(No Model.)

J. J. TOWER.

PIPE WRENCH.

No. 280,099. Patented June 26, 1883.

Fig 1

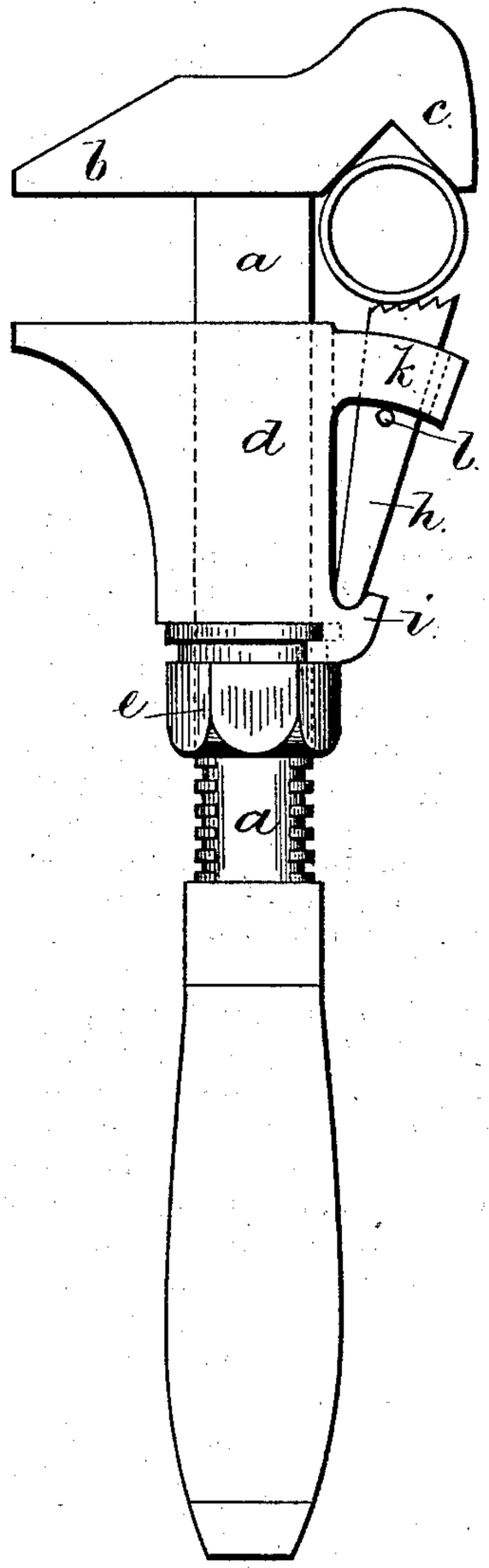
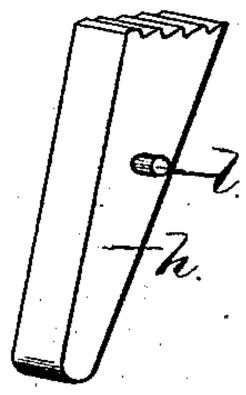


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. TOWER, OF BROOKLYN, NEW YORK.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 280,099, dated June 26, 1883.

Application filed May 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. TOWER, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Pipe-Wrenches, of which the following is a specification.

Wrenches have been made with the stationary jaw in the form of a T-head and the other jaw movable on the body of the wrench, and one side of such jaw adapted to nuts and similar polygonal articles, and the other side having a swinging toothed jaw adapted to grasping a pipe or rod. In these articles the swinging pipe-jaw is liable to undue friction upon the ears that retain it in place, and against which the pressure is applied, or else the jaw is attached by a pin in an elongated hole, which pin is liable to be bent.

My wrench has been constructed with reference to avoiding the before-named difficulties; and it consists in combining with the moving jaw of the wrench a loop that forms a support, a moving toothed jaw within such loop, a rounding pivotal end to such toothed jaw, and a pin in the jaw acting against the loop to retain the toothed jaw in place. By this improvement the rounding pivotal end takes the entire strain of the toothed jaw when in use, the loop supports the same against lateral displacement, and the pin simply prevents the toothed jaw becoming misplaced when not in use.

In the drawings, Figure 1 is a side view of the improved wrench, and Fig. 2 is a perspective view of the toothed jaw.

The body *a* of the wrench is provided with a handle at one end, as usual, and with a T-head at the other end, having one flat-faced jaw, *b*, and another V-recessed jaw, *c*. Upon the body *a* is the sliding jaw *d*, that is moved by a nut, *e*, upon the screw-edges of the body, as usual. At the back of this jaw *d* there is a projection, *i*, with a semicircular recess, into which is received the similarly-shaped end of the toothed jaw *h*, the other end of which is provided with transverse serrations, and the body part of this jaw *h* passes through the loop *k*, that is formed with and extends out from the moving wrench-jaw *d*, and there is a transverse pin, *l*, in the body of the toothed jaw, which, acting below the loop *k*, serves to retain the jaw in place. It, however, is not exposed to any strain when the wrench is applied to a pipe, because the thrust and strain are against the projection *i*. The toothed jaw is to be set up against the side of the pipe or other article that is grasped between the same and the V-recess in the jaw *c*, and the teeth of said jaw are pressed into the said pipe to grasp and turn the same when the wrench is moved, because the toothed jaw is like a toggle in its action and swings upon its pivotal end as the strain is applied; hence the action is very powerful and reliable.

I claim as my invention—

1. The combination, with the body and double head at the end thereof, of the sliding jaw *d*, having the projection *i*, with a semicircular recess, the toothed jaw *h*, with a rounding pivotal end, the loop *k*, extending out from the jaw *d* and receiving the toothed jaw, and the pin *l* in the toothed jaw, for retaining the same in place, substantially as set forth.

2. The combination, with the body and the V-jaw *c*, of the sliding jaw *d*, having the projection *i* and semicircular recess, the toothed jaw *h*, and with a rounding pivotal end, the loop *k*, extending out from the jaw *d* to receive the toothed jaw, and means for retaining such toothed jaw in place, substantially as set forth.

Signed by me this 18th day of May, A. D. 1883.

JOHN J. TOWER.

Witnesses:
GEO. T. PINCKNEY,
WILLIAM G. MOTT.