

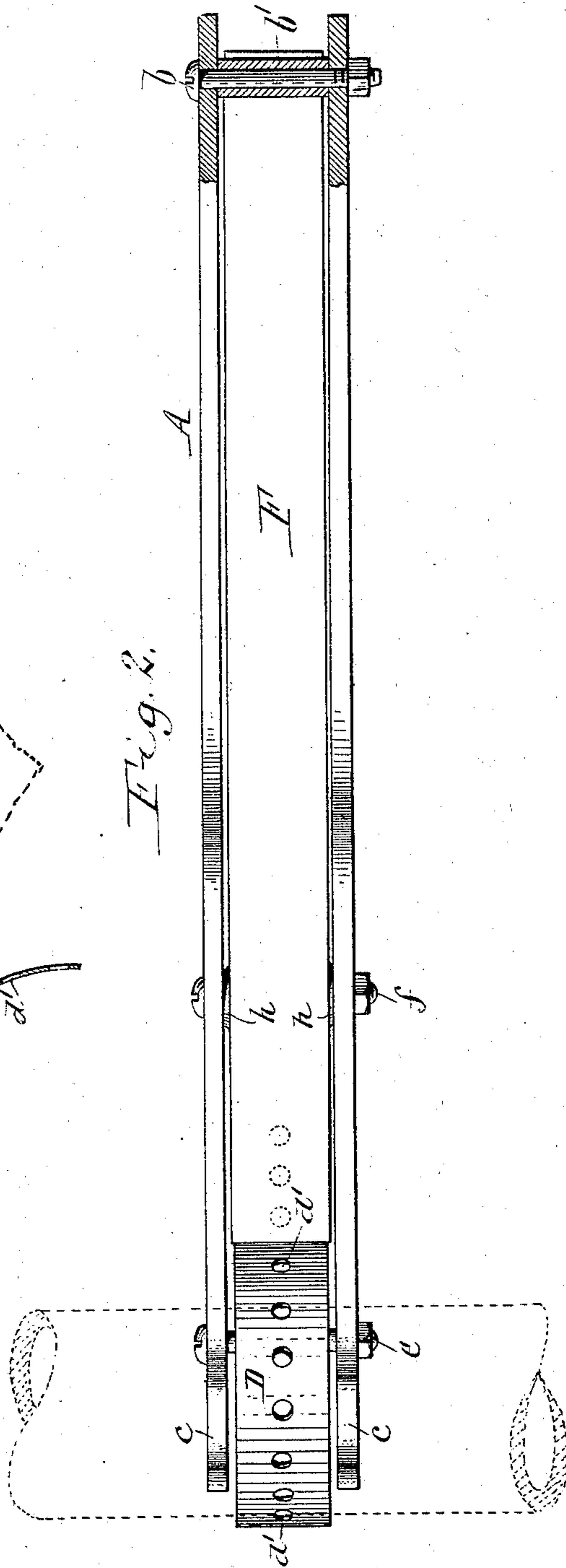
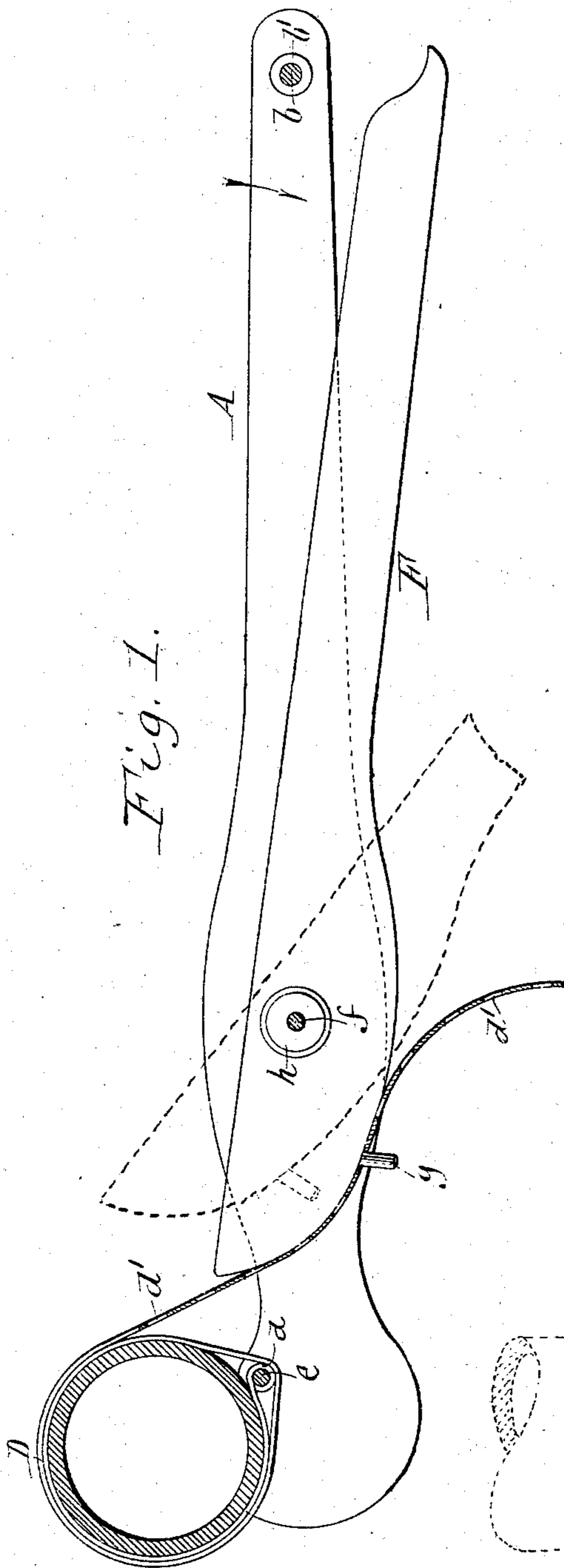
No. 705,596.

