

(No Model.)

M. K. FLYE.  
WRENCH.

No. 574,724.

Patented Jan. 5, 1897.

Fig. 1.

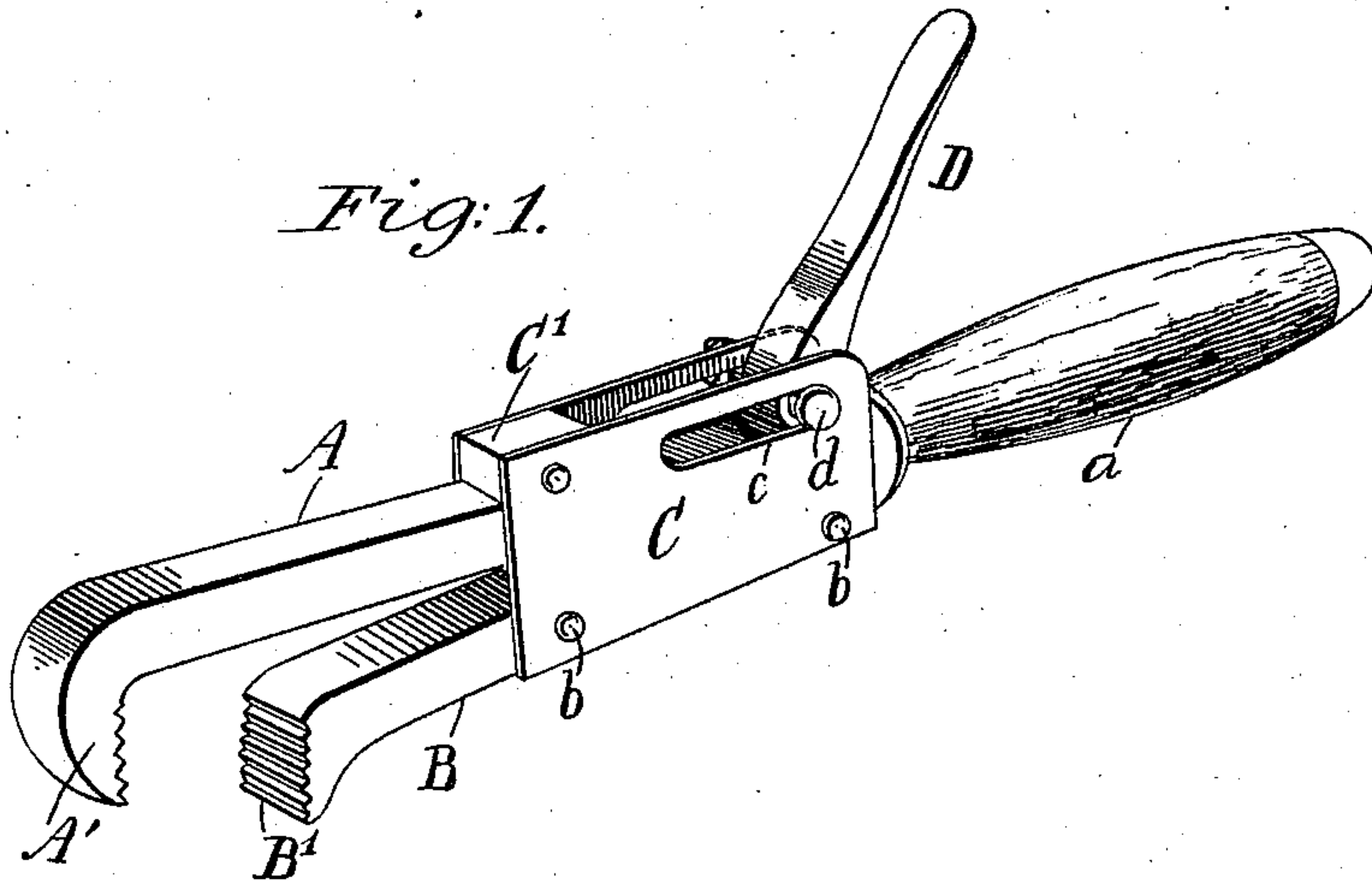


Fig. 2.

