

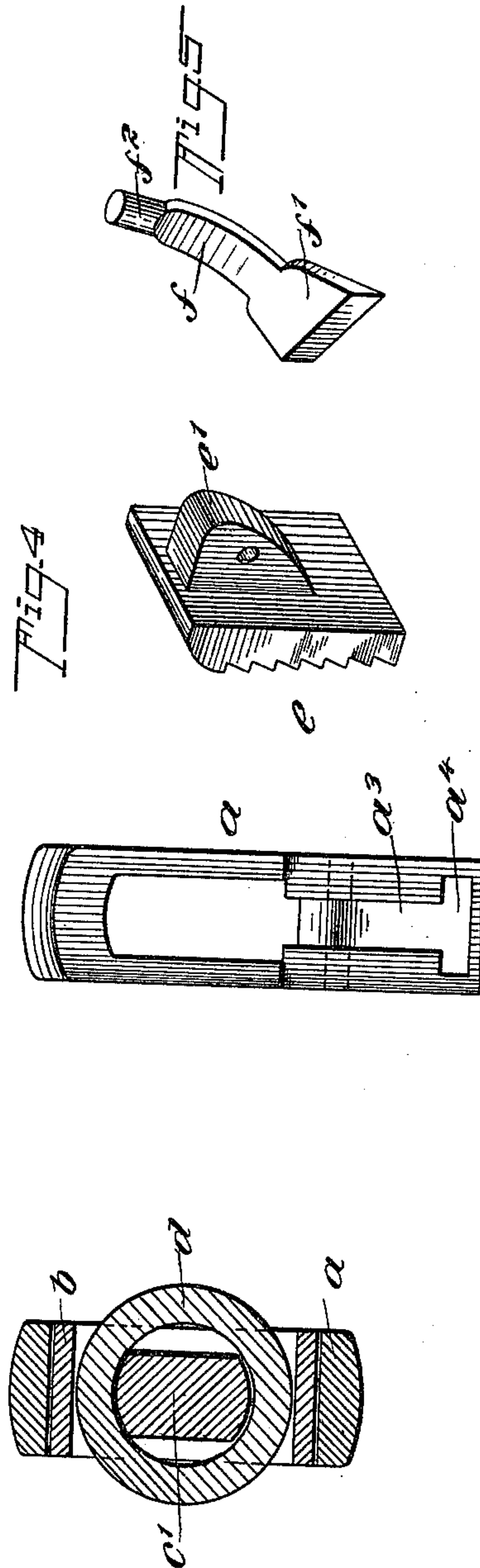
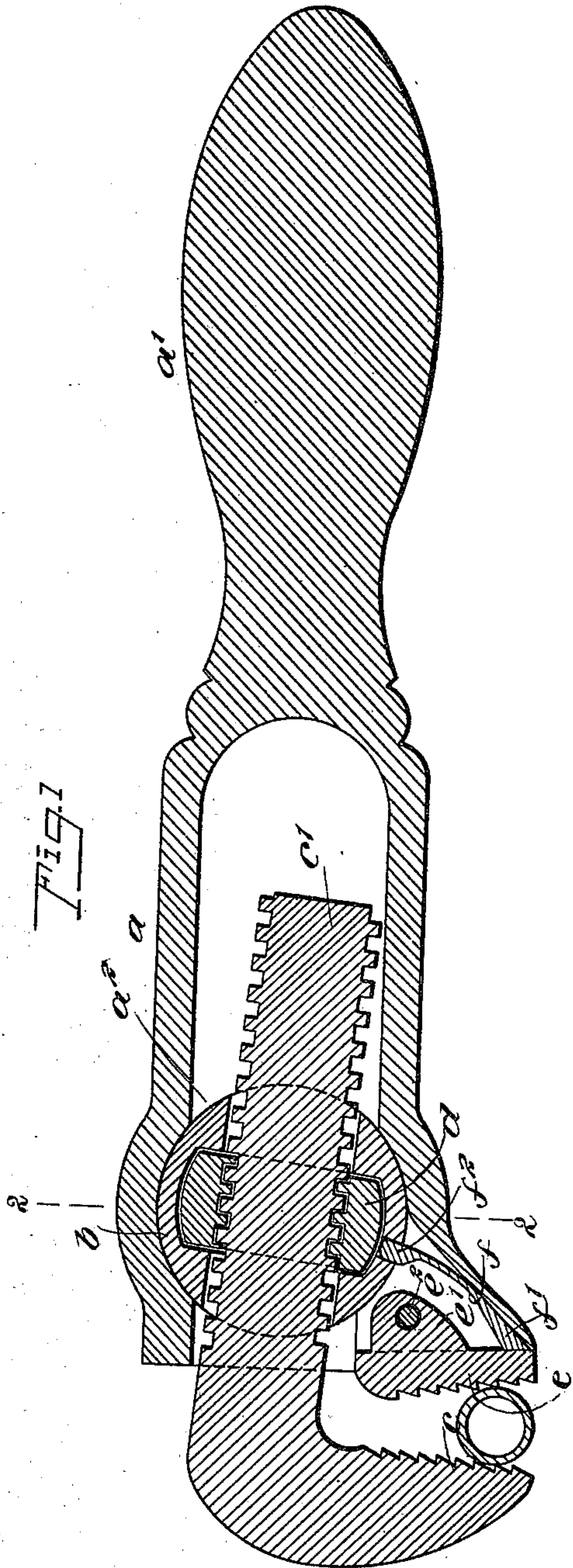
No. 669,483.

