

A. J. CURTIS.

WRENCH.

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983,483.

Patented Feb. 7, 1911.

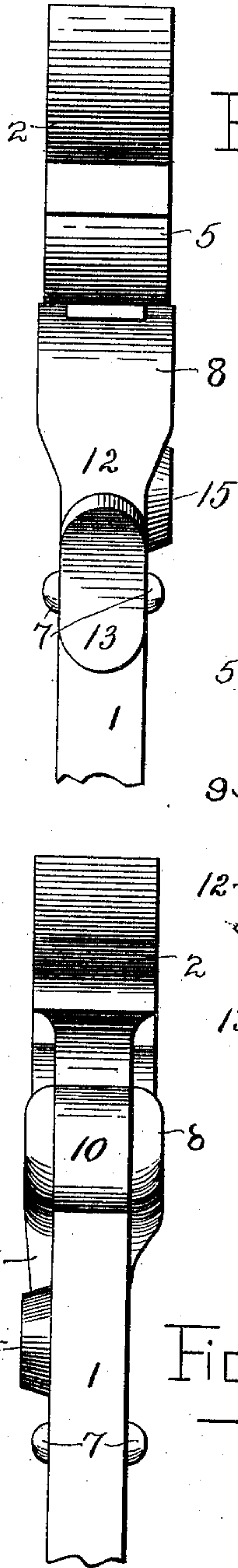
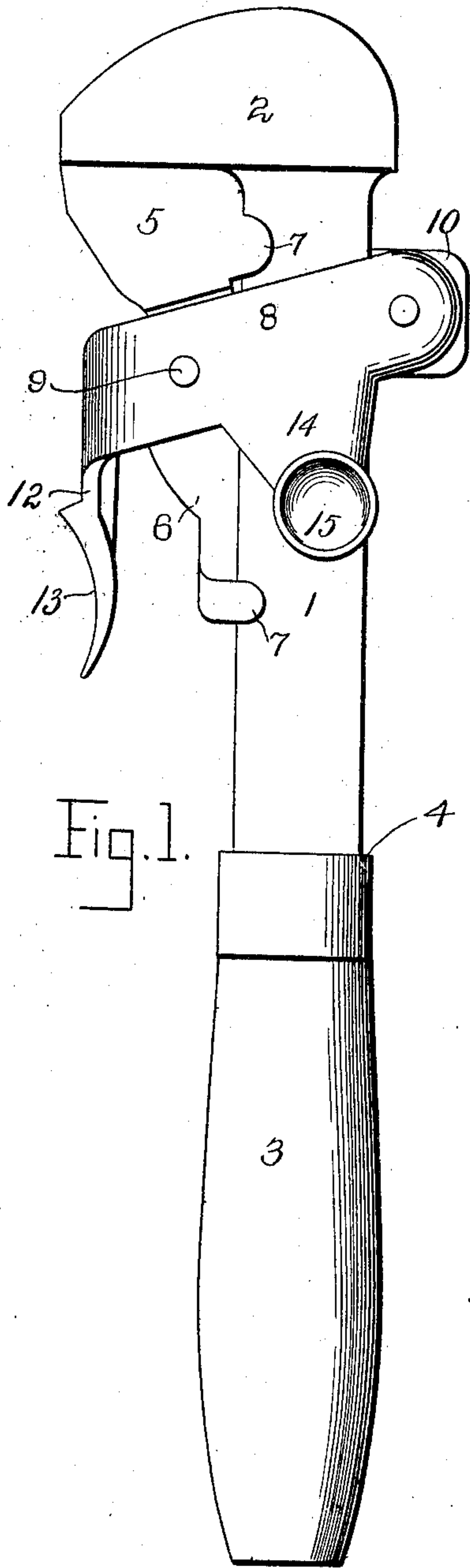


Fig. 2.

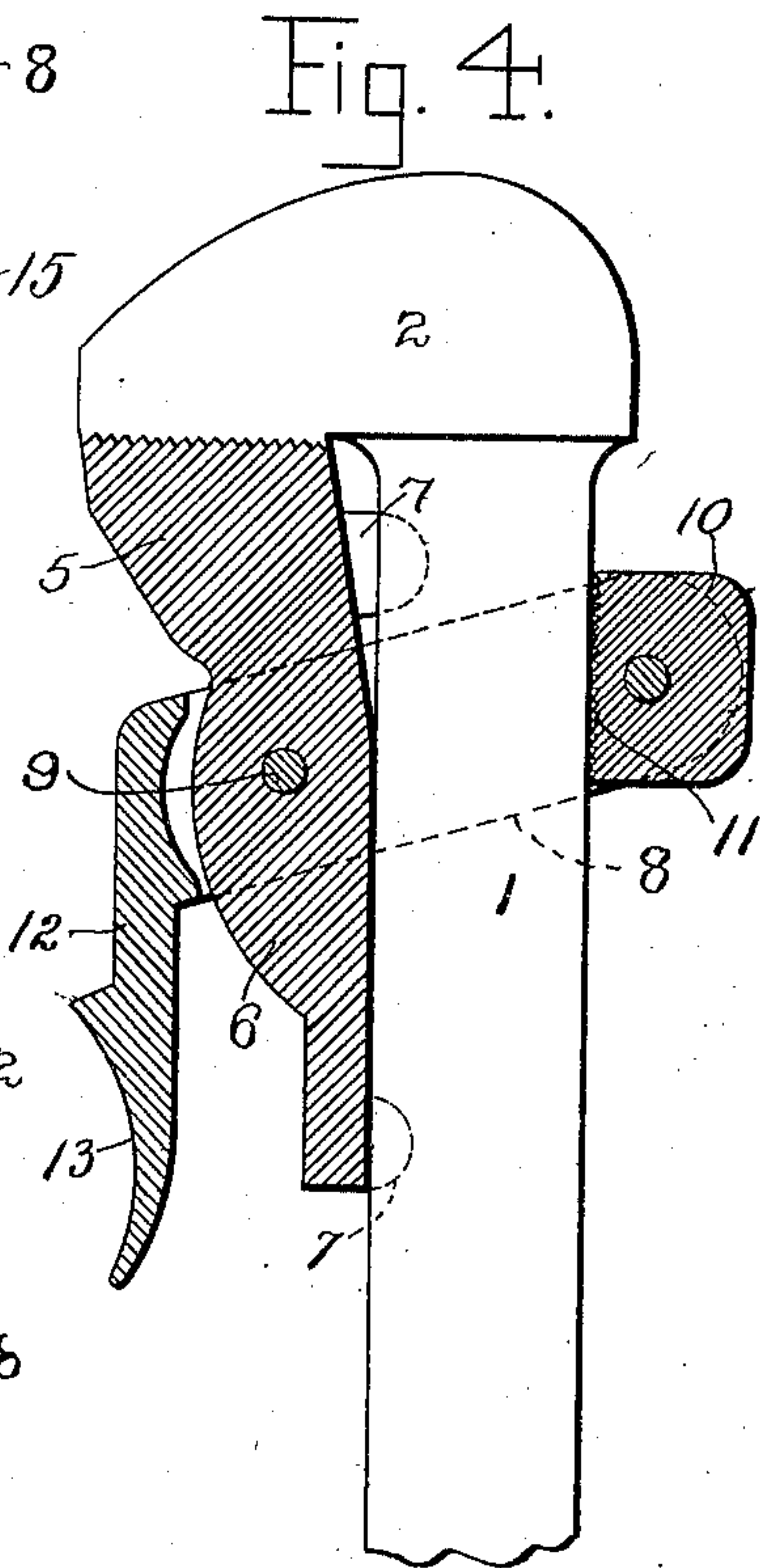


Fig. 4.

Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

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WRENCH.

983,483.

