

(No Model.)

W. J. SHERMAN.

WRENCH.

No. 283,675.

Patented Aug. 21, 1883

Fig. 1.

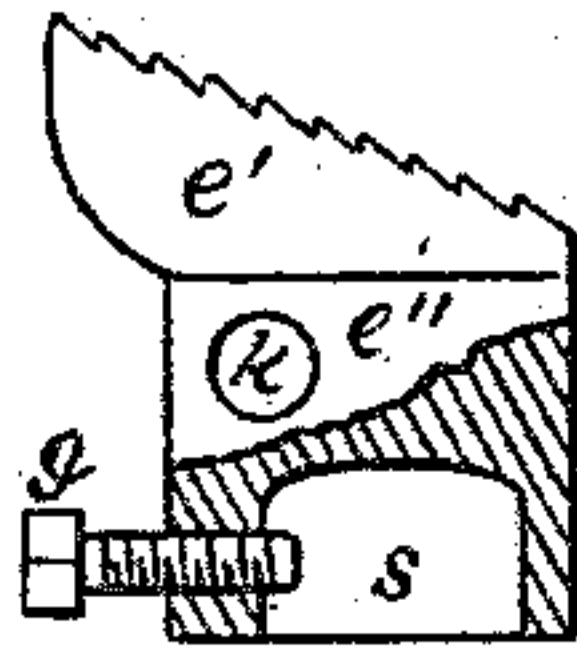
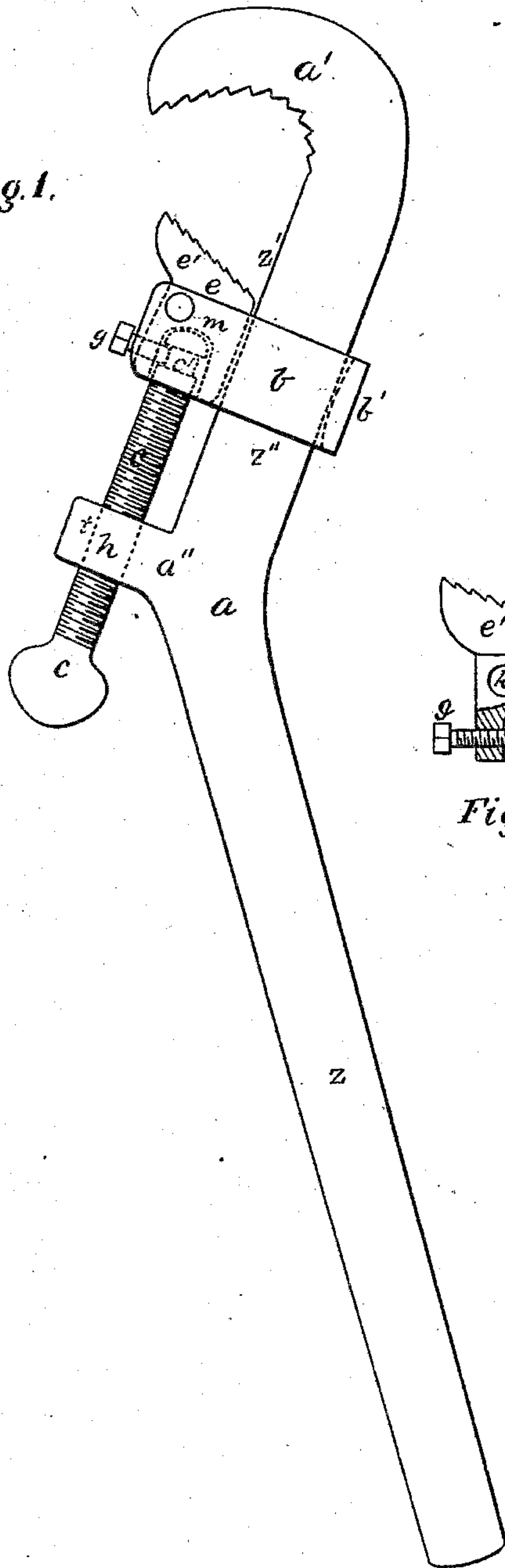
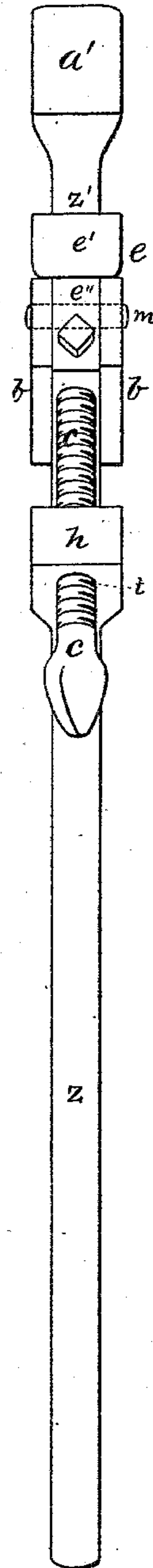


