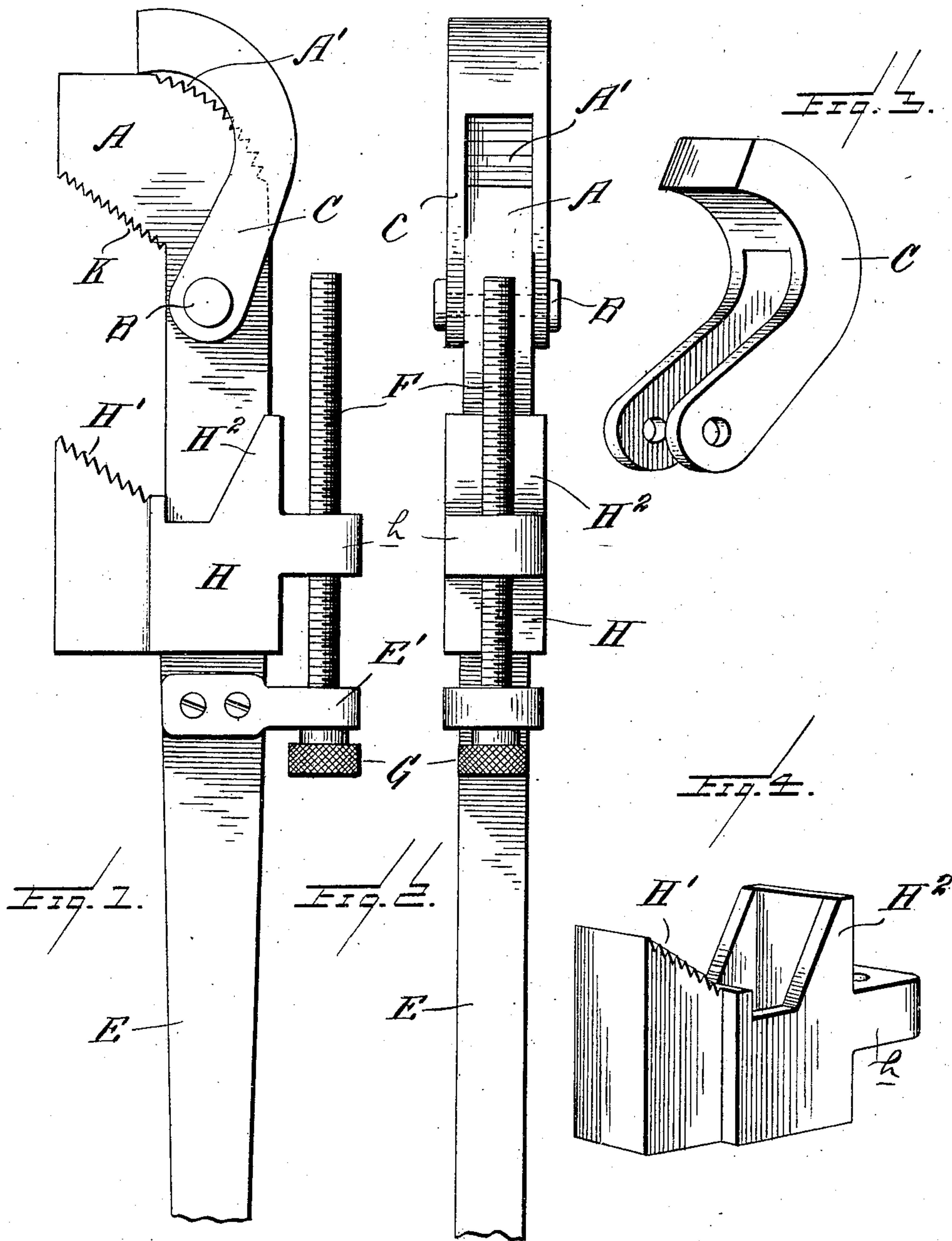


No. 876,716.

PATENTED JAN. 14, 1908.

J. HUGHES.
PIPE WRENCH.

APPLICATION FILED OCT. 23, 1907.



WITNESSES:

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JOHN HUGHES, OF HARTFORD, CONNECTICUT.

PIPE-WRENCH.

No. 876,716.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed October 23, 1907. Serial No. 398,813.

To all whom it may concern:

Be it known that I, JOHN HUGHES, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in pipe wrenches and the object in view is to produce a simple and efficient device of this character, consisting of a fixed jaw having a pivotal jaw mounted thereon and also in the provision of a sliding jaw actuated by a screw and cooperating with teeth upon one of the edges of the fixed jaw.

The invention comprises various other details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a side elevation of my improved wrench. Fig. 2 is an edge view of the wrench. Fig. 3 is a detail perspective view of the pivotal jaw, and Fig. 4 is a detail perspective view of the sliding jaw.

Reference now being had to the details of the drawings by letter, A designates a fixed jaw having a serrated end A', and B designates a pin carried by said jaw and projecting beyond the opposite faces thereof and upon which a pivoted jaw C is pivotally mounted, said pivotal jaw having preferably a forked end to fit over the jaw. In the drawings, I have shown the pivotal jaw as being curved but, if desired, it may be angular or any other shape and is adapted to cooperate with the teeth upon the end of the fixed jaw. It will be observed that the end of the fixed jaw and the pivotal jaw are so shaped that they will afford means for securely gripping and getting a secure purchase upon a pipe, the grip increasing in strength as strain comes upon the same. Said fixed jaw has a shank E to which is fastened a screw guide E'. A suitable hand wheel or milled disk G is fixed to the end of a screw and affords means for turning the same. Said screw passes

through a threaded aperture in an offset or lug *h* upon the sliding jaw whereby, as the screw is turned in one direction or the other, said sliding jaw may be moved back and forth upon the shank of the fixed jaw. Said jaw H has an inclined serrated portion H' adapted to cooperate with a series of teeth K formed upon the overhanging or inclined rear edge of the fixed jaw. Said sliding jaw H has a hollow portion adapted to receive the shank of the fixed jaw and upon which the sliding jaw is guided as it is moved in one direction or the other by said screw.

It will be noted that the sliding jaw H has a projection H² upon one edge thereof which may be thrown into the path of the pivotal jaw and serve to limit its movement in one direction and forming means to securely hold the pivotal jaw in a fixed position.

From the foregoing, it will be noted that, by the provision of a wrench made in accordance with the construction shown in the accompanying drawings, two sets of gripping jaws are provided, one set of which comprises the fixed jaw and the pivotal jaw and the other a sliding jaw and the teeth upon the opposite or inner inclined edge of the fixed jaw and so arranged that the wrench may be easily and quickly applied and a secure purchase afforded upon a pipe or other object desired to be turned thereby.

What I claim to be new is:

A wrench comprising a fixed jaw and shank, said jaw having a curved series of teeth upon one edge thereof and an inclined series of teeth upon the opposite edge, a curved toothless pivotal jaw having arms, one of which is pivotally mounted upon each side of the shank of the fixed jaw, a bracket arm fixed to said shank, a screw swiveled therein, a sliding jaw mounted upon the shank of the fixed jaw and provided with a laterally projecting apertured lug through which the threaded screw passes, said sliding jaw having an inclined series of teeth and projecting portions at one end of the sleeve of the movable jaw, the edges of said projection being inclined, one upon either side of the shank of the fixed jaw, as shown and described.

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

JOHN HUGHES.

Witnesses:

MAX BLUMENTHAL,

CHARLES J. WITTMANN.