C. M. INGERSOLL.
PIPE WRENCH.

Patented Mar. 5, 1901.

(Application filed Aug. 14, 1900.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

CHARLES MYRON INGERSOLL, OF SUMMITHILL, PENNSYLVANIA, ASSIGNOR
OF ONE-HALF TO THOMAS BARR, OF SAME PLACE.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 669,483, dated March 5, 1901.

Application filed August 14, 1900. Serial No. 26,875. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MYRON INGERSOLL, a citizen of the United States, and a resident of Summithill, in the county of Carbon and State of Pennsylvania, have invented a new and Improved Pipe-Wrench, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a pipe-wrench which will engage a pipe at opposite points and exert an equal strain thereon to prevent crushing the pipe and in which when the wrench is moved reversedly to recover its hold on a pipe the jaws will yield slightly, so that they may be moved loosely around the pipe without gripping the same.

This specification is the disclosure of one form of the invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal section of the invention, showing it in use. Fig. 2 is a cross-section on the line 2 2 of Fig. 1. Fig. 3 is a front view of the body of the wrench with the two jaws removed. Fig. 4 is a detail perspective view of the stationary jaw, and Fig. 5 is a detail perspective view of the spring which actuates the movable jaw.

The wrench has an elongated hollow body portion a and a handle a' , such parts being preferably formed integral. The body portion a is formed with a transversely-disposed circular passage a^2 , extending through its side walls, and in this passage the movable jaw-carrier b is mounted to roll. This jaw-carrier is circular in exterior form, so as to match with the walls of the passage a^2 . The shank c' of the movable jaw c is fitted longitudinally in the cavity of the body a and is extended loosely through the carrier b . A nut d is mounted to turn in the carrier and encircles the shank c' , the shank being formed with screw-threads working with those on the nut. It will thus be seen that the movable jaw c is held in the body, so that it may be adjusted longitudinally thereof and so, also,

that it may rock around the axis of the circular carrier b .

The stationary jaw e is mounted at the lower front portion of the body of the wrench, opposite the jaw c , and is formed with a rearwardly-extended lug e' , engaged by a transverse pin e^2 , whereby the jaw e is rigidly yet removably held in place. The front end of the body a of the wrench is formed with a recess a^3 to receive the jaw e , as best shown in Fig. 3. The lower front extremity of the body a has a T-shaped slot a^4 therein, which is provided with tapering side walls and which receives the tapering or dovetail end f' of the spring f . This spring is situated within the cavity in the body a just below the carrier b and has its upper end f^2 arranged to form a pin which is engaged in the recess in the carrier b . The jaw e being held in place by the pin e^2 presses against the end of the spring f and wedges the same firmly in position, fastening said end of the spring to the body of the wrench. The free end f^2 of the spring being connected with the carrier b serves to actuate the same, and this spring is so set that it will tend to throw upward the inner end of the shank c' of the jaw c , holding the shank and jaw when not operating in the position opposite that shown in Fig. 1.

When the wrench is engaged with a pipe, the jaws will be moved to the position shown in Fig. 1, and then by turning the wrench in the usual manner the oppositely-ratcheted faces of the jaws c and e will engage the pipe at diametrically opposite points and turn it. When the working strain on the wrench is relaxed and movement of the wrench reversed to recover the grip of the jaws on the pipe, the shank c' of the jaw c is moved by the force of the spring f and the inner end of the shank is thrown upward, throwing inward the lower end of the jaw c , and thus yieldingly pressing said jaw on the pipe. This enables the jaws to be moved idly over the pipe to recover their grip, and then when the wrench is moved again to turn the pipe the jaws firmly engage with the same, as described.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. A pipe-wrench, having a hollow body, a carrier mounted thereon, a movable jaw with
5 a threaded shank passed through the carrier, a nut encircling the shank and fitted in the carrier, a stationary jaw removably fastened to the body of the wrench, and a spring carried by the body of the wrench and engaged
10 by the stationary jaw, to be held in place thereby, the spring having its free end in connection with the rolling carrier, to actuate the same and also to actuate the movable jaw.
- 15 2. A pipe-wrench having a body, a rolling carrier mounted therein, a movable jaw with a threaded shank passed through the carrier, a nut encircling the shank and fitted in the

carrier, a stationary jaw removably fastened to the body of the wrench, and a spring carried between the body of the wrench and the stationary jaw and engaged with the rolling carrier, to actuate the same.

3. A pipe-wrench, having a body, a movable jaw, a rolling carrier in which the movable jaw is adjustably held, a stationary jaw fastened on the body, and a spring held between the body and the stationary jaw and engaging the carrier to actuate the same.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES MYRON INGERSOLL.

Witnesses:

ELIAS KUNTZ,
JOSEPH AINER.