

No. 679,562.

Patented July 30, 1901.

J. V. HULSE.
BENDING AND TWISTING TOOL.

(Application filed Jan. 15, 1900.)

(No Model.)

Fig. 1.

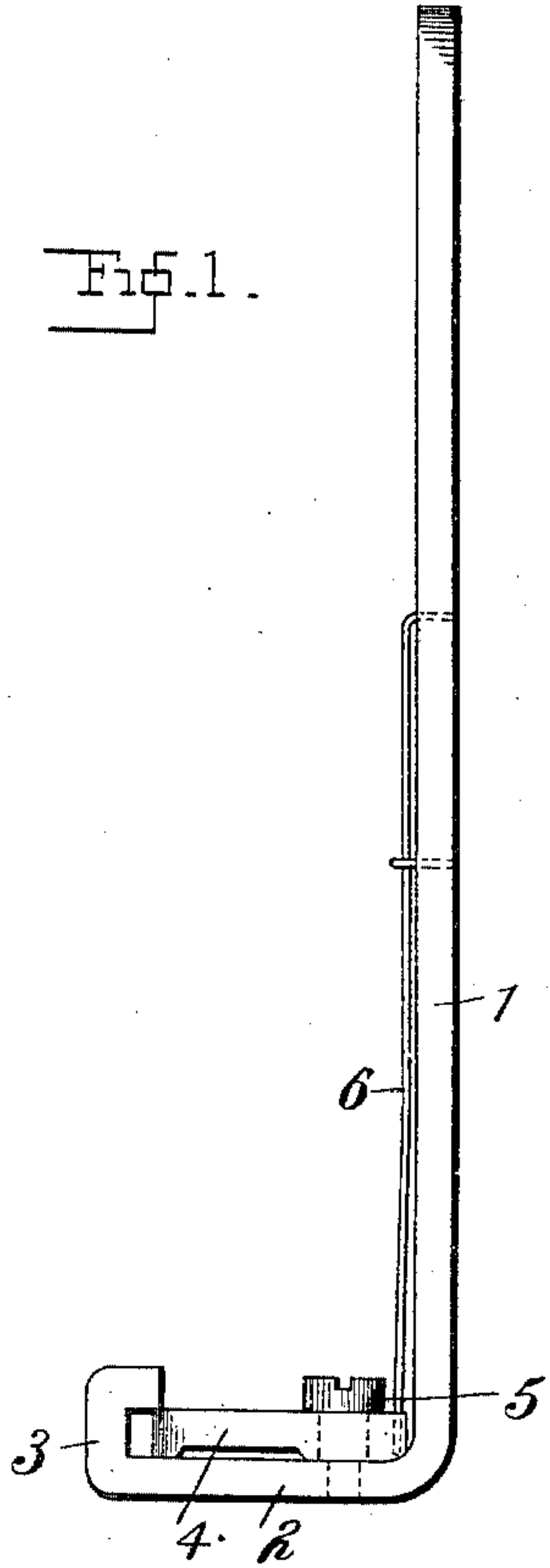


Fig. 2.

