

(No Model.)

J. H. VINTON.

PIPE WRENCH.

No. 397,618.

Patented Feb. 12, 1889.

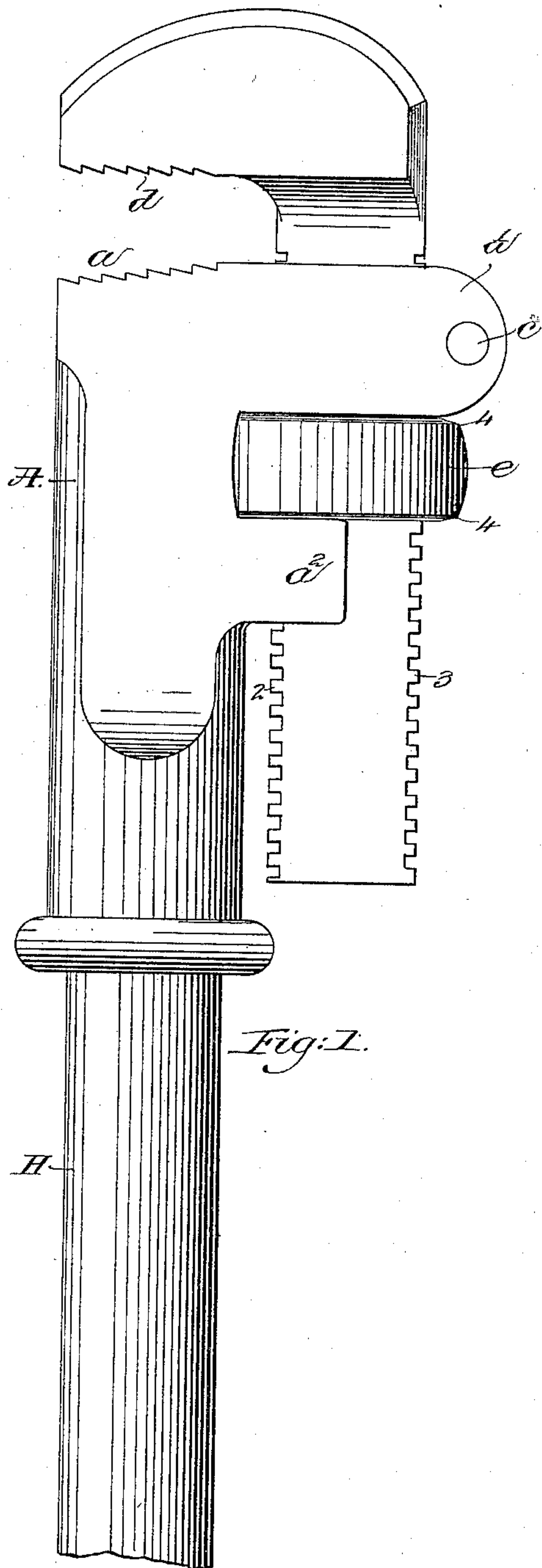


Fig: 1.

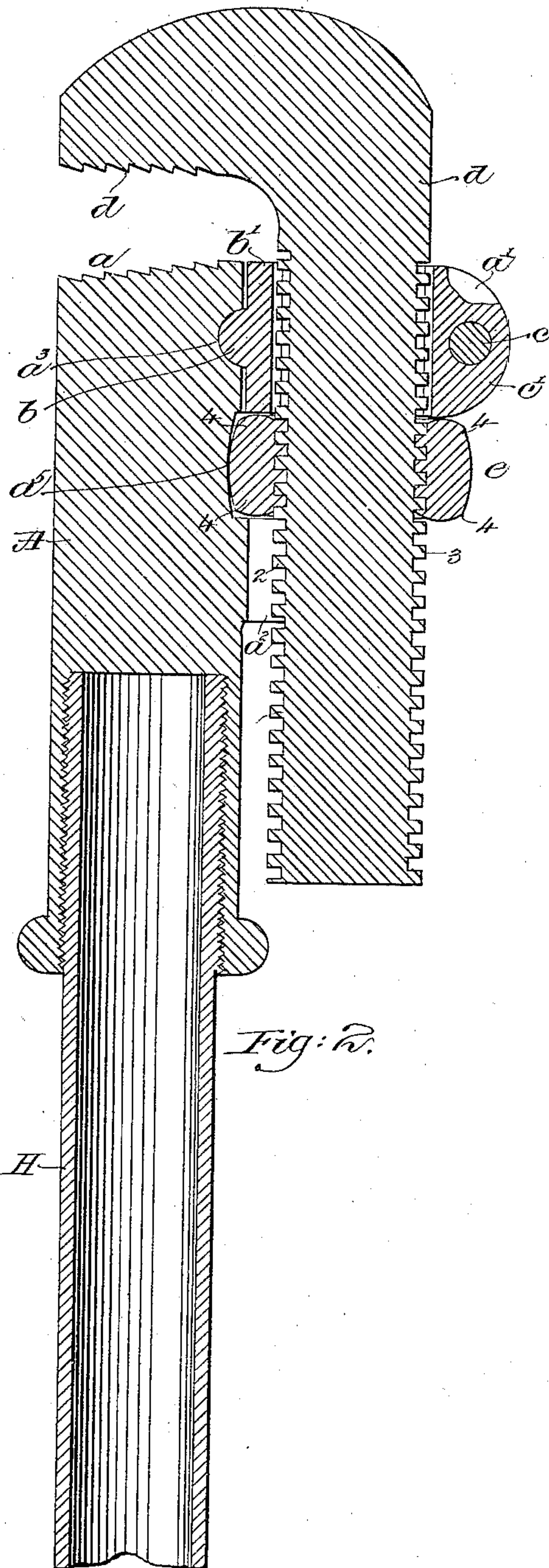


Fig: 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 397,618, dated February 12, 1889.

