No. 662,792.

Patented Nov. 27, 1900.

M. C. JACKSON.

WRENCH.

(Application filed Mar. 6, 1900.)

(No Model.)

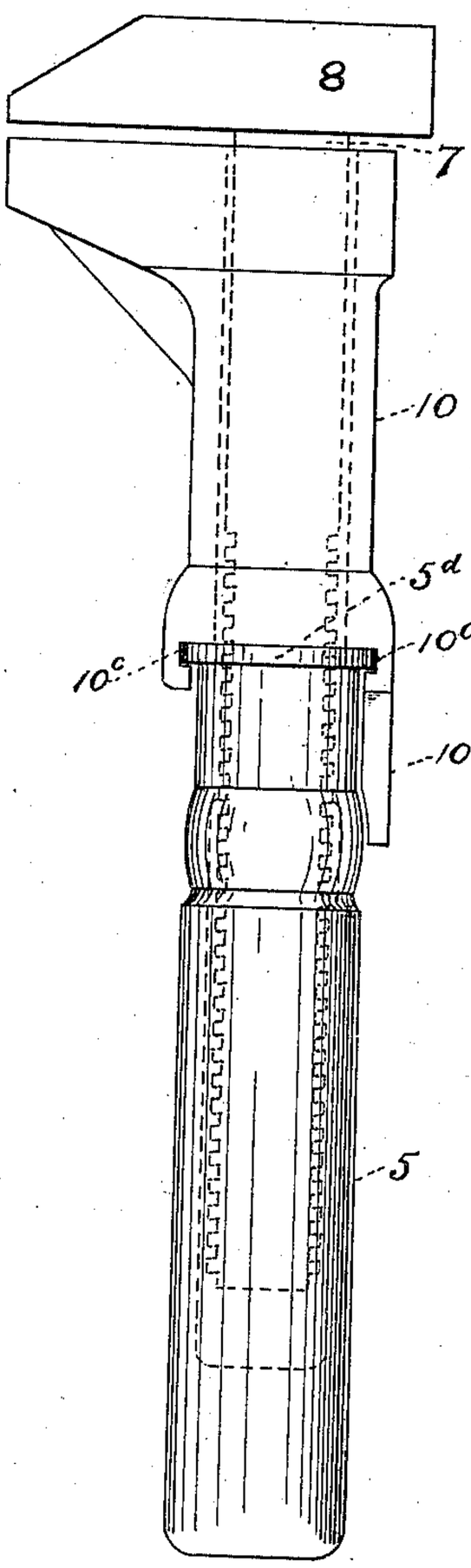

FIG 1

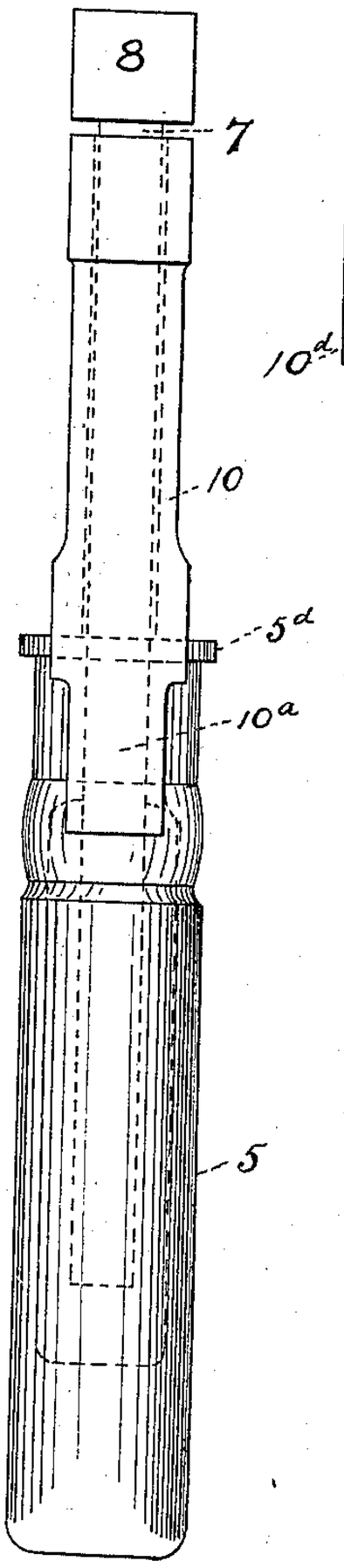

FIG 2

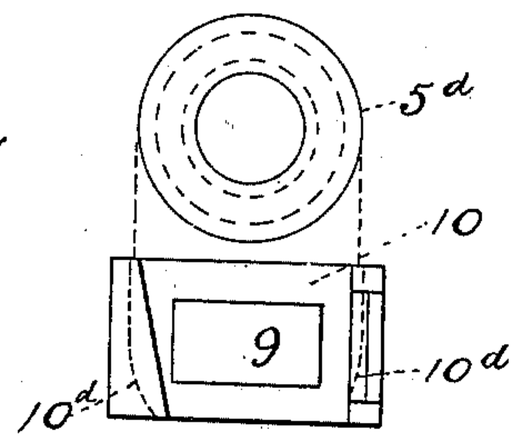

FIG 3

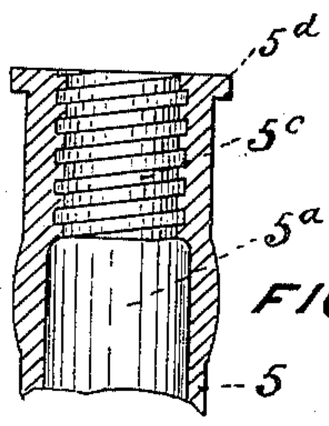

FIG 4

WITNESSES:

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MANETHO CORTES JACKSON, OF DENVER, COLORADO, ASSIGNOR OF ONE-HALF TO JOHN McDONOUGH, OF SAME PLACE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 662,792, dated November 27, 1900.

Application filed March 6, 1900. Serial No. 7,586. (No model.)

To all whom it may concern:

Be it known that I, MANETHO CORTES JACKSON, a citizen of the United States of America, residing at Denver, in the county of Arapahoe 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 figures of reference marked thereon, which form part of this specification.

My invention relates to improvements in wrenches, my object being to provide a device of this class which shall be simple in construction, economical in cost, and reliable, durable, and efficient in use; and to these ends the invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side elevation of my improved wrench. Fig. 2 is a rear view of the same. Fig. 3 is an end view of the movable jaw detached, the handle being shown in position to interlock with the jaw. Fig. 4 is a fragmentary sectional view of the handle.

Similar reference characters indicating corresponding parts in the views, let the numeral 5 designate the handle, which is hollow, as shown at 5^a, and threaded, as shown at 5^c. The threaded portion of the handle engages the shank 7 of the jaw 8. This shank is formed flat on two opposite sides and substantially rectangular in cross-section, its opposite edges being threaded to engage the threaded portion of the handle. When the parts are assembled, the shank telescopes in the handle. The shank 7 passes through a rectangular opening 9, formed in the movable jaw 10, which is provided with a thumb-piece extension 10^a. This extension enables the user by pressing his thumb or forefinger thereon to prevent the turning of the jaws and shank when he is about to apply the wrench. Without this thumb-piece there is nothing to prevent the shank from turning freely in the handle. The rear extremity of the jaw 10 is grooved, as shown at 10^c, to receive a shoulder 5^d, formed on the forward extremity of the shank. The bottom walls of the groove 10^c are separated on one side of the jaw a distance equal to the diameter of the collar 5^d, allowing this collar to enter and pass to a position bringing the opening in the front end of the handle in line with the shank 7. At their