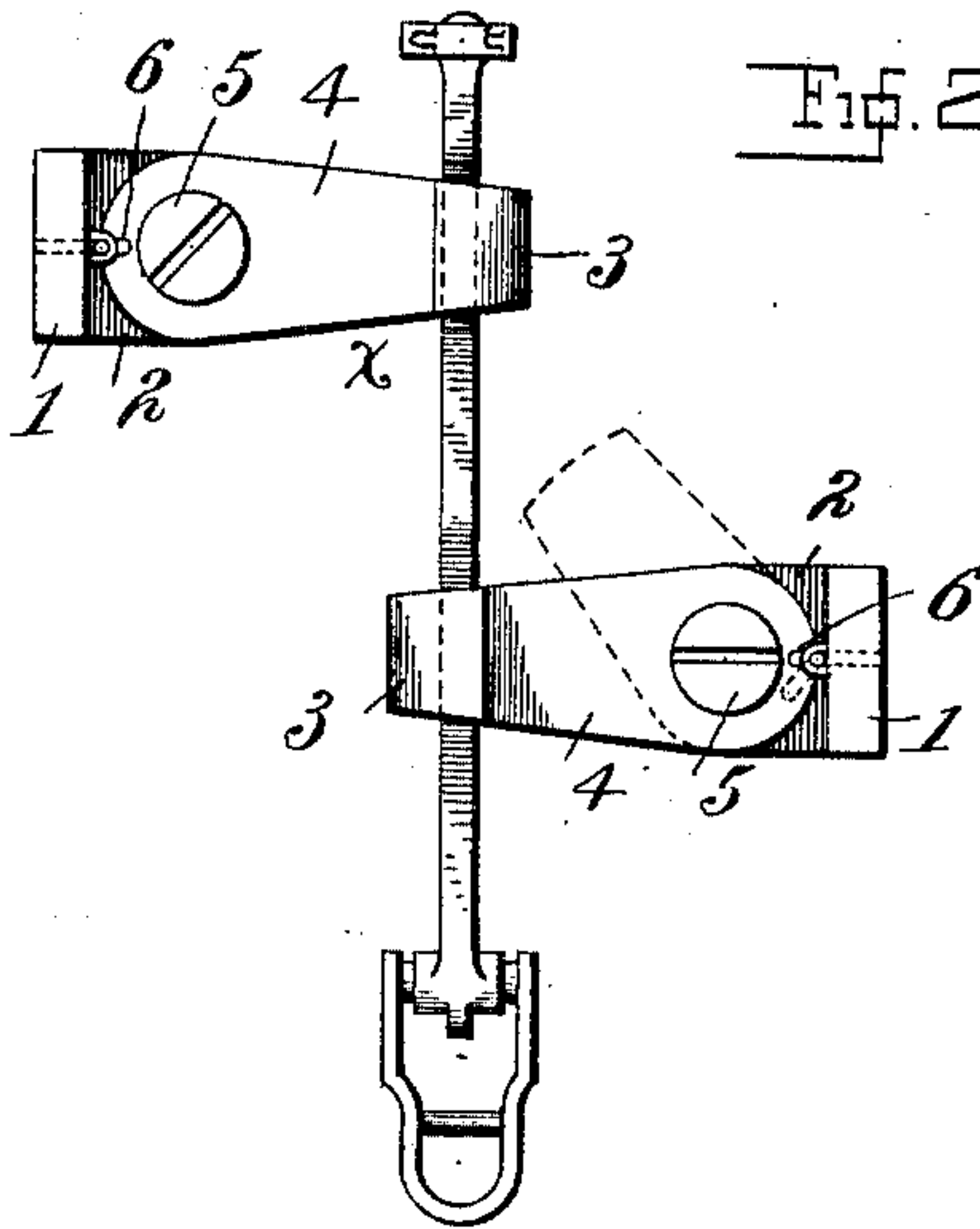


Fig. 3.