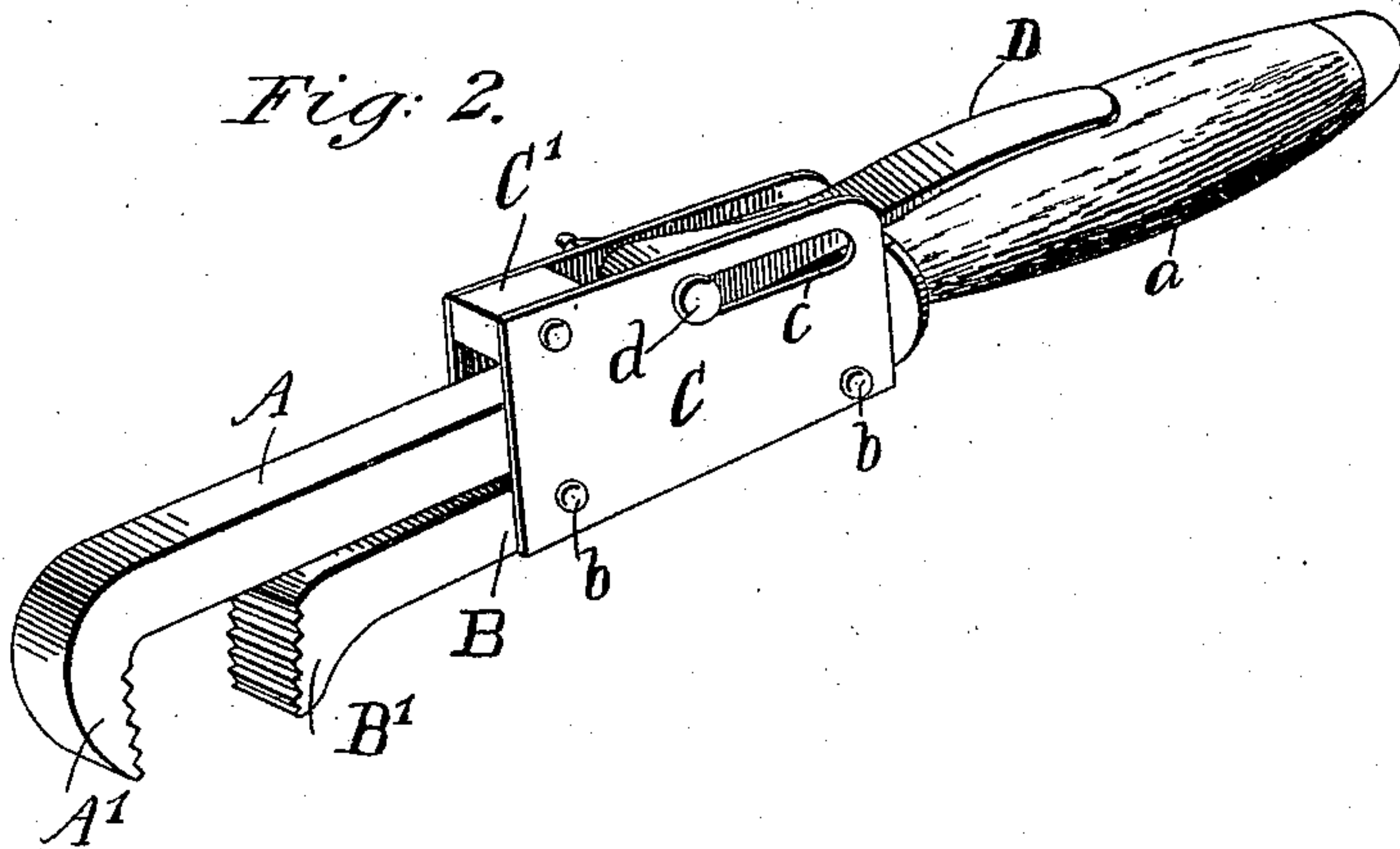
