

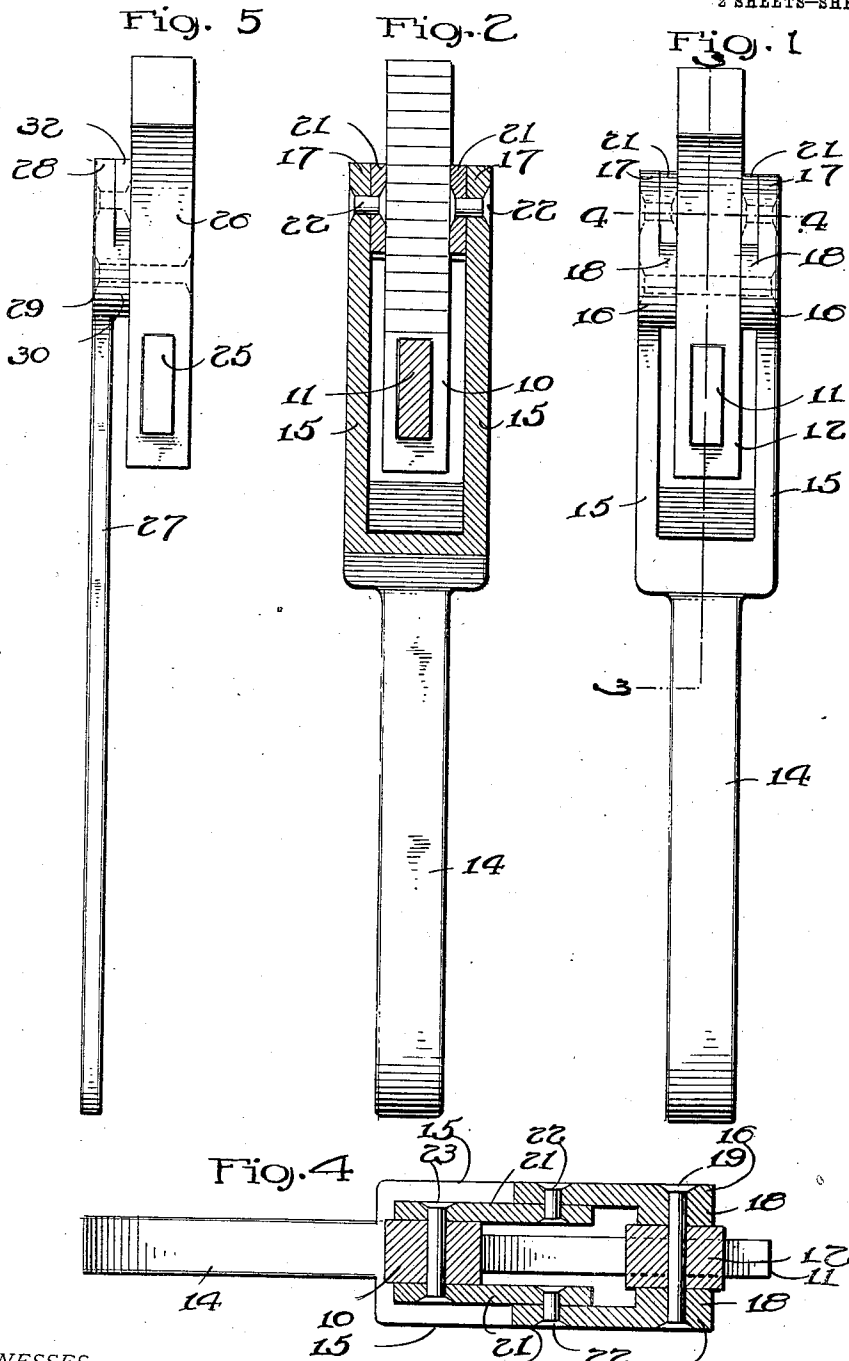
C. W. MARTIN.
WRENCH.

APPLICATION FILED MAY 1, 1912.