Specification of Letters Patent.

Patented Feb. 7, 1911.

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*To all whom it may concern:*

Be it known that I, ANDREW J. CURTIS, a citizen of the United States, residing at East Williamson, in the county of Wayne and State of New York, 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 wrenches.

Among the objects I have in view are to provide a wrench which can be readily adjusted, to accommodate different sizes of nuts, by the same hand which is used for operating the wrench, to simplify the construction of the various parts, and to promote the durability of the device as a whole.

The invention resides in a peculiar form of movable jaw and clutch-loop pivotally connected to said movable jaw and embracing the shank of the fixed jaw, said loop carrying a clamping block, between its rear extremities, which is adapted to grip upon the rear edge of said shank causing the movable jaw to be clamped at any desired position by reason of the inclination of said clutch-loop.

The invention also consists of means whereby the clutch may be fixed or released and the movable arm advanced or retracted by the thumb of the hand which clasps the handle of the wrench.

The invention consists further in the features of construction and combinations of parts hereinafter described and specified in the claim.

In the accompanying drawing: Figure 1 is a side view of a wrench constructed in accordance with my invention. Fig. 2 is a front edge view with part broken away. Fig. 3 is a rear edge view with part broken away, and Fig. 4 is a sectional view of a wrench constructed in accordance with the showing in the other figures except that its jaws are formed for gripping pipe.

As here illustrated, I prefer to form the shank 1 integral with the fixed jaw 2 and handle 3, a shoulder 4 being provided at the juncture of said handle and shank to limit the spread of the jaws. The movable jaw 5 has a projection 6 extending along the front edge of the shank. Lugs 7 project inwardly

from the movable jaw and the extremity of its extension for the purpose of retaining these parts in their proper positions during adjustments of said movable jaw.

The clutch-loop 8 is pivoted to the movable jaw at 9 about midway of its length, including its extension 6. The clamping block 10 is pivoted between the rear extremities of said clutch-loop. This clamping block is made of hard tempered steel and is serrated, as at 11, on its inner face so as to clamp firmly upon the rear edge of the shank of the fixed jaw when strain is placed upon the jaw. The shank is preferably made of cast or swaged metal which is softer than the clamping block whereby the latter will bite into said shank and thus afford a more tenacious grip upon the same. Said block has a broad gripping face to give it a better hold upon the shank. This gripping face is always presented directly to the rear edge of the shank, no matter what the position of the clutch-loop may be, because of the pivotal connection between said block and loop.

On the front of the wrench, the clutch-loop is provided with an integral arm or lever 12 extending substantially parallel to but spaced away from the projection 6 of the movable jaw. The end of this lever is suitably formed, as at 13, to fit the thumb which may be engaged therewith for advancing the movable jaw and bringing the clutch-loop into clamping position. One side of said loop has a projection 14 extending along the shank toward the handle and provided with a depression 15. The end of the thumb may also be engaged with this depression for turning the clutch-loop into position which releases the clamping block, and also for retracting the movable jaw. All of the operations just described as being performed by the thumb upon the lever 12 and projection 14 may be readily accomplished while the fingers of the same hand are clasped around the handle of the wrench.

I claim:

In a wrench, the combination, with a fixed jaw and its shank, and a handle at the other end of said shank, of a movable jaw arranged at the front edge of said shank, a clutch-loop pivotally connected to said movable jaw and embracing the shank, means carried by said loop for gripping the rear edge of said shank, a lever on said loop extending into

position to be engaged by the thumb for releasing said clutch loop and advancing said movable jaw while the fingers of the same hand are grasped around the handle, and a  
5 projection from one side of said loop extending along the shank toward the handle and adapted to be engaged by the thumb for releasing said clutch-loop and retracting the

movable jaw while the fingers of the same hand are clasped around the handle. 10

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

ANDREW J. CURTIS.

Witnesses:

W. A. NORTHUP,  
EDGAR W. KELLY.