

(No Model.)

W. O. PARKER.
ADJUSTABLE WRENCH.

No. 603,575.

Patented May 3, 1898.

Fig. 1.

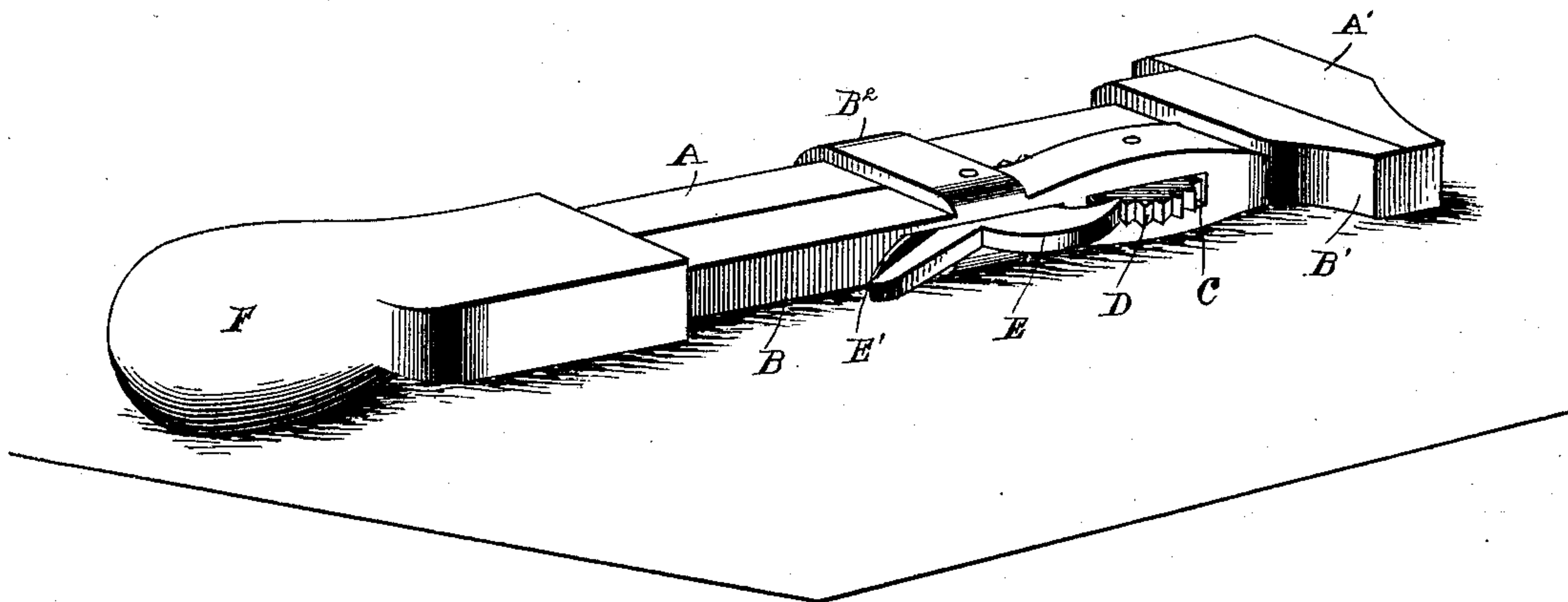


Fig. 2.