Patented Apr. 1, 1913.

2 SHEETS—SHEET 1.

1,057,864.



WITNESSES

J. M. Mules
Ross J. Woodward

Clare W. Martin

INVENTOR

By E. C. Crooman, Jr's Attorney.

C. W. MARTIN.

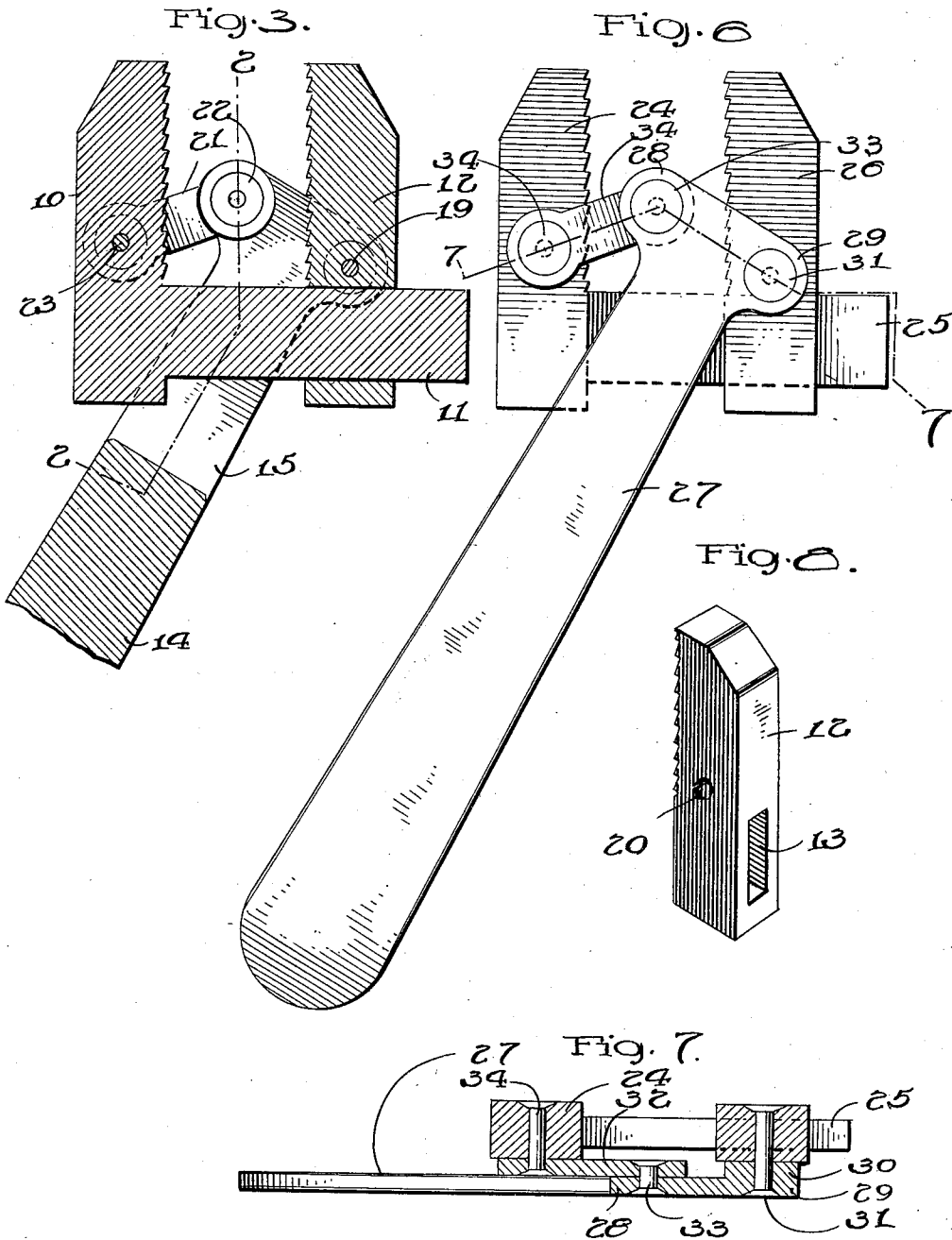
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UNITED STATES PATENT OFFICE.

