> of which is beveled, so as to overhang the face a of the jaw. Said tooth a<sup>2</sup> not only forms an abutment to prevent the inwardly sliding and crushing of any thin pipe upon which the wrench may be used, but the acute overhanging edge a<sup>3</sup> of the tooth readily engages with the surface of said pipe, and, in connection with the serrated plate c<sup>2</sup>, firmly grips the pipe and insures its revolution when the wrench is rotated. 50 55 60

Having now fully described my invention, I claim— 65

1. In a pipe-wrench, the combination of a lever having the body A perforated, and hooked lips b<sup>2</sup> on the sides of the perforation, and a toothed jaw at one end, with the nut D, having a peripheral groove, and the movable jaw having its stem screw-threaded and inserted through the perforation of the body of the lever, substantially as described. 70

2. In a pipe-wrench, the combination of a lever having the body A perforated, and hooked lips b<sup>2</sup> on the sides of the perforation, and a jaw at one end, having a beveled face a and a tooth the edge of which overhangs said beveled face, with the circumferentially-grooved nut D and the serrated movable jaw having its stem passing through the lever, substantially as shown and described. 75 80

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

GEORGE F. NEWELL.

Witnesses:

CHAS. W. LAVERS,  
STILES FROST.