

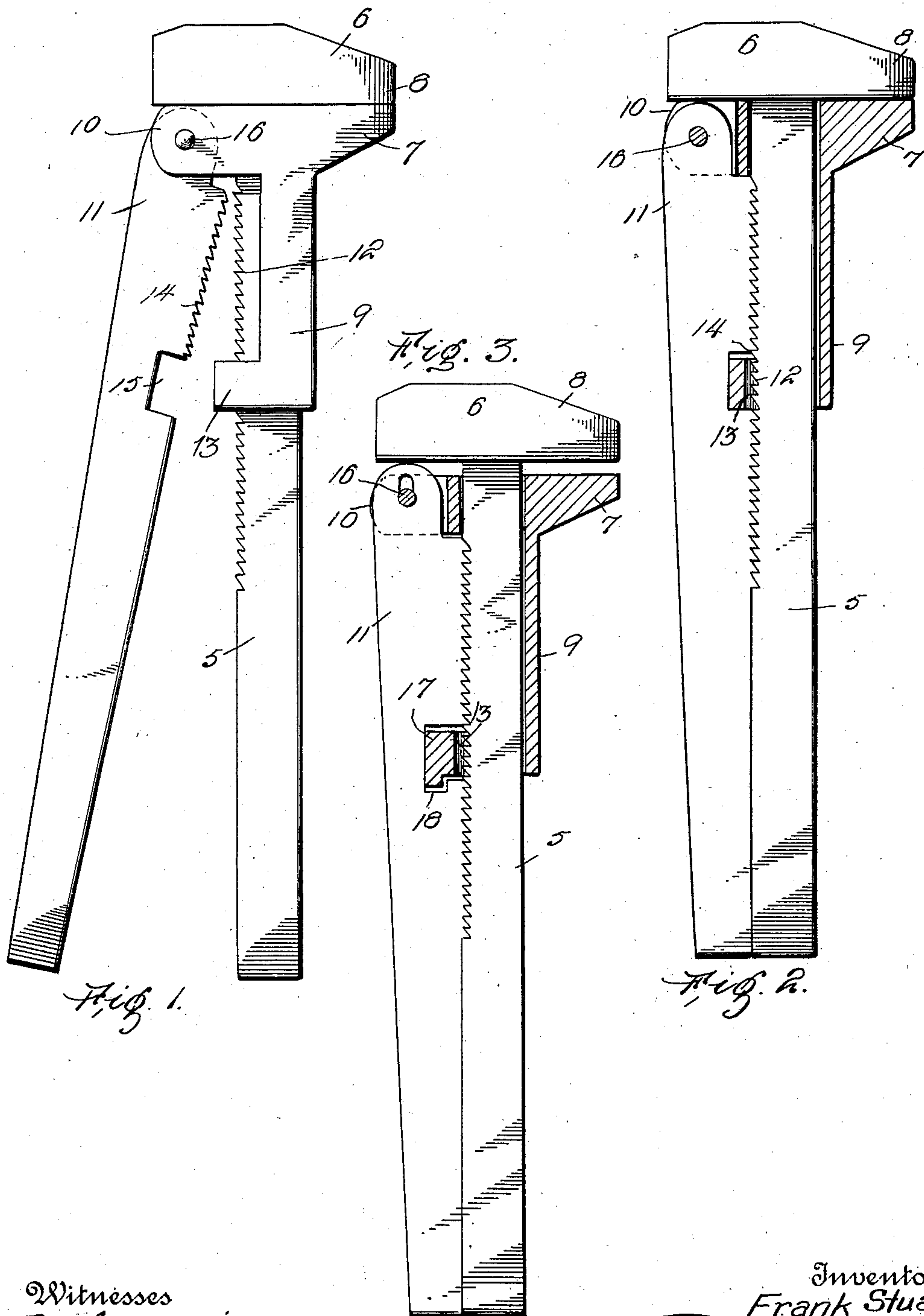
No. 749,908.

PATENTED JAN. 19, 1904.

F. STUART.  
WRENCH.

APPLICATION FILED MAY 11, 1903.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK STUART, OF RITZVILLE, WASHINGTON.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 749,908, dated January 19, 1904.

Application filed May 11, 1903. Serial No. 156,632. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK STUART, a citizen of the United States, residing at Ritzville, in the county of Adams, State of Washington, have invented certain new and useful Improvements in Wrenches; and I do hereby 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.