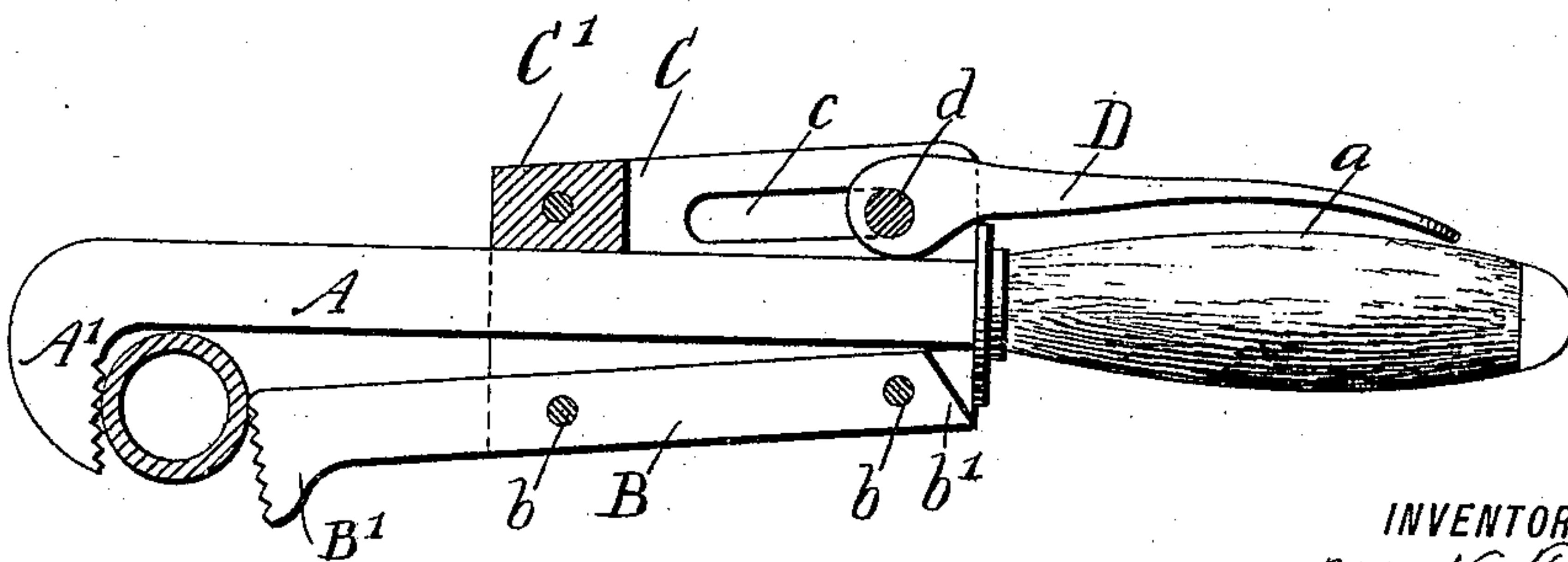


