(No Model.)

H. H. SAUER.

PIPE WRENCH.

No. 588,484 Patented Aug. 17, 1897.

Fig. 1.

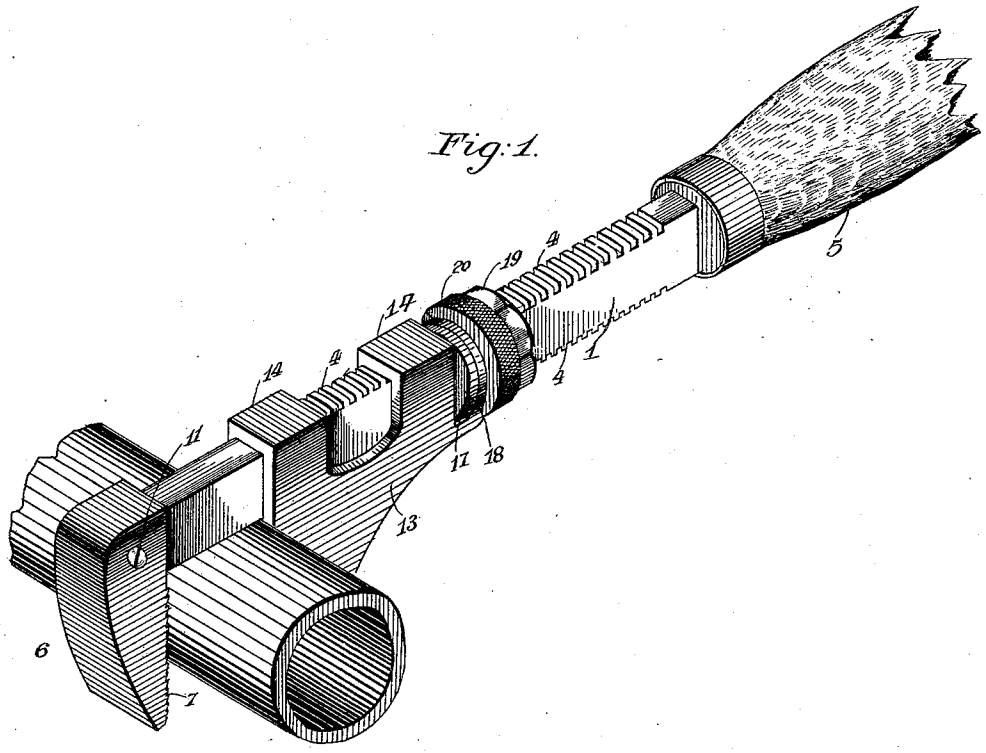
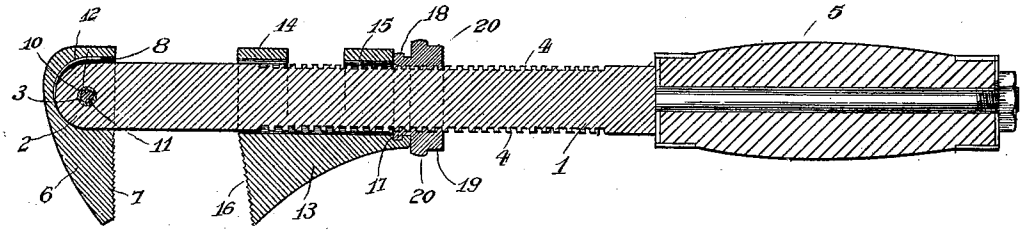


Fig. 2.



WITNESSES

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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 588,484, dated August 17, 1897.

Application filed January 27, 1897. Serial No. 620,955. (No model.)

To all whom it may concern:

Be it known that I, HUGO H. SAUER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Pipe-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.

My invention relates to improvements in pipe-wrenches, and has for its object the production of a simple, durable, and efficient wrench of the character described provided with a pair of adjustable jaws designed to automatically assume a proper relative position with the curved periphery of a pipe to which the device is applied.

To the accomplishment of this and other objects my invention consists in pivoting a spring-actuated head upon one extremity of the wrench-shank and in providing a traveling jaw having an inclined corrugated face disposed in divergent relation with a similar face upon the pivoted jaw, and, further, in the provision of simple and durable actuating or adjusting mechanism for accomplishing the clamping of the traveling jaw against the object held between it and the pivoted jaw.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my device complete, showing it applied to a pipe; and Fig. 2 is a central vertical section through the wrench.

Referring to the numerals on the drawings, 1 indicates a wrench-shank provided with a curved and preferably semicircular extremity 2, a transverse aperture 3, and with threads 4 upon its opposite edges.

5 indicates a suitable handle carried upon the extremity of the shank opposite to the curved extremity 2.

6 indicates what I will call the "pivot-head" jaw, provided with a corrugated clamping-face 7, a recess 8, designed to receive the extremity 2 of the shank, and with a transverse aperture designed for the reception of a wrist-pin 10, which passes through the aperture in the head and the aperture 3 in the shank, affording a pivotal connection between the shank and head for the purpose hereinafter made apparent. The wrist-pin 10 is held in place by a screw 11, screwed into the extremity of the pin 10, the purpose of said construction being to provide means for securing the wrist-pin in the head, while permitting of the pivotal movement of the head-jaw and shank upon the smooth exterior of the wrist-pin 10. The heads of the pin 10 and screw 11 are preferably countersunk in the sides of the head-jaw 6 to produce a smooth finish.

12 indicates a leaf-spring secured upon the curved extremity 2 of the shank and extending along the edge of said extremity to afford a yielding cushion between said shank and the adjacent wall of the recess 8, which latter is sufficiently larger than the shank 1 to permit of the predetermined pivotal movement of the head 6, urged by the spring 12, to normally sustain the clamping-face 7 at an angle with respect to the wrench.

13 indicates the traveling jaw, provided with bearing-lugs 14, apertured, as at 15, for the reception of the shank, and with an inclined clamping-face 16, designed to coöperate with the face 7 to clamp a pipe or similar object. The jaw 13 is preferably provided upon its lower extremity and to one side of the lugs 14 with a recess 17, designed for the reception of an annular flange 18, carried by the adjustment-nut 19, internally screw-threaded and designed to be rotated upon the shank 1 by means of a knurled flange 20.

It will appear from the foregoing that the clamping-faces 7 and 16 will be retained normally in divergent relation, and that by the rotation of the nut 19 the traveling jaw may be actuated toward or from the head-jaw in the act of adjusting the wrench to the object to be turned.

I do not desire to limit myself to the details of construction herein shown and described, but reserve to myself the right to change, modify, or vary such details within the scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a wrench, the combination with a head provided with a recess, of a shank provided

with a curved extremity within said recess and a spring intermediate the shank and jaw, a wrist-pin pivotally connecting the said shank and jaw and secured by a screw screwed into one extremity, a traveling jaw provided with apertured bearing-lugs and with a recess at one extremity, and an adjustment-nut carried by threads upon the shank and provided with an annular flange engaging the recess of the traveling jaw, substantially as specified.

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

HUGO H. SAUER.

Witnesses:
EDWARD CARNATZ,
OSCAR GOSSAUER.