This invention relates to the class of monkey-wrenches; and it has for its object to provide a wrench wherein the movable jaw will be held positively in its different adjusted positions and in which the locking mechanism for holding the movable jaw may be easily and quickly engaged and disengaged.

A further object of the invention is to provide a wrench wherein the sliding jaw will be supported not alone by its pivotal connection with the locking-lever, but by the recess 15, so that the wrench will have a maximum strength.

A further object of the invention is to provide a wrench in which the desired results will be attained with a minimum of parts.

In the drawings forming a portion of this invention, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the wrench with a locking-lever swung out of engagement ready to shift the movable jaw. Fig. 2 is a view showing the stem and fixed jaw with the locking-lever in elevation and the movable jaw in section, the locking-lever being in engaging position. Fig. 3 is a view similar to Fig. 2, showing a modification.

Referring now to the drawings, the present wrench consists of a stem 5, which is rectangular in cross-section, and at one end of which is the fixed head or jaw 6, which projects at both sides of the stem in the usual manner, with its lower face at right angles to the stem. Upon the stem is slidably mounted the movable jaw comprising an upper gripping portion 7, which coöperates with the gripping portion 8 of the fixed jaw, and the depending body portion 9. At the upper end of the movable jaw and at the opposite side of the

stem of the wrench from the gripping portion 7 are the laterally-spaced ears 10, between which is pivoted a locking-lever 11 for movement into and out of position against the face of the stem 5. The face of the stem 5 adjacent to the locking-lever is provided with teeth 12, which are projected in the direction of the head 6 or jaw, and the corresponding side portion of the body of the movable jaw is cut away from the ears to a point near the opposite end of the body to expose the teeth. Below the cut-away portion of the sliding jaw is a loop 13, which passes over the teeth of the stem. The sliding jaw has a longitudinal passage through it with which the cut-away portion of the jaw communicates. The upper end portion of the locking-lever has teeth 14 upon its face adjacent to the teeth of the stem, the teeth 14 being projected downwardly and formed to mesh with the teeth of the stem when the locking-lever is swung into position to lie against the stem. In the face of the locking-lever, just below the teeth thereof, is formed a recess 15, which receives the loop at the lower end of the sliding jaw when the lever is in locking position, at which time the lower end of the loop rests against the bottom of the recess, so that the strain upon the sliding jaw is not imparted to the lever entirely through the pivot 16, that connects the lever with the ears of the sliding jaw, but in large part is directly imparted to the locking-lever through the loop.

During the operation of the wrench the locking-lever is grasped with the stem of the wrench or handle, so that the lever is held in engaging position; but to hold the lever positively against outward movement the upper end of the lever that receives the pivot-pin may be slotted, so that the lever will have a degree of lost motion longitudinally with respect to the sliding jaw, so that the lug 17 at the lower end of the sliding jaw may engage in the socket 18 in the lever and hold the latter against outward movement, as shown in Fig. 3 of the drawings.

It will be understood that the present wrench consists of but four parts, one of which is the pivot, that it is strong and durable, that the



movable jaw is easily and quickly released and shifted, and that the parts may be made at a low cost and easily and quickly formed.

What is claimed is—

5 1. A wrench comprising a stem having a fixed jaw at one end and rack-teeth projecting from one face below the jaw, a sliding jaw mounted upon the stem, said jaw having laterally-spaced ears at its upper end and a loop  
10 encircling the stem at its opposite end, said jaw being cut away between the loop and ears to expose the teeth, and a locking-lever pivoted at its upper end between the ears and having rack-teeth disposed to engage the teeth  
15 of the stem, said lever having a recess below its teeth disposed to receive snugly the loop of the sliding jaw.

20 2. A wrench comprising a stem having a fixed jaw at one end and rack-teeth projecting from its face below the jaw, a sliding jaw

mounted upon the stem and having laterally-spaced ears at its upper end and a loop embracing the stem at its opposite end, said jaw being cut away between the loop and ears to expose the teeth and a locking-lever pivoted 25 at its upper end between the ears and having a degree of longitudinal lost motion, said lever having rack-teeth disposed to engage the teeth of the stem and a recess below its teeth to receive the loop of the sliding jaw, the lever having a socket in one end of its recess 30 and the loop having a lug disposed to engage the socket when the lever is moved longitudinally with respect to the sliding jaw.

In testimony whereof I affix my signature 35 in presence of two witnesses.

FRANK STUART.

Witnesses:

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