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MURAT K. FLYE, OF SHARPSBURG, TEXAS, ASSIGNOR OF ONE-HALF TO  
SIDNEY GAIL BORDEN, OF SAME PLACE.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 574,724, dated January 5, 1897.

Application filed March 16, 1896. Serial No. 583,403. (No model.)

*To all whom it may concern:*

Be it known that I, MURAT K. FLYE, of Sharpsburg, in the county of San Patricio and State of Texas, have invented certain new and useful Improvements in Wrenches, of which the following is a full, clear, and exact description.

The object of the invention is to provide a wrench of simple and strong construction and capable of use either as a pipe-wrench or monkey-wrench; and a further object is to provide a novel and convenient adjustment for the movable jaw.

The invention consists in the novel features hereinafter particularly described, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a wrench constructed in accordance with my invention, the movable jaw being shown adapted for use as a pipe-wrench. Fig. 2 is a perspective view showing the movable jaw in position to adapt the wrench for use as a monkey-wrench and locked in such position; and Fig. 3 is a side elevation, partly in section, illustrating the use of the wrench as a pipe-wrench.

The main shank or body A has a suitable handle *a* and a fixed jaw A', the latter being preferably at right angles to the shank.

To the shank A is slidably connected the shank B, provided with the jaw B', also at right angles to its shank, the connection with shank A being effected by a yoke C, to which the shank B is rigidly secured, as by bolts *b*.

The yoke C in the present instance consists of two side plates, as shown, spaced by shank B at the bottom and by a block C' at the top above shank A. The plates forming the yoke C are formed with longitudinal slots *c*, and in these slots a cam-lever D is movable, being held between the said plates by a bolt *d*, which pivots said lever.

When the lever is located at the rear end of the slots *c*, that is, at a point farthest removed from the jaw B', as in Figs. 1 and 3, the wrench is very efficient as a pipe-wrench. It will be seen that with the parts thus adjusted, the yoke C, carrying the shank and

movable jaw B B', is permitted a considerable rocking movement with the cam-lever as a center, the rocking movement being facilitated by the beveled rear end of *b'* of the shank B. With the parts in about the position shown in Fig. 1, the jaws being at considerable of an angle to each other, the wrench is approximately adjusted to the pipe to be wrenched, and upon throwing down the cam-lever the shank B is brought slightly closer to the shank A, thus bringing the jaws somewhat nearer parallelism and thereby effecting a closer adjustment, as indicated in Fig. 3. When, now, the wrench is thrown down to grasp the pipe, a firm engagement with the latter is effected, owing to the nearer approach of the jaws to parallelism, as will be readily understood. A quick disengagement is effected by raising the cam-lever.

With the cam-lever shifted to the forward end of the slots *c*, as in Fig. 2, the sliding shank B is brought close to the main shank, and after adjusting the wrench to a nut or the like the lever is thrown down, clamping the movable jaw in place, with both jaws at right angles to the body of the wrench and in parallelism with each other. Thus an effective monkey-wrench is provided and one capable of an exact adjustment. In this position it will be seen no rocking movement of the movable jaw can occur.

The opposing faces of the jaws are oppositely serrated, that is, the teeth of one alternate with the teeth of the other.

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

1. A wrench, comprising a fixed jaw, a movable jaw loosely mounted on the fixed jaw, and a clamping device for locking the movable jaw in position on the fixed jaw, said clamping device being adjustable longitudinally of the movable jaw and serving when in one position as fulcrum for said movable jaw, substantially as described.

2. A wrench, comprising a fixed jaw, a movable jaw loosely and slidably mounted on the fixed jaw, and a clamping device carried by the movable jaw for locking it in position on the fixed jaw, said clamping device having sliding movement and serving when in one posi-



tion as a fulcrum for the movable jaw, whereby the said movable jaw may be locked rigid or to rock, substantially as described.

3. A wrench, comprising a fixed jaw, a movable jaw on the shank of the fixed jaw, and a longitudinally-adjustable device constituting in one position a rocking point for the movable jaw, substantially as and for the purpose set forth.

10 4. A wrench, comprising a fixed jaw, a movable jaw on the shank of the fixed jaw, and a device longitudinally adjustable along the movable jaw and independently thereof, said device constituting in one position a rocking  
15 point for the movable jaw, substantially as described.

5. A wrench having one of its jaws slidably and pivotally mounted and having a cam-

lever for locking the said jaw in position, the cam-lever having also a sliding movement to  
20 adjust its position, substantially as described.

6. A wrench, comprising a fixed jaw, a yoke loosely mounted on the shank of the fixed jaw, a jaw secured to said yoke, and a cam-lever mounted to slide in longitudinal ways  
25 in the yoke, substantially as described.

7. A wrench, comprising a fixed jaw, a yoke loosely mounted on the shank of the fixed jaw and provided with longitudinal slots, a jaw rigidly secured to the yoke, a cam-lever,  
30 and a bolt passing through the cam-lever and slots of the yoke, substantially as described.

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Witnesses:

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