Application filed August 6, 1888. Serial No. 282,066. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. VINTON, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Pipe-
5 Wrenches, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the pro-
10 duction of a durable low-cost wrench, which may be quickly applied to pipe and other objects to be turned without removing the wrench.

My improved wrench comprehends a fixed
15 jaw to which is connected a handle and a movable Γ -shaped jaw threaded for the reception of an adjusting ring-nut, the shank of the fixed jaw having projections to co-operate with and prevent the movement of the ring-
20 nut in the direction of the length of the shank of the fixed jaw, the said fixed jaw having ears, and within or between the said movable and fixed jaws I have placed a rocker, against which the inner threaded edge of the shank
25 of the movable jaw bears, and over which the said edge slides when the ring-nut is being turned to adjust the jaws, the said nut being located at one end of the said rocker and outside the said ears, whereby the nut is en-
30 abled when strain is applied to the wrench to bear with one end against the edges of the ears entirely about the shank of the movable jaw, such location of the nut with relation to the ears and the rocker enabling the produc-
35 tion of a stronger and more compact wrench than were the nut placed between the shank of the movable jaw and the rocker. I have also shown the ears referred to as connected together at their outer ends by a pin or stud,
40 the said pin or stud receiving upon it a second rocker or block, against which bears the outer threaded edge of the shank of the movable jaw.

Figure 1 in elevation shows a wrench em-
45 bodying my invention, the handle being partially broken off; and Fig. 2 is a longitudinal section thereof.

The fixed jaw A of the wrench will preferably be cast; but it may be formed by forging.
50 The fixed jaw is provided at one end with a

toothed surface, a , and at one edge of the said jaw, near the said toothed surface, the said fixed jaw has two strong parallel ears, a' a' , and yet farther from the said toothed surface
55 a the said fixed jaw has two other shoulders or ears, a^2 a^2 .

A part of the shank of the fixed jaw is represented as provided with screw-threads, (see Fig. 2,) to be engaged by a threaded handle,
60 which may be of gas-pipe.

The fixed jaw between the ears a' a' is provided, as shown, with a curved seat, a^3 , to receive a seat, b , at the back of the inner
65 rocker-block, b' , which is mounted loosely between the said ears and also between the threaded inner edge of the shank of the said movable jaw and the fixed jaw, the shape of the fixed jaw and the block b' being such as to permit the said block to tip for a limited
70 distance on the fixed jaw.

The outer ends of the ears a' a' are united by a pin or bolt, c , on which is pivoted and free to tip the outer rocker-block, c' . The opposite smooth faces of these two rocker-
75 blocks receive against them the threaded edges 2 3 of the shank of the movable Γ -shaped jaw d , having the serrated biting-teeth d' , the said shank below the said rocker-block b' , or at its end and between the said ears a' , receiving upon it the threaded adjust-
80 ing ring-nut e , it being shown as placed between the two upper ears, a' a' , and the two lower ears, a^2 a^2 , before described, the upper and lower edges of the said ring-nut e being rounded, as at 4, and entering a pocket, a^5 , in
85 the fixed jaw, the rounded edges of the nut permitting it to rock readily with the movable jaw and not contact with the fixed jaw in such way as to be in any way retarded in its free movement as the jaw is loosened from
90 and made to grasp the pipe or other article as the wrench is being used; and, further, it will be expressly noticed that the end of the nut e next the ears a' bears against the said ears entirely about the shank of the movable jaw
95 when power is applied to the wrench, the contact of the nut with the said ears a' , as described, preventing crushing strain of the wrench on the pipe.

I do not claim a wrench having a movable 100

jaw provided with a shank and having a threaded nut supported in a recess in a circular block fitted into a circular recess cut through ears.

5 The wrench herein shown has great strength and may be cheaply constructed.

By detaching the handle the wrench may be packed into small compass.

I claim—

10 1. The fixed jaw A of the wrench, it having a serrated portion, a , ears $a' a'$ and $a^2 a^2$, and a seat, a^3 , and the movable 7-shaped jaw having the serrated portion d and a threaded shank, combined with the rocker b' , mounted
15 between the ears $a' a'$ and between the threaded shank of the movable jaw and one edge of the fixed jaw, and with the ring-nut applied to the threaded shank of the movable jaw outside the said ears a' and at one end of
20 the said rocker b' , all as shown and described, whereby one end of the said nut is free to take bearing entirely about the shank of the movable jaw and against the edges of the ears a'

a' , as described, and for the purposes set forth.

25 2. The fixed jaw A of the wrench, it having the serrated portion a , ears $a' a'$ and $a^2 a^2$, and seat a^3 , and the movable 7-shaped jaw having the serrated portion d and threaded shank, combined with the rockers $b' c'$,
30 mounted between the ears $a' a'$, the rocker b' being placed between the inner threaded edge of the movable jaw and the fixed jaw, and with the ring-nut applied to the threaded shank of the movable jaw outside the said
35 ears a' and at the ends of the said rockers, the combination being in operation as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two sub-
40 scribing witnesses.

JOHN H. VINTON.

Witnesses:

BERNICE J. NOYES,
FREDK. L. EMERY.