(No Model.)

D. A. KERSHNER.

WRENCH.

No. 457,050. Patented Aug. 4, 1891.

Fig. 1.

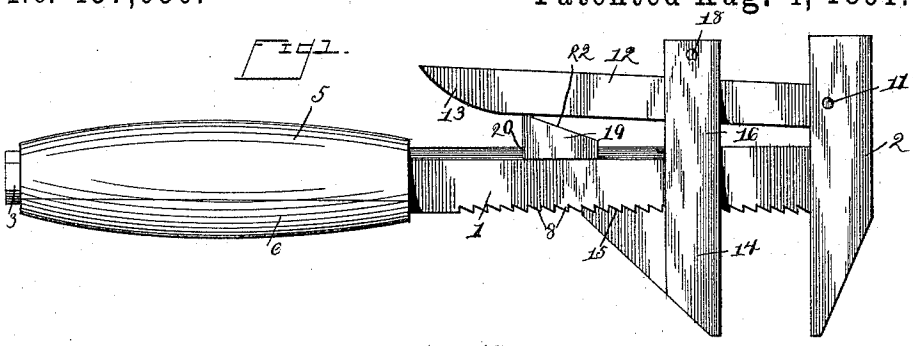


Fig. 2.

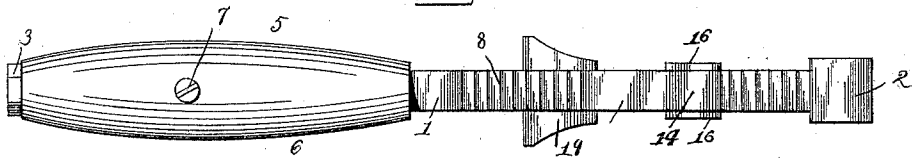


Fig. 3.

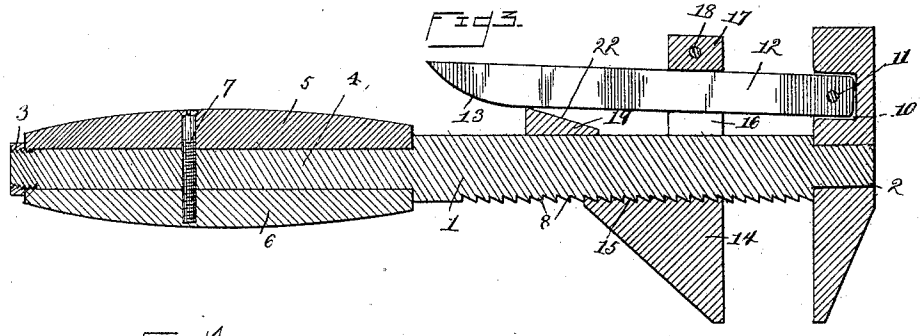


Fig. 4.

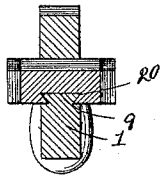


Fig. 5.

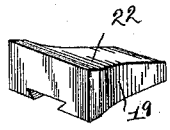
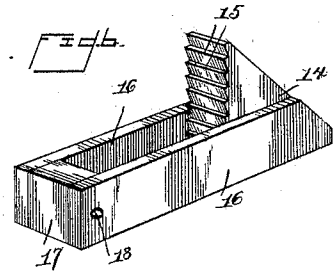


Fig. 6.



Witnesses:
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By his Attorneys,
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UNITED STATES PATENT OFFICE.

DANIEL A. KERSHNER, OF JONESBOROUGH, ARKANSAS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 457,050, dated August 4, 1891.

Application filed March 25, 1891. Serial No. 386,347. (No model.)

To all whom it may concern:

Be it known that I, DANIEL A. KERSHNER, a citizen of the United States, residing at Jonesborough, in the county of Craighead and State of Arkansas, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to improvements in wrenches; and the objects in view are to provide a wrench of extremely simple, cheap, and durable construction that is capable of adjustment with great facility to adapt it to variously-sized nuts.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Fig. 2 is a front elevation. Fig. 3 is a vertical longitudinal section. Fig. 4 is a transverse section. Fig. 5 is a detail in perspective of the sliding wedge or lock. Fig. 6 is a detail in perspective of the movable jaw.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ a rectangular shank 1, at the upper end of which is formed a transverse stationary head or jaw 2, and at the lower end of said shank, which is somewhat reduced, is located a nut or burr 3. The reduced portion of the shank is received by a groove 4, of a handle-section 5, and an opposite handle-section 6 clamps the shank in position by means of screws 7. The front face of the shank is provided with a series of teeth 8, inclined toward the stationary head or jaw 2, and the opposite sides near the rear edge of the shank are provided with dovetailed grooves 9. In the under side of the head or jaw 2, near the rear end thereof, is formed a recess 10, in which is pivoted, as at 11, the upper reduced end of a lever 12, the lower end of which is beveled upon its inner side, as at 13, and extends down to within a short distance of the handle.

14 designates a triangular jaw, the rear face of which is provided with a series of teeth 15, oppositely disposed to the teeth 8 of the shank, and from the opposite sides of the jaw there extends rearwardly a pair of straps or arms 16, which embrace the shank and also the lever 12 and are connected at their rear ends in rear of said lever by means of a cross-piece 17, which latter is pivoted by a pin 18 between said straps.

19 designates a sliding block, the inner face of which is provided with a dovetailed recess 20, which fits the dovetailed grooves 9 of the shank, and said block is further provided with an outer inclined face 22, adapted to operate against the inner face of the lever 12.

This completes the construction of the wrench, and the operation of the same, though readily understood from the foregoing description, may be briefly stated as follows: By moving the locking-block down upon the shank the lever 12 falls at its free end toward the shank and permits the operator to move the movable jaw along the shank until it assumes a proper relation with the fixed jaw to accommodate the nut to be operated upon. The locking-wedge is now forced along the shank toward the pivot of the lever 12, thus spreading the latter against the inner face of the pivoted connecting-piece 17 of the movable jaw and drawing the teeth of said movable jaw into engagement with the teeth of the shank. The two jaws are now locked in a set position and the wrench is ready for operation. It will be observed that by withdrawing the wedge-shaped lock the movable jaw may be readjusted to other positions and locked.

From the above construction it will be seen that the wrench is very simple in its construction, consists of few parts easily constructed and assembled, and may be adjusted with great facility and dispatch.

Having described my invention, what I claim is—

1. In a wrench, the combination, with the rectangular shank having its front face toothed and at opposite sides near its rear edge provided with dovetailed grooves, said shank terminating at its upper end in a fixed jaw or head provided in rear of the shank with a recess, of a movable jaw having its inner surface toothed to engage the tooth of the shank and having rearwardly-disposed straps connected at their rear ends and embracing the shank, a lever pivoted at its upper end to the recess of the fixed jaw and de-

pending loosely between the straps, and the wedge-shaped locking-block recessed to fit the grooves of the shank, substantially as specified.

2. In a wrench, the combination, with the rectangular shank having its front face toothed and at opposite sides near its rear edge provided with dovetailed grooves, said shank terminating at its upper end in a fixed jaw or head, provided in rear of the shank with a recess, of a movable jaw located at the front of the shank and having its inner surface toothed to engage the teeth of the shank, the opposite straps rearwardly extended from the movable jaw, the cross-piece pivotally connecting the straps in rear of the shank, the lever pivoted in the recess of the fixed jaw, depending between the straps and having its lower inner face beveled, and the block grooved to fit the rear edge of the shank and having an inclined outer face, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DANIEL A. KERSHNER.

Witnesses:
J. R. SMITH,
J. V. BELL.