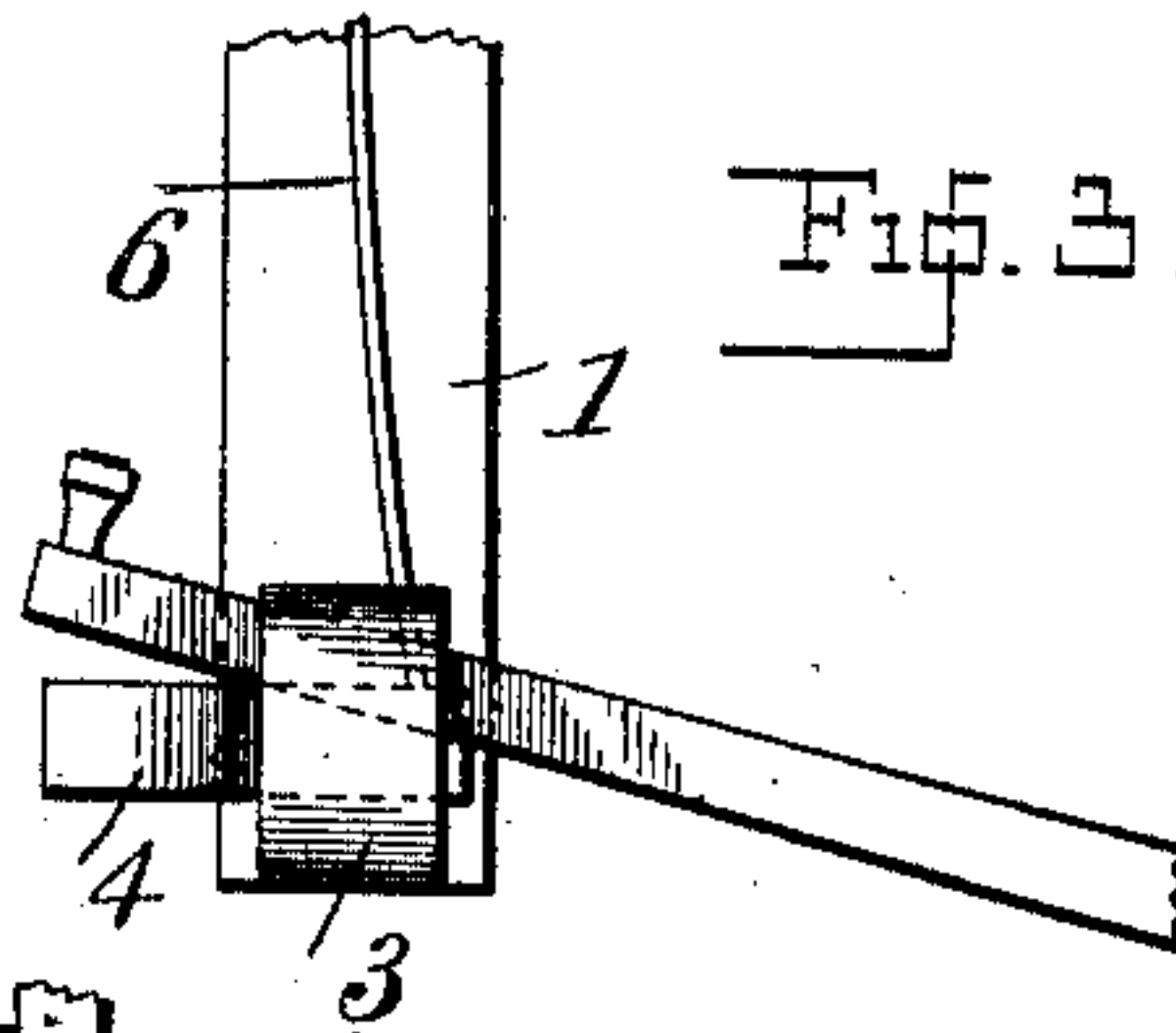


Fig. 4.

