

(No Model.)

J. C. STEVENS.
Pipe and Nut Wrench.

No. 233,893.

Patented Nov. 2, 1880.

Fig. 1.

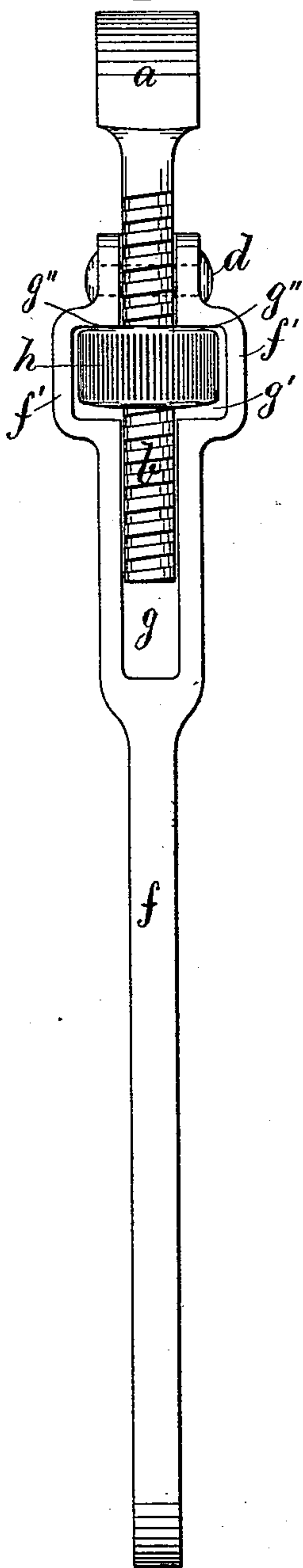
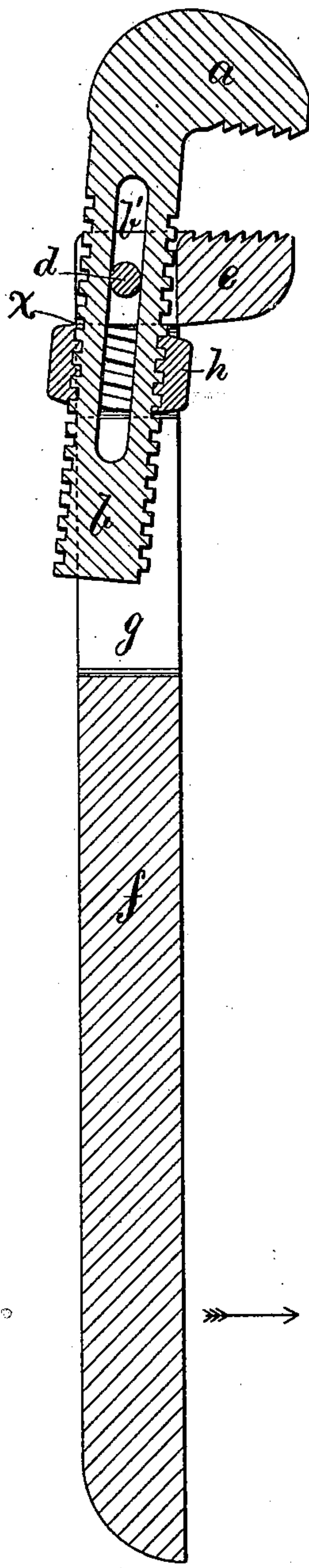


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOSIAH C. STEVENS, OF CAMBRIDGEPORT, MASSACHUSETTS.

PIPE AND NUT WRENCH.

SPECIFICATION forming part of Letters Patent No. 233,893, dated November 2, 1880.

Application filed October 1, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH C. STEVENS, a citizen of the United States, residing at Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Pipe and Nut Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in pipe and nut wrenches; and it is constructed, arranged, and carried out as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, in which—

Figure 1 represents a rear view of the wrench, and Fig. 2 represents a longitudinal section.

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

a is the movable jaw, with its screw-threaded shank b and nut h , as shown. The movable shank b is provided with a slotted perforation, b' , through which is inserted the fulcrum-pin d , the latter being riveted to the stationary jaw e , as shown.

f is the stationary shank, made in one piece, with the stationary jaw e , and provided with a slotted opening, g , for the reception and guidance of the movable shank b , the latter being screw-threaded, as shown, and provided with the serrated thumb-nut h , by means of which the wrench can be adjusted for different sizes of nuts or pipes, as may be desired. The thumb-nut h rests loosely in the slotted perforation g' in the stationary shank f , just below the stationary jaw e , as shown, the shank f being at this place carried out as guard pieces or protectors $f' f'$ on two opposite sides of the thumb-nut h , by which arrangement the latter is protected from being injured and defaced when the wrench is thrown upon hard objects or while being in use.

The rivet d serves as a fulcrum on which the

movable jaw a turns while the wrench is in the act of gripping or grasping the nut or pipe, as well as when the wrench is being released from such objects. The intersection at x , Fig. 2, between the upper part of the nut h and edges $g'' g''$ of the opening g' , also serves as an additional fulcrum on which the movable jaw a turns, and it will be seen that by this peculiar construction and arrangement, when the shank f is moved in the direction of the arrow, (shown in Fig. 2,) and a nut or pipe is introduced between the jaws a and e , the latter are forcibly drawn toward each other, and the object held between them, by the swinging motion of the nut h on the surfaces $g'' g''$, and consequently the harder the shank f is moved in the direction of the arrow (shown in Fig. 2) the firmer is the nut or pipe grasped and held between the jaws a and e . By reversing the motion of the shank f the hold on the nut or pipe is instantly decreased, as the serrated nut h swings or turns toward the stationary jaw e , and thus increases the distance between the jaws a and e , and by this means no difficulty whatever is experienced in quickly releasing the hold on the object held between the jaws, no matter how firmly they have confined the nut or pipe between them.

The wrench is very simple in its construction, and is composed of very few parts, and will take a firm hold on both nuts and pipes even if the edges of the jaws should not be made serrated, as shown in the drawings.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

The herein-described wrench, consisting of the movable jaw a , with its screw-threaded shank b , having slot-hole b' and adjustable nut h , and the stationary jaw e , with its stationary shank f , having slotted recesses $g g'$, protectors $f' f'$, and fulcrum-pin d , as and for the purpose set forth.

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

JOSIAH C. STEVENS.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBOURN.