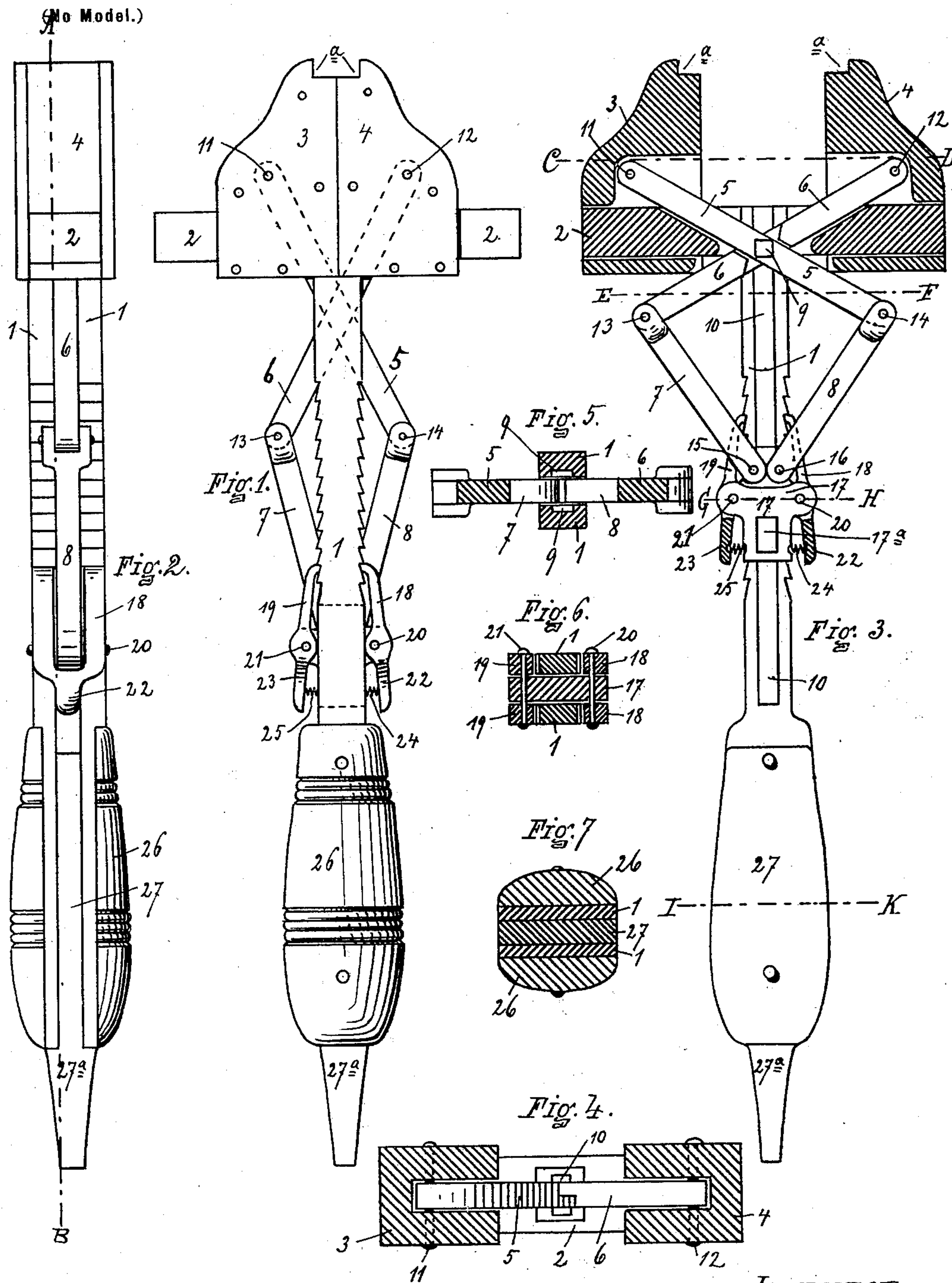


T. A. HOBBS.  
WRENCH.

(Application filed Jan. 16, 1901.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

THEODORE A. HOBBS, OF HINCKLEY, NEW YORK, ASSIGNOR OF ONE-HALF  
TO WILLIAM T. FINCH, OF NORTHWOOD, NEW YORK.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 671,419, dated April 2, 1901.

Application filed January 16, 1901. Serial No. 43,551. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE A. HOBBS, of Hinckley, in the township of Trenton, in the county of Oneida and State of New York, have  
5 invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable  
10 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 part of this specification.

The object of my present invention is to provide an adjustable-jaw wrench opening in the  
15 direction of the length of the handle and adapted for general and special use.

In the drawings, Figure 1 shows a side elevation of the wrench with the jaws closed. Fig.  
20 2 shows an edge view with the jaws closed. Fig. 3 is a sectional view taken on line A B of Fig. 2 with the jaws in open position. Fig. 4 shows a section taken on line C D of Fig. 3. Fig. 5 shows a section taken on line E F of  
25 Fig. 3. Fig. 6 shows a section taken on line G H of Fig. 3. Fig. 7 shows a section taken on line I K of Fig. 3.

Referring to the reference letters and figures in a more particular description, 1 indicates the handle portion of the wrench, which  
30 is provided with a cross or T head 2, rigidly secured at one end of the handle portion. On the cross or T head portion 2 are arranged the jaws 3 and 4, each adapted to slide toward and from each other. For operating  
35 the jaws there is provided a lazy-tongs device, consisting of the cross-levers 5 and 6 and the links 7 and 8. The cross-levers 5 and 6 are pivoted at 9 to each other, and the head  
40 of this pivot 9 projects on either side and engages in grooves 10 on the inner sides of the two parts of the handle portion 1. It will be understood, of course, that the handle portion 1 is slotted throughout the greater portion of  
45 its length and that the lazy-tongs mechanism operates between the two parts of the handle portion. The outer ends of the levers 5 and 6 are pivoted to the jaws 3 and 4 at the pivots 11 and 12, respectively. The other ends  
50 of these levers 5 and 6 are jointed at 13 and 14 to the links 7 and 8, respectively. It will be observed that the jaws 3 and 4 are pro-

vided with recesses on their under side to receive the ends of the levers 5 and 6 and that the cross or T head 2 is also slotted or re-  
55 cessed through a portion of its length to receive the levers 5 and 6. The ends of the links 7 and 8 are hinged at 15 and 16, respectively, to the sliding head 17, located between the parts of the handle portion 1. It will be  
60 observed that any force tending to separate the jaws 3 and 4 tends to draw the sliding head 17 toward the cross or T head 2. In order, therefore, to lock the jaws, there are provided on either side pawls or ratchets 18  
65 and 19, pivoted at 20 and 21, respectively, in projecting ears on the sliding head 17. These pawls are adapted to engage in ratchet-teeth formed in the edges of the handle portion 1, as shown, and are forked at one end, as  
70 shown, to adapt them to engage the teeth cut in each of the parts of the handle portion 1. The pawls are provided with the projecting thumb-pieces 22 23, respectively, by means of which the operator can throw the pawls  
75 out of engagement with the ratchet-teeth, and the pawls are held in engagement with the ratchet-teeth by the springs 24 and 25.

Adjacent to the end of the handle there are applied pieces 26 26, which form a hand-grip  
80 for the operator. At the end of the handle there is introduced the piece 27, which serves to separate the handle portions 1 at this end and also includes a square projecting portion 27<sup>a</sup>, similar to the end of a bit and adapted  
85 to be received in a bit-stock. The faces of the jaws are preferably provided with a slight recess *a a*, whereby the wrench is adapted to engage with the nut "end on," so that the nut can be engaged and turned while the  
90 wrench is held in a bit-stock.

The operation of the wrench is simple and readily understood. It may be well, how-  
ever, to note that the projecting ends of the pivot 9, engaging in the slots 10, serve to cause  
95 both of the jaws to move toward and from the axial line of the wrench simultaneously, which would not be the case if some provision were not made in the nature of the slot and engaging pivot.

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

1. In a wrench, the combination of the handle having a cross or T head, a pair of jaws

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slidingly mounted on the T-head, a cross-head longitudinally movable of the handle, a lazy-tongs connection between the said cross-head and the jaws and means for securing the cross-head, substantially as set forth.

2. The combination in a wrench of a slotted handle, a cross or T head secured to the end of the handle, a pair of jaws slidingly mounted on the cross or T head, a longitudinally-movable piece mounted in the slotted handle, a lazy-tongs connection between the movable and set jaws and means for securing the movable piece, substantially as set forth.

3. The combination in a wrench of the handle consisting of two parallel portions, a cross or T head secured on the end thereof, a pair

of jaws slidingly mounted on said cross or T head, a sliding piece located between the parts of the handle, a lazy-tongs connection between the jaws and said sliding piece, the pivot of the lazy-tongs engaging in a slot in the handle, ratchet-teeth in the handle and pawls mounted on said sliding piece and engaging in the teeth, substantially as set forth.

In witness whereof I have affixed my signature, in presence of two witnesses, this 31st day of December, 1900.

THEODORE A. HOBBS.

Witnesses:

E. WILLARD JONES,  
S. A. BROWN.