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H. F. DICKINSON.

WRENCH.

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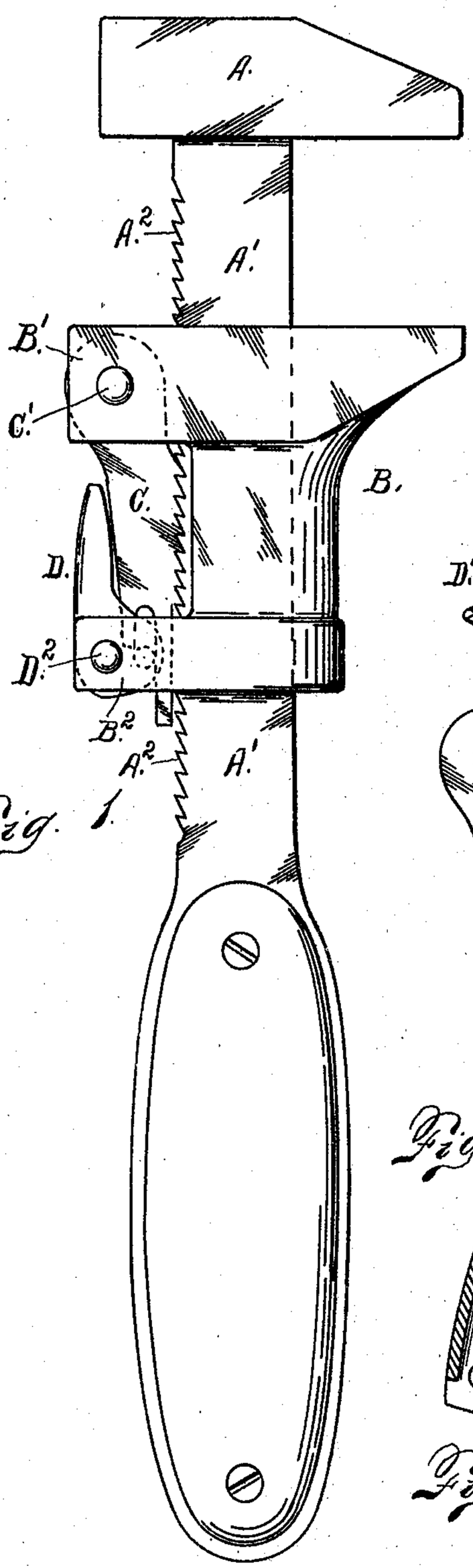

Fig. 1.

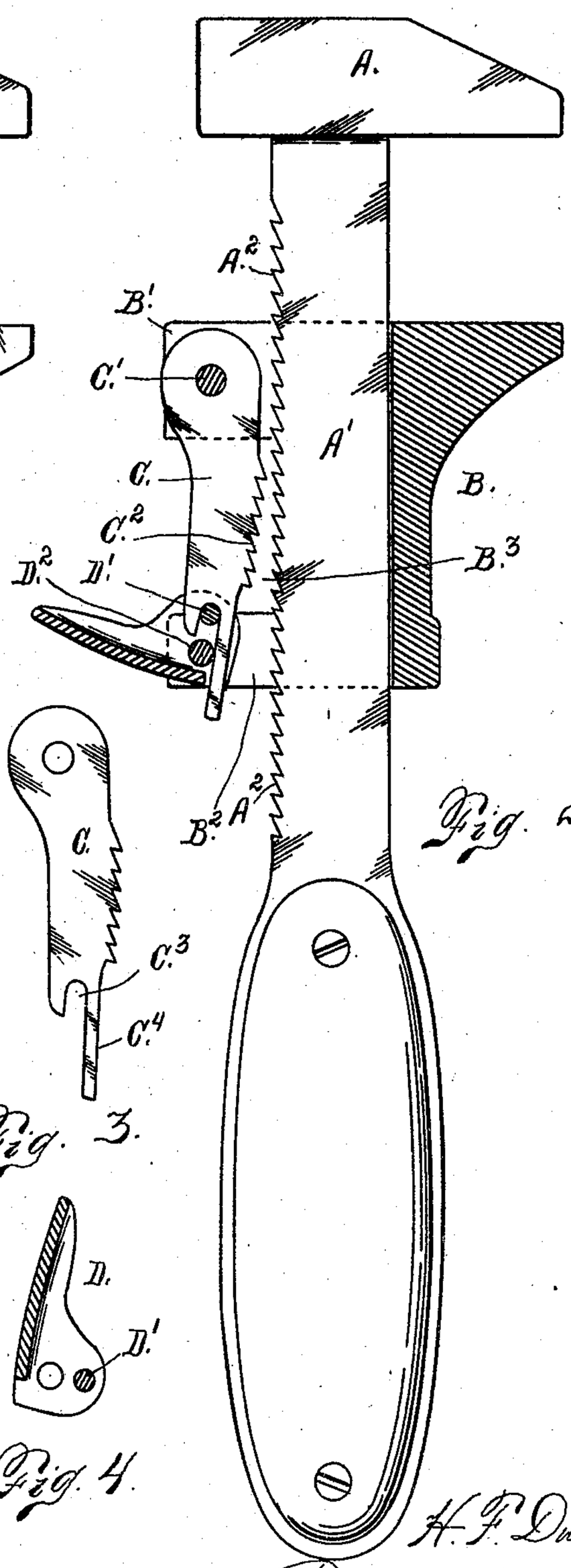

Fig. 2.