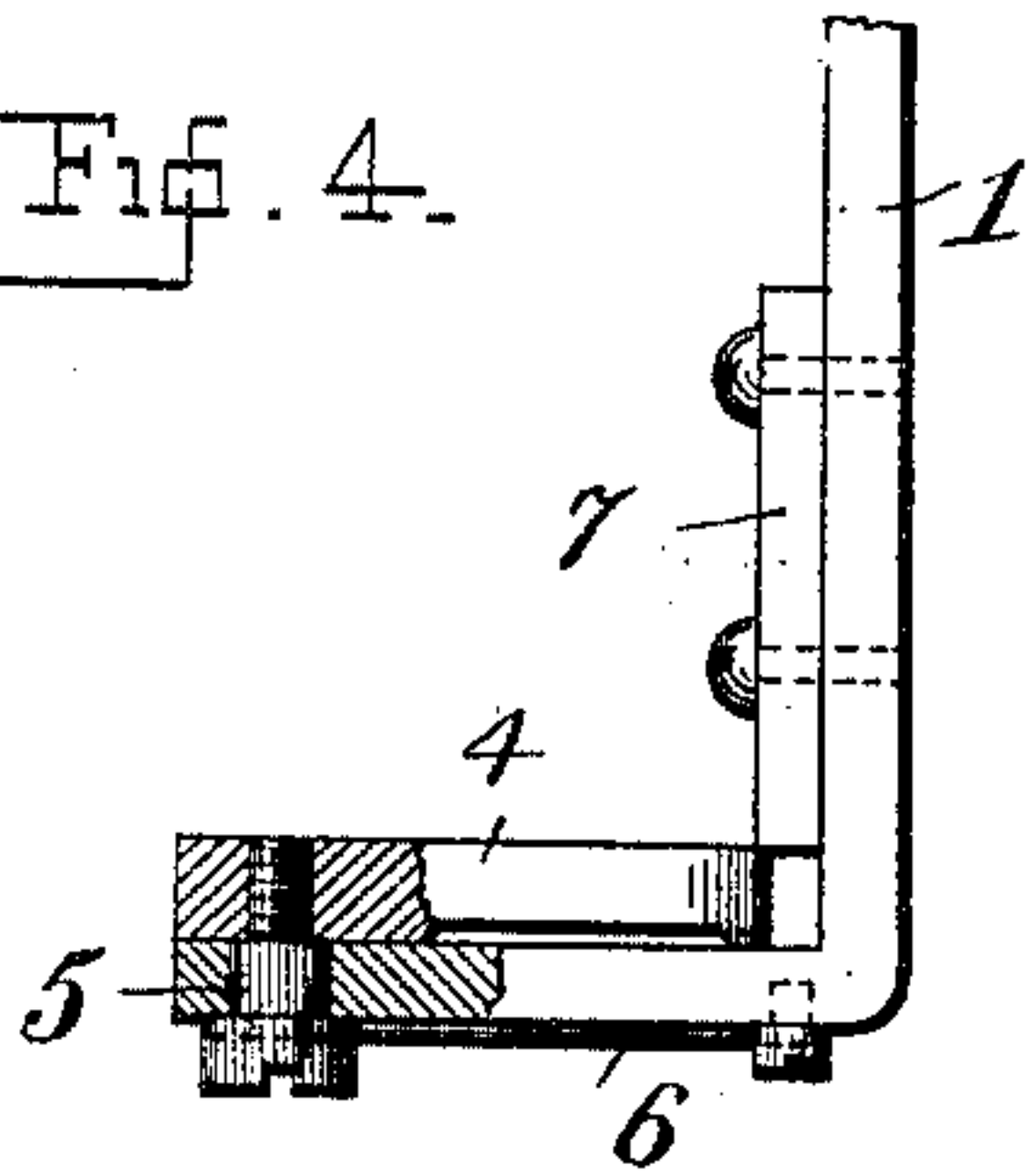
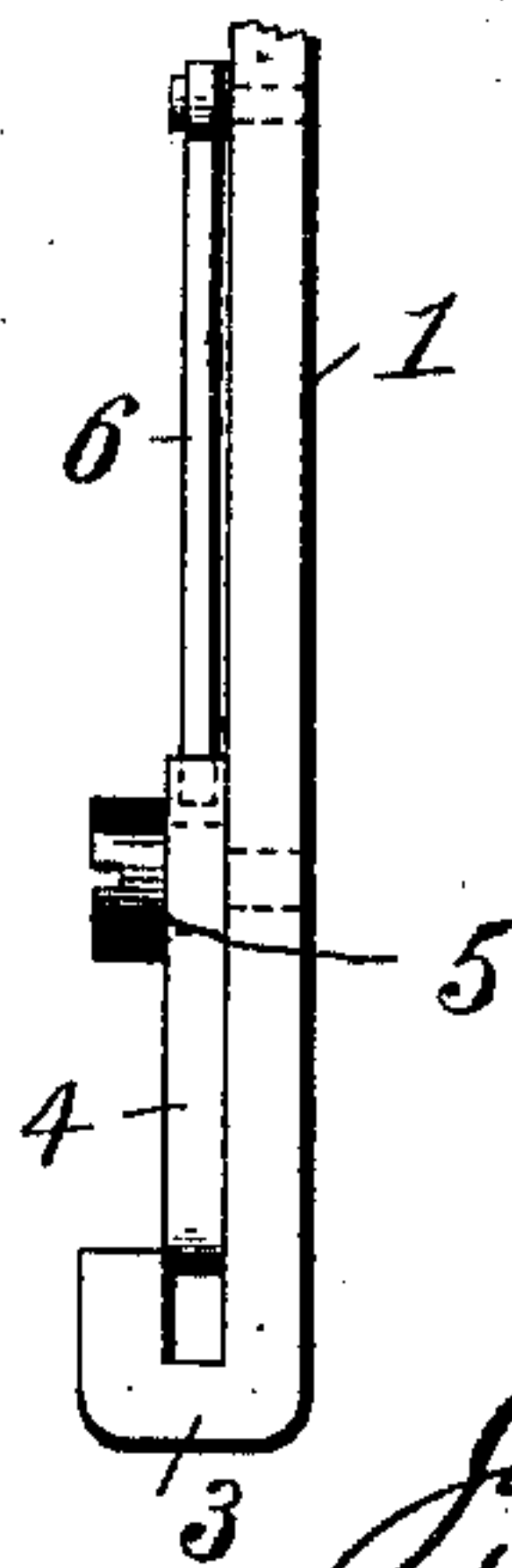


Fig. 5.



Witnesses.

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JAMES V. HULSE, OF BROOKLYN, NEW YORK.

BENDING AND TWISTING TOOL.

SPECIFICATION forming part of Letters Patent No. 679,562, dated July 30, 1901.

Application filed January 15, 1900. Serial No. 1,557. (No model.)

