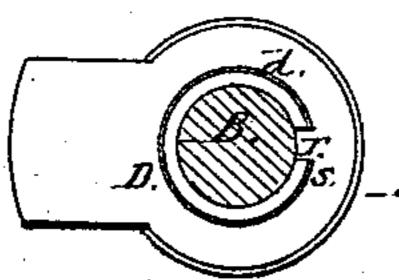
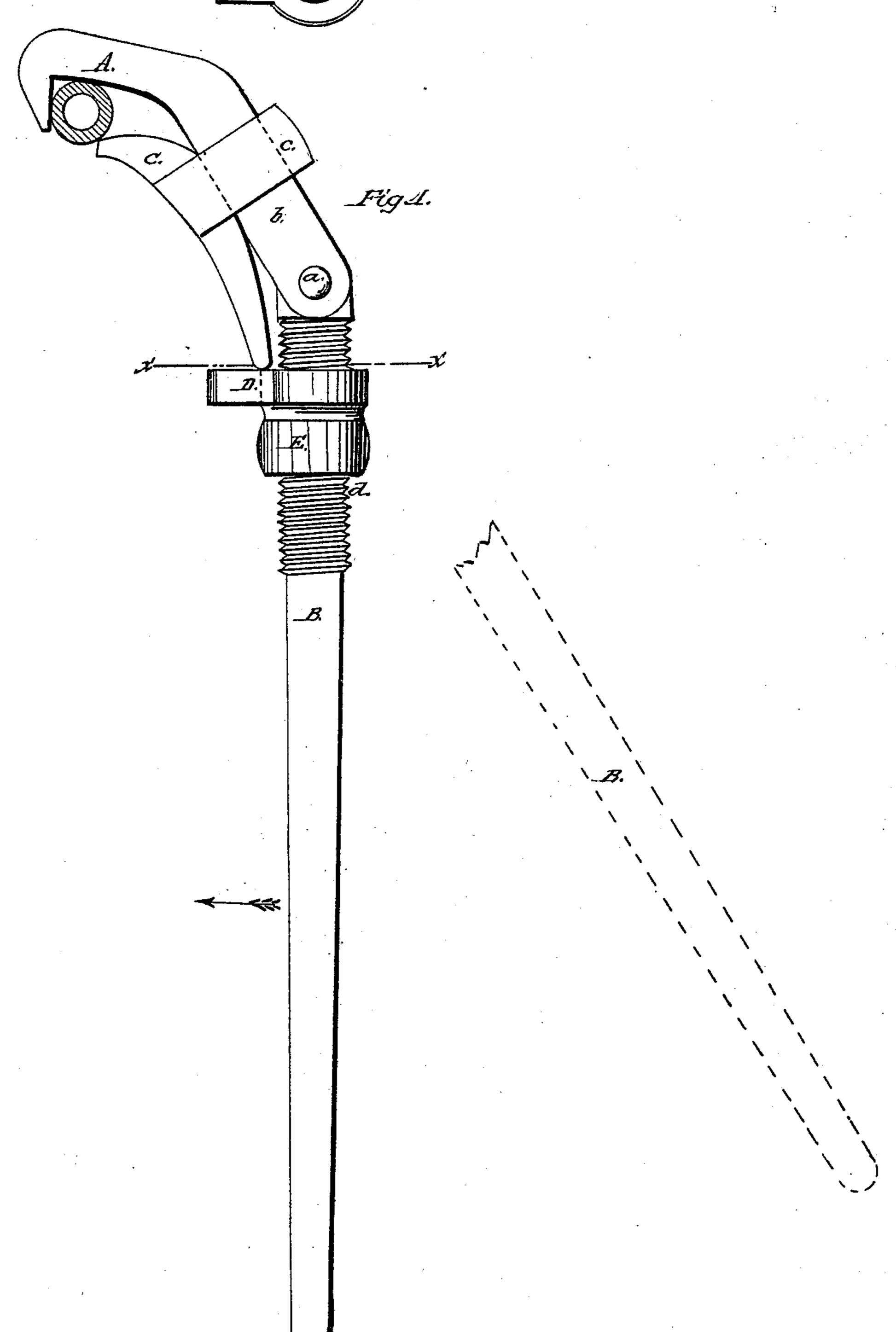
M. Hastings,

Pite Menot.

10.94.107.



Falonted Aug. 24.1869.



Witnesses: Fred. Hayneg M.Coomly

Inventor: Michael Hastings

Anited States Patent Office.

MICHAEL HASTINGS, OF BROOKLYN, NEW YORK.

Letters Patent No. 94,107, dated August 24, 1869.

IMPROVEMENT IN PIPE-WRENCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MICHAEL HASTINGS, of Brooklyn, in the county of Kings, and State of New York, have invented a new and useful Improvement in "Pipe-Wrenches," of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a longitudinal view of a pipewrench, constructed in accordance with my improvement, and

Figure 2, a transverse section of the same, through the line x x in fig. 1.

Similar letters of reference indicate corresponding parts.

My improvement relates to pipe-wrenches, in which the outer jaw is pivoted to the handle for operation in connection with an inner jaw or tooth, in such manner as that the wrench is made to firmly grasp the article to be turned, and to readily release itself at each backward turn of the lever handle; and

The invention consists in a combination, with the outer pivoted jaw, of an inner jaw or tooth, arranged to freely slide on or along the shank of the pivoted jaw, and a loose support or stop to the inner jaw, fitted to slide on the lever-handle, and set up by a nut fitting a screw-thread on said handle, to adjust the implement to operate on different diameters or sizes of work, which combination of parts forms a most simple, efficient, and durable pipe-wrench.

Referring to the accompanying drawing—

A represents the outer jaw or claw, pivoted, as at a, to the lever-handle B, and having fitted to freely slide on its shank b, by means of a strap-like projection, c, the inner jaw or tooth C, which is so shaped or disposed that its tail-end rests against a loose supporting collar or stop, D, fitted to freely slide on the inner or forward end of the lever-handle.

This loose collar is guided, in being slid along the lever-handle, by means of a feather, r, on it, made to fit a groove, s, in the lever, and said collar supported or adjusted to bear up against the tail-end of the inner jaw or tooth C, by means of a nut, E, arranged to fit a screw-thread, d, cut on the forward end of the lever.

From this description it will be obvious that, on turning the nut E backward or forward, as desired, the jaws are readily adjusted to operate on different sizes of work; also, that a firm grasp of the pipe, or other work, is secured when working the lever B, as indicated by the arrow m, and the wrench made to release its grasp when swinging the handle back to the position represented by red lines, whereby an intermittent turning of the work in the same direction is secured.

The loose or freely-sliding jaw C, with its rest or stop D, effects an easy and positive action of the wrench, with every facility of adjustment, by the nut E, and the whole forms a combination which is durable, cheap, and strong, and the parts of which may be readily replaced by corresponding ones when required.

What is here claimed, and desired to be secured by

Letters Patent, is-

The combination with the outer jaw or claw A, pivoted to the lever-handle B, of the inner jaw or tooth C, fitted to freely slide on the shank of the outer jaw, the freely-sliding supporting-collar or stop D, and the nut E, arranged to fit a screw-thread on the forward end of the lever-handle, substantially as specified.

MICHAEL HASTINGS.

Witnesses:

FRED. HAYNES, J. W. COOMBS.