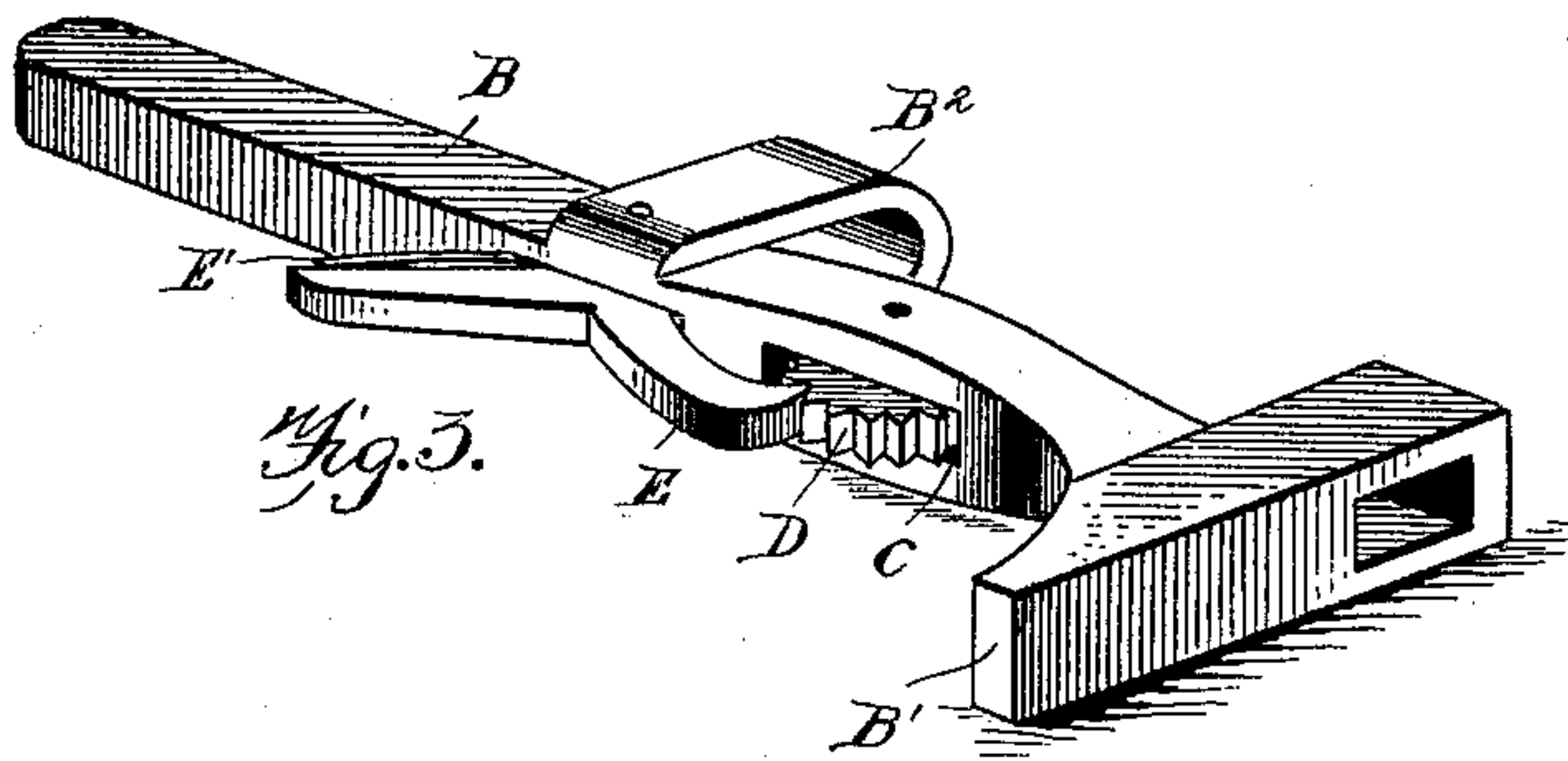
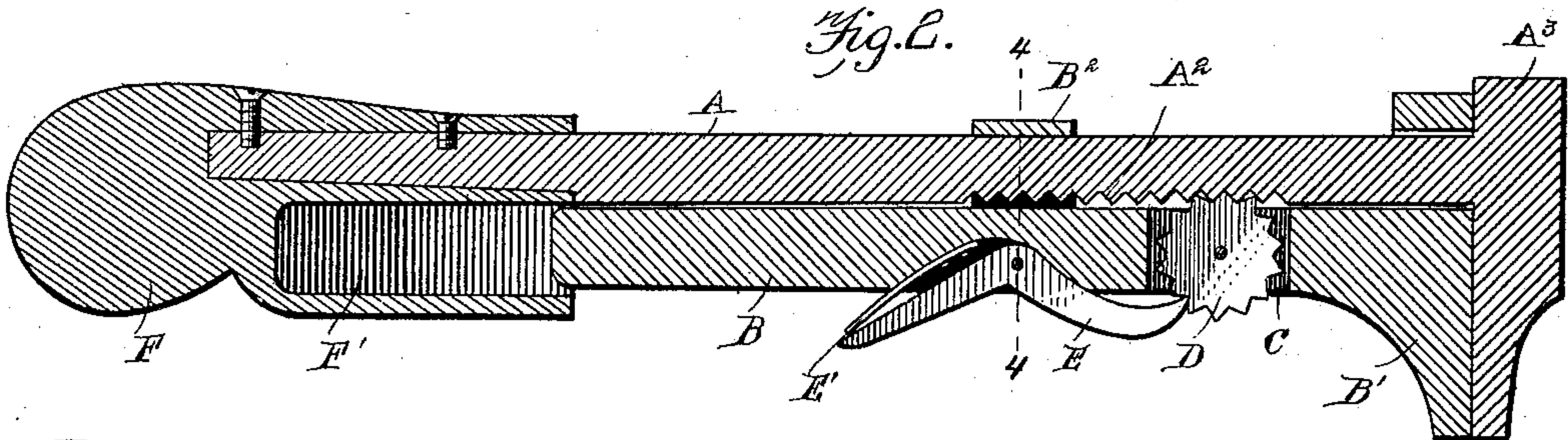