opposite extremities, however, the bottoms of the grooves curve toward each other, as shown at 10^d, (see dotted lines, Fig. 3,) thus contracting or narrowing the space between them, whereby the collar 5^d of the handle is prevented from passing farther than is necessary to bring the handle into proper position to receive the shank. The collar is locked by the grooves against further movement in that direction.

In assembling the three parts of the wrench the handle is first interlocked with the jaw 10 by inserting the collar in the grooves 10^c of the jaw, as heretofore explained. The shank is then inserted in the jaw, bringing its threaded extremity into engagement with the threaded portion 5^c of the handle, which is then turned until the shank has entered the hollow handle the desired distance. It is evident that the jaw 10 travels with the handle back and forth on the shank as the handle is turned in the grooved socket of the jaw. In this manner the jaws 8 and 10 are separated and closed. As the jaws are separated or opened preparatory to using the wrench the distance between the jaw 8 and the free extremity of the handle is increased, thus increasing the leverage of the wrench during use. When the wrench is applied to a nut, the jaws are held tightly in the adjusted position, since they can only be moved by the turning of the handle, and this cannot turn, since it is grasped by the hand of the user.

Having thus described my invention, what I claim is—

1. A wrench comprising a threaded shank provided with a jaw, a hollow handle threaded to engage the threads of the shank, and in which the latter telescopes, and a sliding jaw provided with an opening through which the shank passes, the shank and jaw opening being shaped to prevent the jaw from turn-

ing independently of the shank, the handle being revolubly interlocked with the sliding jaw which is grooved to receive a shoulder on the handle, the grooves being open on one side to receive the handle-shoulder, the space between the grooves on the opposite side being contracted to lock the shoulder against escape from the jaw.

2. In a wrench, the combination of a hollow interiorly-threaded handle, a jaw having a threaded shank to engage the handle and telescope therein, a jaw slidingly mounted on the shank, having a grooved socket open on one side to receive a shoulder formed on the handle extremity, the socket being contracted on the opposite side to prevent the shoulder from slipping out, the sliding jaw being also provided with a thumb and finger piece overlapping the handle for the purpose set forth.

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

MANETHO CORTES JACKSON.

Witnesses:
C. L. COOPER,
W. E. PRUETT.