Patented July 29, 1902.

J. G. MORITH.  
PIPE WRENCH.

(Application filed Nov. 2, 1901.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOSEPH G. MORITH, OF BUFFALO, NEW YORK.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 705,596, dated July 29, 1902.

Application filed November 2, 1901. Serial No. 80,848. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH G. MORITH, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention relates to a pipe-wrench designed more especially for grasping and turning pipes having a polished, nickel-plated, or other ornamental surface which is liable to be marred by the jaws of ordinary wrenches.

The object of my invention is the construction of a strong and inexpensive wrench by which such ornamental pipes can be reliably gripped and tightened without danger of scratching, indenting, or otherwise marring their surface.

In the accompanying drawings, Figure 1 is a longitudinal section of my improved wrench, showing the same clutched to a pipe preparatory to turning the same. Fig. 2 is a top plan view of the wrench, partly in section.

Like letters of reference refer to like parts in both figures.

A indicates the handle of the wrench, which is composed of a pair of rigid parallel bars or side pieces. These bars are tied together at their rear ends by a transverse bolt *b* and separated by a spacing-thimble *b'*, applied to said bolt between the bars or by any other suitable means. The side bars A are provided in their upper edges near their front ends with concave seats or depressions *c*, adapted to receive the side of the pipe to be turned.

D indicates a flexible gripping band or strap attached to the front portion of the handle A and adapted to be wound around the pipe one or more times. This strap, which preferably consists of a thin steel band, is fastened at its inner end to a transverse pin or bolt *e*, which connects the side bars of the handle at or near the rear ends of the pipe-seats *c*. In the preferred construction shown in the drawings the strap is formed with an eye *d*, which encircles said bolt, as shown in Fig. 1. The free portion of the gripping-strap is adapted to be removably attached to a tightening or clamping lever F, pivoted to the handle of the wrench in rear of the pipe-

seats *c* by a transverse bolt *f*. As the point at which the strap is attached to this lever varies according to the diameter of the pipe, the free portion of the strap is provided with a longitudinal row of openings *d'*, one of which is adapted to be engaged with a stud *g*, projecting downwardly from the front arm of the lever; but other suitable means may be employed for adjustably attaching the free end of the strap to the lever. The front end of this lever terminates near the attaching-bolt *e* of the gripping-strap D, and its under side is preferably curved, as shown, to form a long bearing for the free end of the strap. The lever is arranged between the side bars of the handle, and its rear arm is comparatively long to afford a powerful leverage. Around the ends of its pivot-opening the lever is provided with projecting bosses *h*, which separate the body of the lever from the side bars of the handle, thereby reducing the friction between these parts and also properly spacing the side bars at this point. The front portions of these bars are tied together by the pivot-bolt *f* and the fastening-bolt *e* of the gripping-strap.

In using the wrench its gripping-strap D is detached from the tightening-lever F and uncoiled, and the seats *c* of the handle are placed against the under side of the pipe. The gripping-strap is then wrapped forwardly and upwardly around the pipe a number of times, with the wrappings overlying each other, and drawn tightly about the pipe by hand, after which its free end is passed downwardly between the pipe and the front end of the tightening-lever F, and the opening in the strap nearest the stud *g* of the tightening-lever is engaged over the stud, the lever being previously turned at an angle to the handle to bring the stud above its lowest position, as shown by dotted lines in Fig. 1. The rear arm of the tightening-lever is next pulled upward on the handle, which causes its front arm to move downward and draw the perforated end of the strap with it, thereby contracting the strap tightly around the pipe and reliably clutching the wrench to the same. While holding the lever in this position the handle is pulled forwardly or in the direction of the arrow in Fig. 1 for turning the pipe, and during the return stroke of the

handle the lever is released sufficiently to allow the strap D and the handle A to loosen their grip on the pipe and slip on the same. Upon the next forward stroke of the wrench 5 the lever is again pulled toward the handle for tightening the strap, the lever being alternately tightened and released in this manner until the pipe has been screwed home and tightened. To remove the wrench from the 10 pipe, the gripping-strap is detached from the stud g of the tightening-lever and unwound from the pipe.

By this construction the flexible strap, although it has a smooth inner face, is so tightly 15 wrapped around the pipe by the clamping-lever F that it cannot slip on the pipe, and as the strap has no projections of any kind and the clamping-lever does not bear against the pipe the latter is not liable to be cut, 20 crushed, or otherwise defaced, rendering the wrench particularly desirable for turning pipes which are polished or decorated before being attached to couplings or other fittings.

I claim as my invention—

25 1. In a pipe-wrench, the combination with a handle provided with a pipe-seat, of a flexible gripping-strap attached at its inner end

to the handle near said pipe-seat and having its free portion provided with a longitudinal row of openings, and a tightening-lever piv- 30 oted to the handle in rear of said pipe-seat and provided with a stud adapted to engage with one of the strap-openings, substantially as set forth.

2. In a pipe-wrench, the combination with 35 a handle composed of a pair of parallel side bars provided in one of their side edges with pipe-seats and connected adjacent to said seats by a transverse bolt, of a flexible grip- 40 ping-strap attached at its inner end to said connecting-bolt and provided in its free portion with a longitudinal row of openings, and a tightening-lever pivoted between the side bars of the handle in rear of said pipe-seats 45 and having its front arm provided with a stud adapted to engage with one of the strap-openings, substantially as set forth.

Witness my hand this 30th day of October, 1901.

JOSEPH G. MORITH.

Witnesses:

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