Fig. 3.

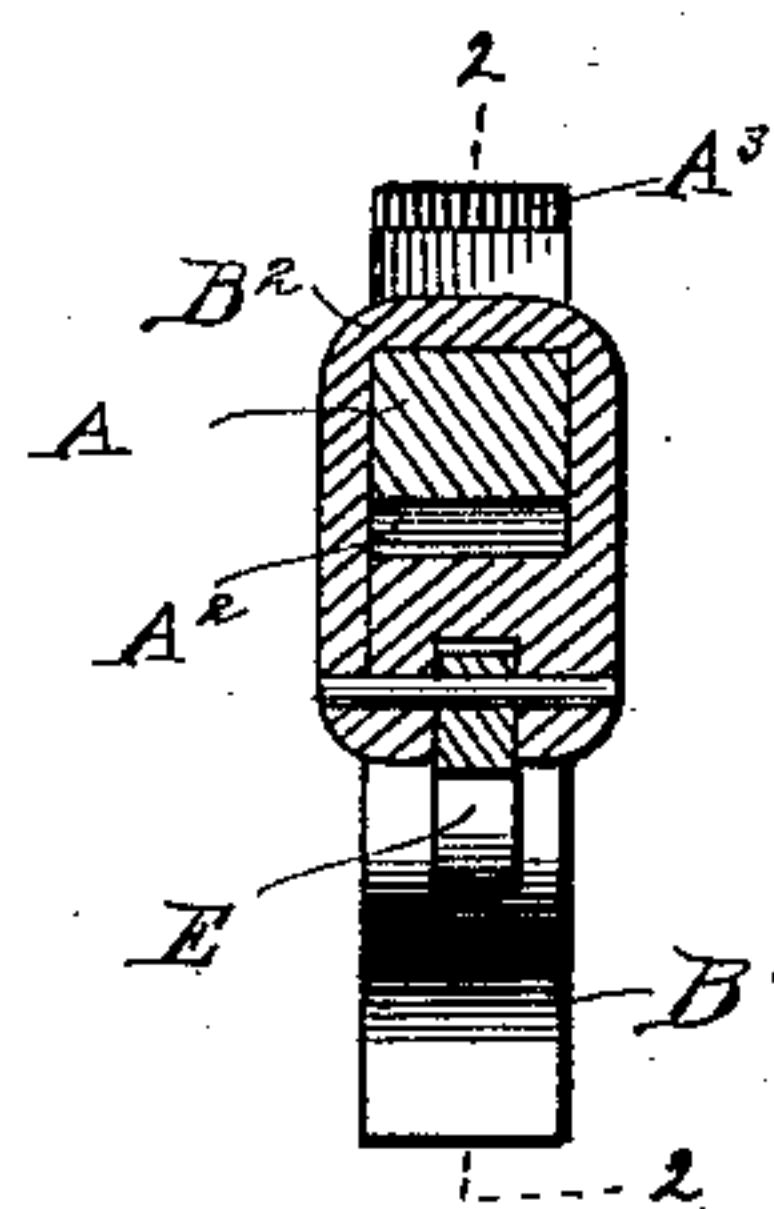


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WALLACE O. PARKER, OF NORMAN, OKLAHOMA TERRITORY.

ADJUSTABLE WRENCH.

SPECIFICATION forming part of Letters Patent No. 603,575, dated May 3, 1898.

Application filed June 24, 1897. Serial No. 642,133. (No model.)