Fig. 3.

Fig. 2.



WITNESSES
Philip C. Mass.
E. H. Bates.

INVENTOR
Wm. J. Sherman,
by Anderson & Smith
his ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM J. SHERMAN, OF ST. AUGUSTINE, FLORIDA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 283,675, dated August 21, 1883.

Application filed March 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. SHERMAN, a citizen of the United States, residing at St. Augustine, in the county of St. Johns and State of Florida, have invented certain new and useful Improvements in 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view of my wrench. Fig. 2 is an edge view, and Fig. 3 is a detail view.

This invention has relation to pipe-wrenches; and it consists in the construction and novel arrangement of the bent hook-shank, having a tapped lug at its salient angle, a sliding jaw having a strap connection passing around the hook-shank, and a thumb-screw swiveled in the movable jaw, and engaging the threaded lug of the hook-shank, all as hereinafter set forth.

In the accompanying drawings, the letter *a* designates the bent shank of the hook-jaw *a'*, which is serrated on its inner or concave edge. From the end of the hook or beak *a'* to the bend or salient angle at *a''* the shank is straight on its inner edge, forming a bearing for the adjustable jaw *e*. From the angle *a''* the shank diverges to form the handle *z*. At the angle *a''* is formed on the shank a lug, *h*, opposite the beak or hook *a'*, and said lug is tapped parallel to the straight portion *z'* of the shank, between the lug and the hook, as indicated at *t*. The movable jaw *e* is made in block form, having a head, *e'*, and shank portion *e''*. The biting-surface of the head is serrated, and the shank portion *e''* is perforated, as indicated at *k*, to receive a transverse pin or bolt, *m*, whereby it is connected to the sides of the strap *b*, which passes around the bearing portion *z''* of the hook-shank, and serves to connect the movable jaw thereto. The outer end,

b', of the strap *b* is rounded on its inner wall, so that it will move freely along the shank *a* when the movable jaw is being adjusted. In the base of the movable jaw is formed a socket, *s*, of sufficient size to receive the end of the thumb-screw *c* and allow the same to turn freely. This thumb-screw engages the threaded perforation *t* of the lug on the main shank, and is annularly grooved at its end *c'*, to engage the inwardly-projecting end of the swivel-screw *g*, which passes through a threaded perforation in the movable jaw, entering the socket thereof. The movable jaw is adjusted with reference to the hook-jaw by means of the thumb-screw *c*. The serrated biting-surface of the movable jaw is inclined with reference to the straight portion *z''* of the main shank, to insure an automatic biting action when the wrench is applied to a pipe and the movable jaw properly set up by means of the thumb-screw.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

A pipe-wrench having its bent shank *a*, provided with the serrated hook-jaw *a'* at its upper end and formed with the lug *h* at the salient angle *a''*, between the handle *z* and the straight bearing *z'*, said lug being tapped parallel to the straight bearing *z'*, in combination with the movable jaw *e*, having the serrated head *e'*, shank *e''*, in the lower end of which is the socket *s*, provided with the swivel-screw *g*, the jaw *e* being connected to the strap *b*, which passes around the portion *z''* of the hook-shank by a transverse pin, *m*, and the thumb-screw *c*, engaging the threaded perforation *t* in lug *h*, and entering the socket *s* in the shank *e''* of the jaw *e*, in which it is held by the swivel-screw *g*, engaging the annular groove *c'* near its end, substantially as specified.

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

WILLIAM J. SHERMAN.

Witnesses:

B. F. OLIVEROS,
JAMES F. CANOVA.