Fig. 3.

Fig. 4.

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To all whom it may concern:

Be it known that I, HENRY F. DICKINSON, a citizen of the United States, residing at Lafayette, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Wrenches; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in wrenches; and, generally speaking, it consists of means for quickly releasing and connecting the movable jaw of the wrench with the bar upon which the said jaw slides.

In my improved device the bar of the body of the wrench is provided with ratchet-teeth or notches, and upon the movable jaw is mounted a locking dog or device provided with teeth or notches adapted to interlock with the toothed edge of the bar when the jaw is locked upon the bar or in position for use. A cam-lever, also mounted on the movable jaw, is connected with the locking-dog, whereby the latter is manipulated or thrown from the locking to the unlocked position, or vice versa.

Having briefly outlined my improved construction, as well as the function it is intended to perform, I will proceed to describe the same in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side elevation of a wrench equipped with my improvements. Fig. 2 is a similar view with parts shown in section. Fig. 3 is a detail view of the locking device. Fig. 4 is a detail sectional view of the cam-lever.

The same reference characters indicate the same parts in all the views.

Let A designate the stationary jaw of a wrench, said jaw being rigidly connected with the bar A′, having a toothed edge A^2. Upon the toothed portion of the bar A′ is slidably mounted a jaw B. This jaw carries a locking device C, pivotally connected with the jaw by a pin C′. The edge of this locking device adjacent the toothed edge of the wrench-bar is toothed, as shown at C^2, to engage the teeth of the bar. The extremity of the locking device remote from its pivotal end is slotted, as shown at C^3, to receive an actuating-pin D′, mounted on the cam-lever D, the latter being fulcrumed on the jaw B by a pin D^2 and bifurcated to straddle the slotted extremity of the locking device. The locking device is provided on its toothed edge with a rearwardly-projecting part C^4, which extends beyond the slot C^3 and passes between the fulcrum D^2 of the cam-lever and the wrench-bar A′.

Attention is called to the fact that the movable jaw is bifurcated adjacent the toothed edge of the bar A′ to receive the locking device and the cam-lever, the said members passing between the bifurcated parts B′ and B^2. Between these bifurcated parts the jaw is open, as shown at B^3, to permit access to the cam-lever for the purpose of manipulating the locking device.

From the foregoing description the use and operation of my improved device will be readily understood. When it is desired to slide the jaw B freely on the bar A′, the cam-lever is raised and its pin D′, by virtue of its engagement with the slot C^3 of the locking device, lifts the latter sufficiently to disengage its teeth from the toothed bar A′. The lever and locking device are then in the position shown in Fig. 2. As soon as the jaw has been properly adjusted the cam-lever is thrown down to the position shown in Fig. 1, whereby the pin D′ passes out of the slot C^3 and acts on the projection C^4 of the locking device to force the latter inwardly, whereby its teeth are caused to interlock with the teeth of the bar A′. The movable jaw is thus locked in the adjusted position and the device is ready for use, the parts being in the position shown in Fig. 1 of the drawings.

Having thus described my invention, what I claim is—

1. In a wrench, the combination of a toothed or notched shank, a jaw slidable thereon, a locking device mounted on the movable jaw and toothed or notched to interlock therewith, a lever fulcrumed on the movable jaw and having an actuating-pin located beyond its fulcrum, and occupying a position parallel with the axis of the latter, the portion of the lever carrying the pin, being bifurcated to straddle the rear extremity of the locking device, the latter being provided with a slot open in the rear which slot the actuating-pin engages to lift the dog from engagement with the bar, said locking device having a rearward projection located between the lever-fulcrum and the wrench-bar, the said projection extending

in the rear of the slot and forming a bearing for the actuating-pin when the locking device is in the locked position.

2. The combination of a wrench-bar, a jaw slidably mounted thereon and coöperating with the stationary jaw with which the said bar is provided, the movable jaw being provided with two bifurcated parts located on opposite sides of an opening, a locking device connected with one of the bifurcated parts and passing through the opening in the other bifurcated part, a lever fulcrumed on the last-named bifurcated part and provided with an actuating-pin occupying a position parallel with the axis of its fulcrum, the said pin being adapted to engage the locking device, the latter having a slot open in the rear to receive the actuating-pin of the lever whereby the locking device may be lifted out of engagement with the wrench-bar, the locking device having a rearward projection extending between the lever and the wrench-bar and in the rear of the slot in the locking device, the actuating-pin engaging the said rearwardly-extending part when the lever and locking device are in the locked position, the lever being bifurcated to straddle the rear extremity of the locking device.

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

HENRY F. DICKINSON.

Witnesses:

A. J. O'BRIEN,

DENA NELSON.