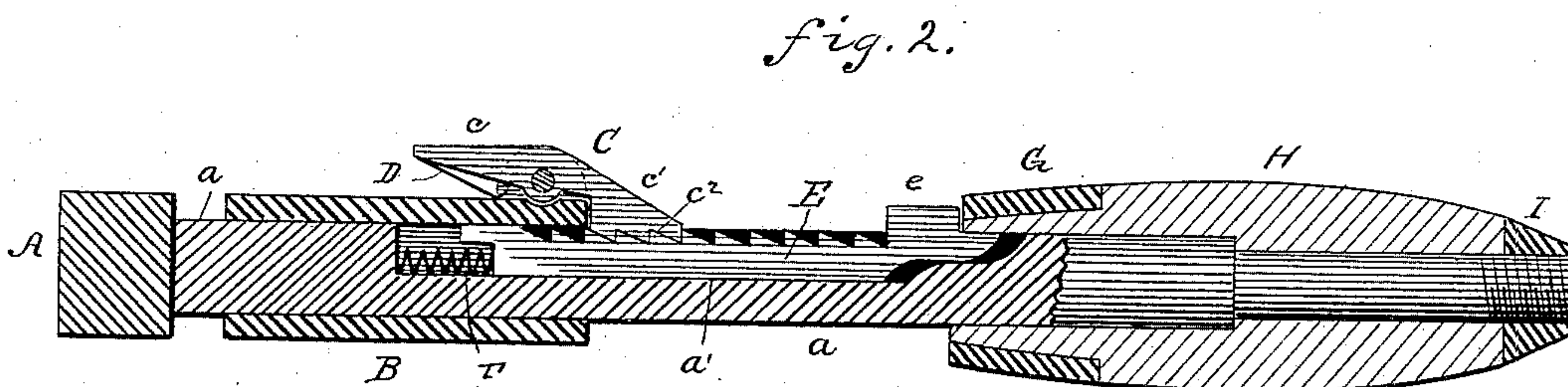
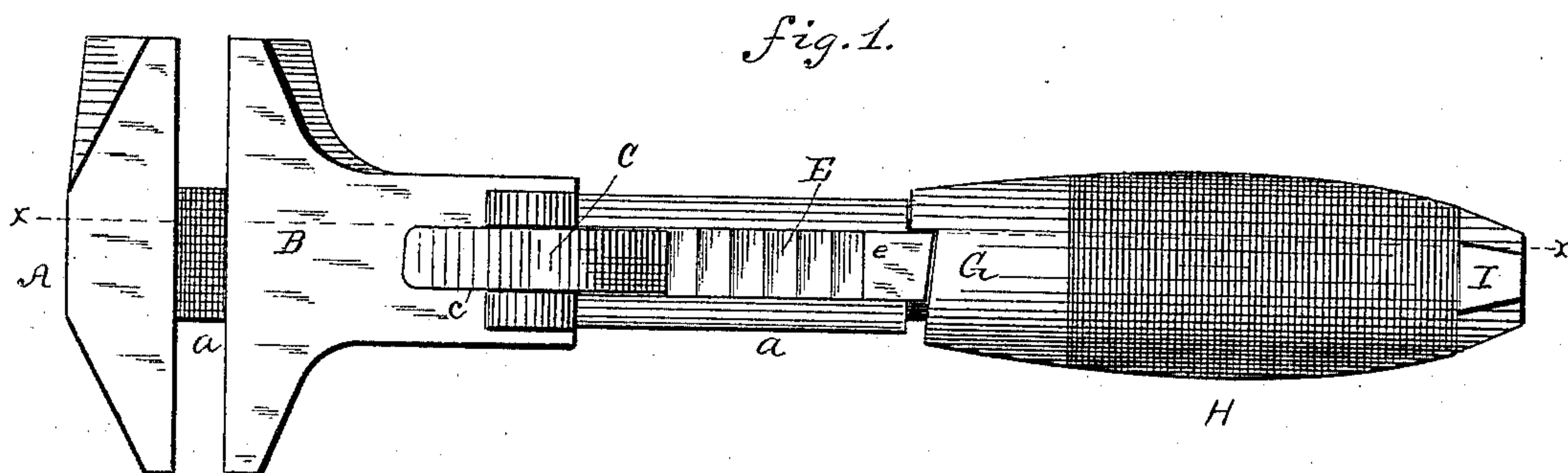


(No Model.)

A. K. SPAULDING.
WRENCH.

No. 395,595.

Patented Jan. 1, 1889.



Witnesses.

H. B. Brown

W. T. Purvis

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Per

Thomas T. Simpson

atty

UNITED STATES PATENT OFFICE.

ALBION K. SPAULDING, OF NORTH BELGRADE, MAINE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 395,595, dated January 1, 1889.

Application filed April 13, 1888. Serial No. 270,562. (No model.)

To all whom it may concern:

Be it known that I, ALBION K. SPAULDING, a citizen of the United States, residing at North Belgrade, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Sliding-Jaw Ratchet-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 and figures of reference marked thereon, which form a part of this specification.

The special object of the invention is to remove the objection now existing to sliding-jaw ratchets—namely, that they do not take a close grip of the nut, but always allow more or less of slack. In order to overcome this, I make the ratchet itself adjustable, so that after the detent on sliding jaw has taken its hold upon the tooth or teeth of ratchet the latter can be forced or jammed up to the detent, thus taking up all slack whatsoever.

Figure 1 of the drawings is a plan view of my improved wrench, and Fig. 2 a longitudinal median section on dotted line *xx* of Fig. 1.

In the drawings, A represents the stationary jaw provided with the arm *a*, on which slides the hollow movable jaw B, carrying the pivoted lever-detent C. Under one arm, *c*, of this detent is placed a spring, D, and under the other arm, *c'*, are formed one or more teeth, *c*², the end *c* being held up by the

spring D, so as to force down the toothed end *c'* upon the ratchet E. The latter is loose in the groove *a'* of the arm *a*, and is held by a spring, F, at one end against the metallic ferrule G on the inner end of the handle H, which is swiveled in the end threaded arm, *a*, and held by the nut I. The handle-ferrule G has a cam, *g*, which works against the lug *e* of the ratchet, so as to adjust and hold it to the detent. When the sliding jaw B has been moved up against the nut, the spring-detent C D automatically takes a bite on the ratchet, when a partial turn of the handle causes the jaws to embrace the nut without any slack whatever. The ratchet is on the side of the bar, instead of on the edge, where the most wear comes; also, the lever-detent is arranged very low, so as to be out of the way; also, the shoulder, which sets against the end of the sliding jaw, is made square, so that it takes most of the strain from the pin.

What I claim as new, and desire to protect by Letters Patent, is—

In wrenches, the swiveled handle H, carrying cam *g*, in combination with the loose ratchet E, held against said cam by a spring at its front end and provided with a lug, *e*, at the other end, as and for the purpose specified.

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

ALBION K. SPAULDING.

Witnesses:

EMERSON N. TRASK,
CHESTER A. MESSER.