(No Model.)

M. E. CAMPFIELD.

WRENCH.

No. 371,302. Patented Oct. 11, 1887.

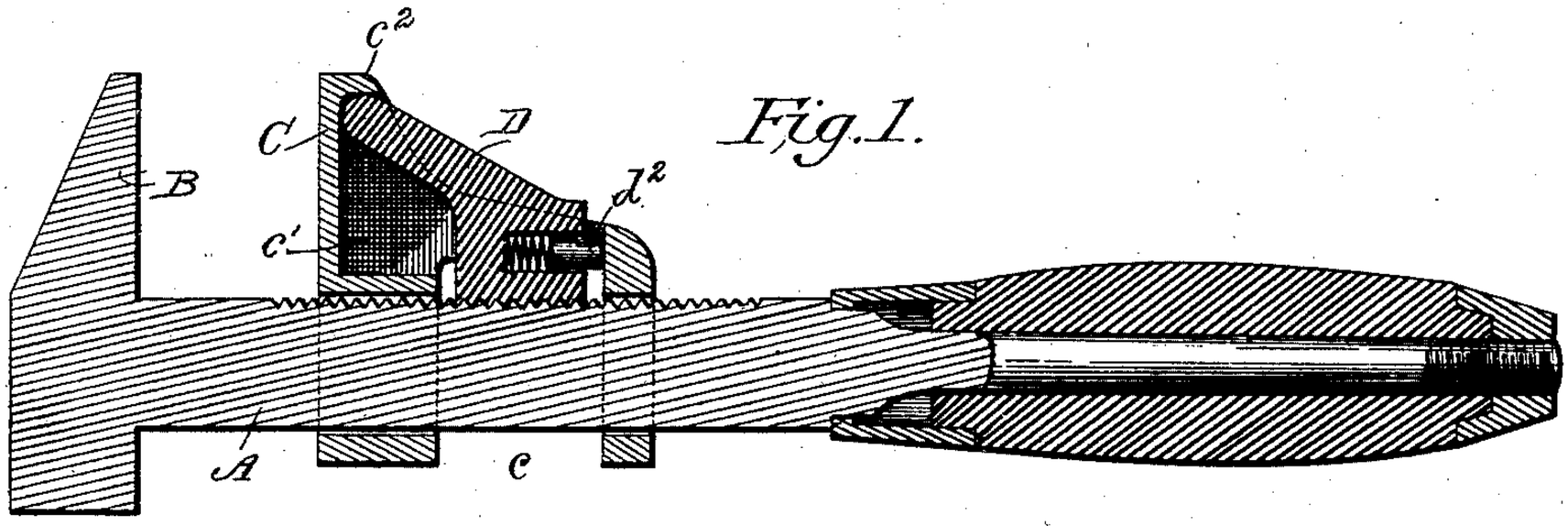

Fig. 1.

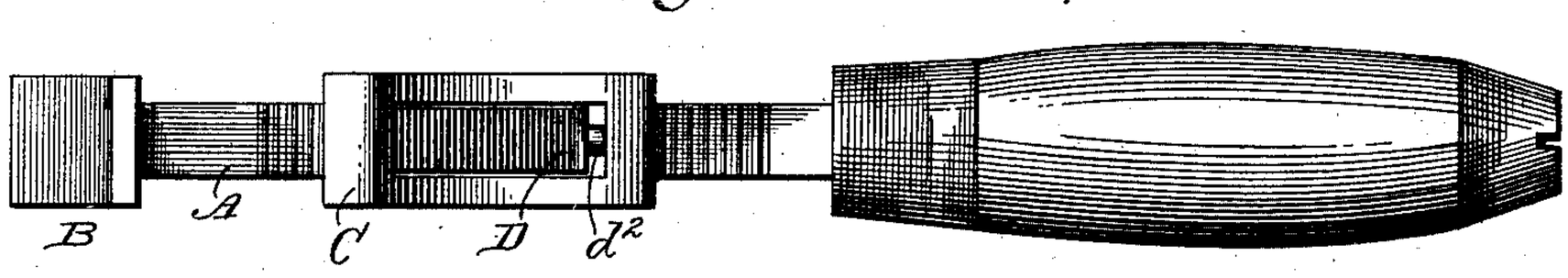

Fig. 2.

