(No Model.)

J. J. HALDEMAN.

PIPE WRENCH.

No. 594,348. Patented Nov. 23, 1897.

Fig. 1.

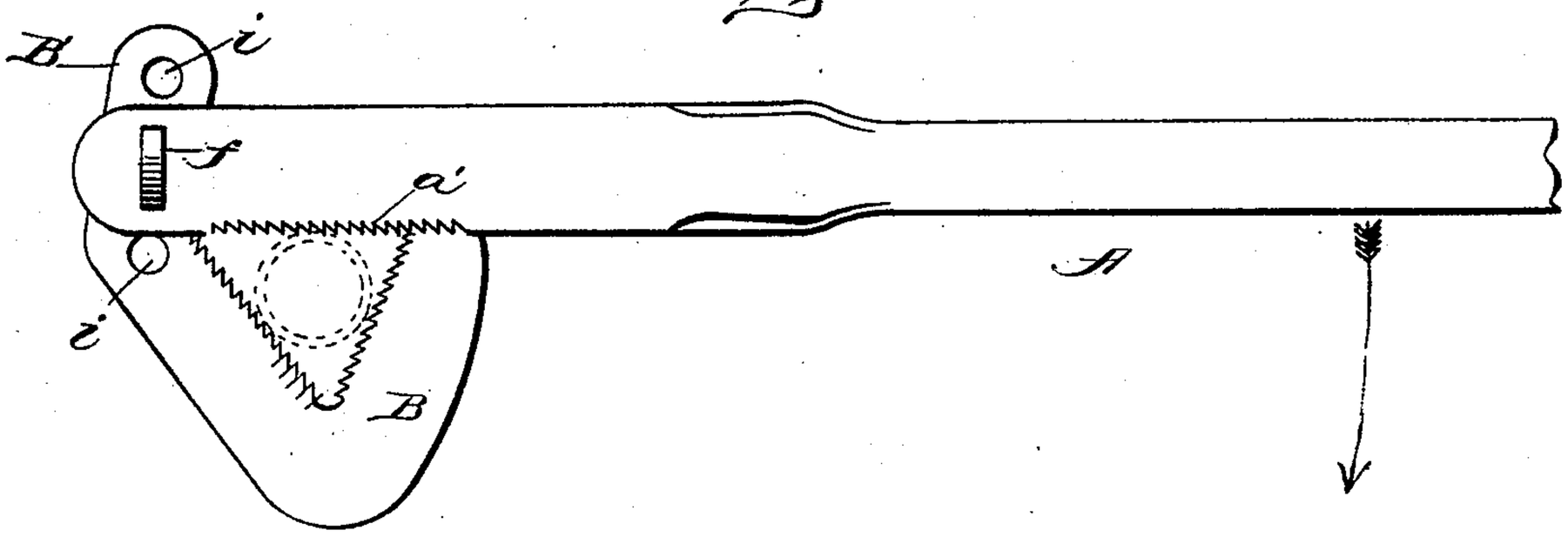


Fig. 2.

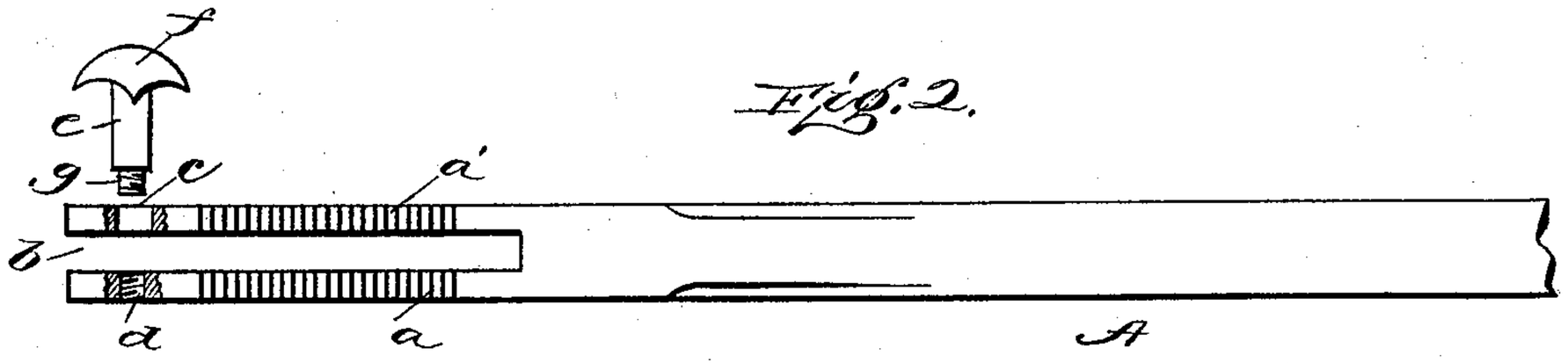
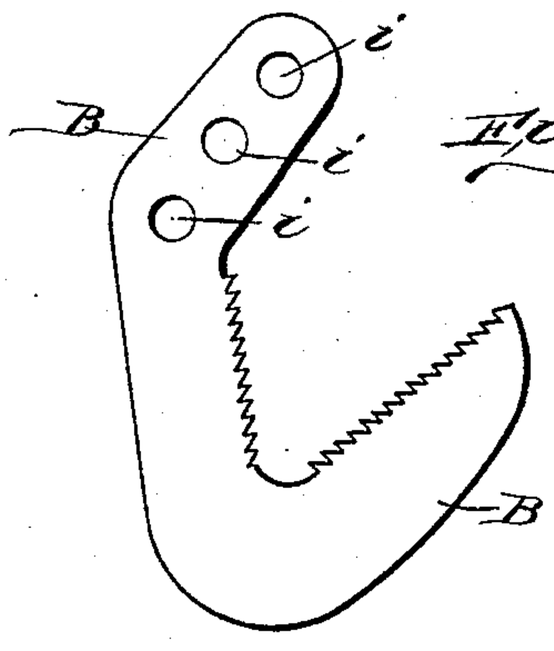