To all whom it may concern:

Be it known that I, WALLACE O. PARKER, residing at Norman, in the county of Cleveland and Territory of Oklahoma, have invented a new and useful Adjustable Wrench, of which the following is a specification.

My invention relates to adjustable wrenches of the class known as "monkey-wrenches," and has for its objects to furnish a tool of this class which shall be capable of being quickly and easily adjusted to suit any size of nut, can be operated by one hand, leaving the other free and disengaged, will retain its jaws in any adjustment against great pressure, and is simple in construction and cheaply manufactured.

With these objects in view my invention consists in the improved construction, arrangement, and combination of parts herein-after fully described, and afterward specifically pointed out in the claim.

In the accompanying drawings, Figure 1 represents a perspective view of a wrench made in accordance with my invention. Fig. 2 represents a longitudinal section through the same on the line 2 2 of Fig. 4. Fig. 3 represents a perspective view of the sliding bar and its attachments detached, and Fig. 4 represents a transverse sectional view on the line 4 4 of Fig. 2.

Like letters of reference mark the same parts in all the figures of the drawings.

Referring to the drawings by letters, A is the stationary bar of the wrench, which is provided at its outer end with the stationary jaw A', made integral with the bar. The stationary bar A is also provided on its inner side with a series of transverse notches, forming its inner side into a rack A². The jaw A' projects slightly beyond the rear side of bar A and forms a hammer-head A³.

B is the sliding bar. It is provided with a jaw B', made integral therewith, and is slidably secured to the stationary bar A by means of yokes B², which may be made integral with bar B or secured thereto in any suitable or approved manner. Near the jaw B' the arm B is provided with a chamber C, extending entirely through it, and in this chamber is pivoted a toothed pinion D, which projects slightly beyond both the inner and outer surfaces of the bar B.

That portion of pinion D which projects inside of the bar engages with the teeth of the rack A² of stationary bar A and is held in engagement therewith by the yokes B² at all times. 55

The bar B is hollowed out near the chamber C to receive a pawl E, which is pivoted therein and held in engagement with pinion D by means of a spring E', secured to the bar under the handle end of the pawl. 60

F is the handle of the wrench, which may be made in any suitable shape and of any approved material, provided only that it be fashioned to receive and rigidly hold the stationary bar A, and is provided with a chamber F', in which the sliding bar may move. 65

In manufacturing my improved wrench the parts are all made separate, and in assembling these parts the following routine is observed: First, the pinion, pawl, and spring are secured in place on the sliding bar; next, this bar, with these attached parts, is brought into operative position by sliding its yokes over the inner end of the rigid bar, and, finally, the rigid bar, with the sliding bar and its attached parts in position thereon, is secured in the handle. 70 75

In operating my invention the handle is grasped in the hand, which brings the thumb in position to rest on the handle end of the pawl. By a slight pressure of the thumb the point of the pawl is raised out of engagement with the pinion, leaving the pinion free to rotate. By the further movement of the thumb the sliding bar can be moved inward or outward, causing the jaws to be adjusted nearer together or farther apart, the pinion acting during the movement of the sliding bar as an antifriction-roller and rendering the movement easier by doing away with the friction between the two bars. 80 85

The advantages of my invention will be obvious from the foregoing description. The operator can use the wrench as readily with one hand as ordinary wrenches can be used with both, and while the sliding bar and its jaw are rigidly held in any adjustment their adjustment is quickly and easily made by the thumb of the hand in which the wrench is held, leaving the other hand disengaged to be used for any other purpose. 95 100

The jaws of this wrench may be faced so

as to adapt them to engage any shape of nut, or they may be constructed so that the wrench will serve as a pipe-wrench, or it may be as a combined nut and pipe wrench, as may be desirable.

5 It will be observed that a special feature of my construction is to so project the pinion beyond the inner surface of the sliding bar that the two bars will not be actually in contact with each other, so that there will be no friction between the bars in adjusting the jaws.

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

The combination in an adjustable wrench, of a rigid bar carrying a jaw at its outer end and provided with a toothed rack on its inner surface, with a sliding bar also provided with a jaw at its outer end, a pinion pivoted in a chamber of said sliding bar projecting beyond both surfaces thereof, a pawl pivoted to the sliding bar and engaging with the pinion, and yokes on the sliding bar embracing the rigid bar and holding the pinion and rack in engagement, substantially as set forth.

WALLACE O. PARKER.

Witnesses:

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T. M. UPSHAW.