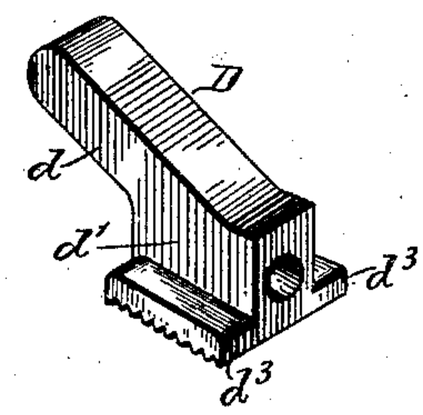

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

MATTHEW E. CAMPFIELD, OF ALLEGHENY, ASSIGNOR TO A. F. ALLEN BROWN, OF PITTSBURG, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 371,302, dated October 11, 1887.

Application filed May 28, 1887. Serial No. 239,684. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW E. CAMPFIELD, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, 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.

My invention relates to the class of wrenches known as "monkey-wrenches," in which there is a fixed and a movable jaw; and it has especial reference to the kind of monkey-wrenches in which the movable jaw has a free sliding movement toward and from the fixed jaw, whereby it is capable of being easily and quickly adjusted to different-sized nuts, and when so adjusted is locked in position. These wrenches are known as "rapid-transit" wrenches, in contradistinction to those in which the jaw is moved and adjusted by screw or other mechanical action.

The invention consists, essentially, in the construction of the movable jaw, in the combination therewith of a spring-actuated, dog which is adapted to engage automatically with the serrated or toothed shank upon which the jaw slides to lock the latter against backward movement, and in the construction of the dog, whereby it is adapted to be conveniently disengaged from the shank to allow the jaw to be moved backward.

In the accompanying drawings, which illustrate my invention, Figure 1 represents a longitudinal section of a wrench embodying my invention. Fig. 2 is a front view of the same, and Fig. 3 a perspective view of the dog which holds the movable jaw.

A designates the shank of the wrench; B, the rigid jaw; C, the movable jaw, and D the dog, which holds the movable jaw against backward movement on the shank.

The shank A is serrated on the side on which the jaws are located, the serrations extending entirely across and forming teeth with which the dog engages to hold the movable jaw.

The jaw C is mounted on the shank A, to slide back and forth, as usual in this class of wrenches, and is cut out at *c* to form a recess for the finger-piece of the dog D. It is also formed with a chamber, *c'*, in rear of its gripping-face for the reception of the body of the dog D, which chamber opens at the bottom into the recess *c*, through which the dog D is introduced. An overhanging lip, c^2, at the top of the recess, together with the vertical wall of the chamber, forms a seat for the front end of the dog, as represented in Fig. 1.

The dog D is formed substantially as represented in Figs. 1 and 3, with a body portion, *d*, and a head, *d'*, the lower face of the head *d'* being formed at an angle with the body *d*, so that when in position it will be parallel with the shank A. It is provided with teeth to match and engage with the teeth of the shank A. In its head is a spring-seated pin, d^2, which projects from the same and bears against the rear wall of the chamber *c'*, whereby it serves not only to press the jaw forward and hold it to its seat, but also to press the head down into engagement with the shank A.

The head of the dog is provided with integral side flanges, d^3 d^3, which overhang the shank A and project out flush with the jaw, forming finger-pieces by which the dog is pressed out of engagement with the teeth of the shank to release the jaw and enable it to slide back on the shank A to open the wrench.

The rear inclined face of the sliding jaw C is concaved or hollowed out, and the chamber *c'* is cut through the same. The body of the dog D is substantially straight, and when the parts are in position projects out of its chamber, and its upper face or edge stands above the concaved surface of the jaw. This permits the dog to be pressed down and held in engagement with the shank in the event of the spring becoming inoperative or the teeth becoming worn so as no longer to hold securely.

The dog is introduced into its chamber through the opening in the bottom of the latter before the jaw is placed upon the shank, and it can only be removed in the same way.

Having thus described my invention, I claim as new—

1. The sliding jaw C, concaved on its rear inclined face and chambered and recessed, as described, in combination with the serrated or toothed shank A, and with the dog D, seated in the chamber in said jaw and having a toothed

or serrated head to engage the serrations of the shank, the upper side of the body of said dog lying above the concaved surface of the jaw, whereby the dog is adapted to be pressed into engagement with the shank by hand, substantially as shown and described.

2. The sliding jaw C, concaved on its rear inclined face and chambered and recessed, as described, in combination with the serrated or toothed shank A, and with the dog D, seated in the chamber in said jaw, the said dog being formed with a head, d', and integral side flanges, d^3 d^3, the latter extending into the recess c and laterally beyond the shank on both sides to form finger-pieces, whereby the dog may be lifted out of engagement with the shank, the upper side of the body of the dog projecting out of its chamber above the concave surface of the jaw, substantially as and for the purpose set forth.

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

MATTHEW E. CAMPFIELD.

Witnesses:

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