To all whom it may concern:

Be it known that I, JAMES V. HULSE, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bending and Twisting Tools, of which the following is a specification.

This invention relates to a bending and twisting tool especially adapted for use in manipulating type-bars. For this purpose I provide two tools of substantially identical construction which are adapted to be placed on a type-writer bar and to maintain their position on same while enabling the bar to be bent or twisted as required.

The invention comprises a handle or bar having a jaw or seat for the type-writer bar and a latch or dog which is adapted to swing automatically into position to lock the type-bar within the seat or clamp and to be displaced by pressure and frictional action of the type-bar, so as to permit of the removal of the tool from the type-bar or its attachment thereon without the use of a finger-latch, the said latch being, however, not affected by the bending and twisting operations of the tool.

In the accompanying drawings, Figure 1 is a side elevation of a tool embodying my invention. Fig. 2 is a plan view of a pair of tools in position on a type-bar. Fig. 3 is an end view of the tool, showing the manner of inserting the bar. Figs. 4 and 5 show modifications.

Referring to Figs. 1 and 2, the tool comprises a handle or bar 1, having, preferably, a foot 2, bent at right angles to the handle proper, with the jaw, seat, or hook 3 formed on the outer end of this foot 2. A latch 4, pivoted at 5 on the foot 2, engages at its end within the jaw or hook 3, so as to leave between the latch and the jaw a space adapted to substantially fit the type-bar. The shape and size of this space is of course dependent on that of the type-bar, and in general a pair of tools adapted for use with a single type-bar would have this space of somewhat different size on the two tools to fit, respectively, the smaller and larger parts of the type-bar. A spring 6, fastened to the handle 1, is connected to the latch 2, so as to hold it in middle po-

sition—that is to say, with its end in engagement with the hook. If the tool as described be placed with its foot below a type-bar, (indicated at x in Fig. 2,) with the lower edge of the bar lying obliquely on the top of the latch, as shown in Fig. 3, then by the combination of a slight pressure and a sliding endwise movement the latch may readily be opened without touching it with the fingers until it reaches the position shown in dotted lines in Fig. 2, and the bar may then be slipped into place in the jaw or clamp. To withdraw the tool, it is pressed so as to force the end of the latch against the type-bar and is then slid longitudinally along the type-bar, so as to turn the latch to the position shown in dotted lines in Fig. 2, when the tool may be disengaged from the type-bar. Two tools having been placed on the type-bar, as indicated in Fig. 2, it is clear that the respective handles thereof are clamped to the type-bar at two different places in such manner that the type-bar may be readily either twisted or bent, or both, by proper manipulation of the handles. In such bending and twisting movements the latch will remain unaffected, it being understood that the bending movement referred to will generally be in a vertical plane, horizontal adjustments being otherwise attended to. If desired, the latch 4 may be pivoted near the outer end of the foot 2, as shown in Fig. 4, the seat or receiving-space for the type-bar being formed between the inner end of the latch, the corner of the handle 1 and foot 2, and a step or plate 7, secured to the handle. The operation of this device would be identical with that of the device above described.

Fig. 5 shows another modification wherein the handle is extended straight—that is, the part above designated as the foot is made in line with the handle proper—the clamping-jaw 3 being formed on the end of this extended portion and the pivoted latch 4 being maintained in normal position by a leaf-spring 6. The shape of the jaw will, of course, be different in this case to receive the type-bar edgewise instead of sidewise. This tool is entered on the type-bar by placing its latch sidewise and obliquely against the said bar and sliding longitudinally of the bar.

Other variations of the principle may sug-

gest themselves, the essential point being that the latch is so arranged as to be displaceable from engaging position by a movement longitudinally of the type-bar, such a
5 movement not being included in the ordinary bending and twisting operations. This requires that the pivot or axis of the latch should be transverse to the direction of the bar.

10 Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. A bending and twisting tool for bars comprising a handle with a jaw adapted to
15 receive the bar, a latch pivoted transversely to the direction of the bar and adapted to engage the bar when inserted in said jaw, said

latch being displaceable by relative movement of the bar and latch longitudinally of the bar, and means for holding the latch in 20 engaging position.

2. A bending and twisting tool for bars comprising a handle with a jaw adapted to receive the bar, a latch pivoted transversely to the direction of the bar and adapted to en- 25 gage the bar when inserted in said jaw, said latch being displaceable by relative movement of the bar and latch longitudinally of the bar, and a spring for holding the latch in engaging position.

JAMES V. HULSE.

Witnesses:

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