Fig. 3.



Witnesses:
J. M. Fowler Jr.
C. B. Woodbury

Inventor:
John J. Haldeman,
by Bunyea & Bunyea,
Attorneys

UNITED STATES PATENT OFFICE.

JOHN J. HALDEMAN, OF SHAMOKIN, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO WILLIAM P. G. HOFFMAN AND WILLIAM A. MURRAY, OF SUNBURY, PENNSYLVANIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 594,348, dated November 23, 1897.

Application filed August 25, 1896. Renewed May 6, 1897. Serial No. 635,410. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HALDEMAN, a citizen of the United States, residing at Shamokin, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Pipe-Wrenches; and I do 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 of reference marked thereon, which form a part of this specification.

The object of my invention is to produce a pipe-wrench which is capable of ready adjustment to pipes of different sizes and which for each adjustment of the pivoted jaw considerable range as to the sizes of pipes to be operated upon is given to the tool.

A further object is to produce a tool having a hook-shaped jaw pivoted in the outer end of the handle and the contact-surface of the jaws so arranged as to bear upon three sides of a pipe of any size within the scope of the wrench and at substantially equal distances between the bearings.

I attain these objects by means of the construction shown in the drawings, forming a part of this specification, and in which—

Figure 1 is a side view of my wrench, showing a pipe in dotted lines in the jaw. Fig. 2 is a bottom plan view of the handle, also showing the thumb-screw for holding the jaw in adjusted position and the bearings for said screw. Figure 3 is a side view of the pivoted jaw.

The same letters of reference indicate the same parts wherever they occur.

A is the handle of the wrench, the front end of which is bifurcated, as at *b*, and provided with an aperture in each bifurcation. One of these apertures, *c*, is plain and of a size to fit the shank *e* of the thumb-screw *f*, while the other aperture, *d*, is screw-threaded to accommodate the threaded portion *g* of the thumb-screw. The handle at the bifurcated end is provided with teeth *a a'*. The jaw B has a substantially V-shaped contact-surface and the shank B' is set to extend inward over the contact-surface. The shank B' is provided with a series of perforations *i* to allow adjustment of the jaw B to different sizes of pipes.

It will be noticed that with my wrench the pipe is clamped at three substantially equidistant points of the periphery thereof and that the contact-surfaces are in a straight line. It will also be noticed that while there are three bearings-points upon the periphery of the pipe there are four contact-points longitudinally of the pipe in three different vertical planes—viz., the two rows of teeth *a* and *a'* bear upon the pipe at some distance apart and the teeth upon the jaw bear upon the pipe at an intermediate point upon the opposite periphery. This distribution of the contacting points has given the very best results in actual test. The greater the power applied to turn the handle in the direction indicated by the arrow in Fig. 1 the greater will be the gripping action of the jaw.

It will be noticed that a number of different sizes of pipes may be operated upon without requiring adjustment of the pivoted jaw, and with any-sized pipe within the range of each adjustment the pipe will be clamped at three points on the periphery and at four contact-points longitudinally thereof and in three different vertical planes.

What I desire to secure by Letters Patent and claim is—

A pipe-wrench consisting of a jaw pivoted at the outer end of a bifurcated handle, with its free end turned inward to pass between the bifurcations, gripping-teeth upon the bifurcations, a V-shaped clamping-surface within the jaw and provided with gripping-teeth, a shank on the jaw extending over the clamping-surface, and provided with perforations for adjustment and a thumb-screw for holding the jaw in adjusted position, substantially as described.

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

JOHN J. HALDEMAN.

Witnesses:
OLIVER SNYDER,
JOHN SIMMENDINGER.