CLARE W. MARTIN, OF POST FALLS, IDAHO.

WRENCH.

1,057,864.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed May 1, 1912. Serial No. 694,363.

To all whom it may concern:

Be it known that I, CLARE W. MARTIN, citizen of the United States, residing at Post Falls, in the county of Kootenai and State of Idaho, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wrenches and the principal object of the invention is to provide a wrench which will automatically accommodate itself to the size of the nut, or pipe to be engaged and which is provided with a stationary and a slidable jaw, which are connected by a handle so constructed that the jaws will be brought together by moving the handle in either of two possible directions. It will thus be seen that when placing the wrench upon the pipe it is not necessary to place it in any particular position in order to bring the jaws together when moving the handle in the proper direction to unscrew or to screw it in place.

This invention is illustrated in the accompanying drawings wherein: Figure 1 is a side elevation of the wrench. Fig. 2 is a section along the line 2—2 in Fig. 3. Fig. 3 is a section along the line 3—3 in Fig. 1. Fig. 4 is a section along the line 4—4 of Fig. 1. Fig. 5 is a view of a slightly modified form of wrench. Fig. 6 is an elevation of the wrench shown in Fig. 5 taken at right angles to the view shown in Fig. 5. Fig. 7 is a section along the line 7—7 in Fig. 6. Fig. 8 is a perspective view of the sliding jaw.

Referring to the accompanying drawings it will be seen that this wrench may be formed in two different manners; one form of wrench being shown in Figs. 1 through 4 and the second, being shown in Figs. 5 through 7.

Referring to Figs. 1, through 4, it will be seen that this invention comprises a stationary jaw 10 having a bar 11 extending therefrom at substantially right angles thereto. A sliding jaw 12 which is provided with a transverse opening 13 is mounted upon the bar 11 with the bar passed through the opening 13. The inner faces of these jaws 10 and 12 are preferably provided with teeth so that when using this device upon a pipe, or upon a nut formed of soft metal, the teeth will bite into the metal, thus preventing the wrench from slipping. A lever 14 has forks 15 extending from one

end and each of the forks 15 has its end provided with pivot ears 16 and 17, the pivot ears 16 being thickened to provide the inwardly extending spacing lugs 18. A pivot pin 19 passes through the ears 16 and through the opening 20 formed in the jaw 12 so that the ears 16 will be pivotally connected with the jaw 12. Links 21 of the same thickness as the lugs 18 are pivotally connected with the pivot ears 17 by means of the rivets 22, the opposite ends of the links 21 being pivotally mounted upon the outer ends of the pivot 23 which passes through the stationary jaw 10. It will thus be seen that the links and the ends of the lever form a toggle-joint between the stationary and the slidable jaw so that when the lever is moved the jaws will first be moved along the bar 11 until they are opened as far as the joint will permit and the joint is then turned in the reverse direction so that upon moving the lever a greater degree in the same direction the jaws will be brought together again. It will thus be seen that the jaws may be brought together by moving the lever in either of its pivotal directions.

In Figs. 5 through 7 I have shown a slightly modified form of wrench in which there is provided a stationary jaw 24 which carries the bar 25 upon which the sliding jaw 26 is mounted. The lever 27 is mounted upon one side of the jaws and is not provided with the fork used in the first form. The end of the lever is provided with pivot ears 28 and 29, the pivot ear 29 being thickened to form the spacing lug 30. The pivot ear 29 is pivotally mounted upon a pivot pin 31 carried by the jaw 26 and the pivot ear 28 is pivotally connected with one end of a link 32 by means of the rivet 33. The opposite end of the link 32 is pivotally mounted upon a pivot pin 23 carried by the jaw 24 so that the jaws 24 and 26 are connected by the toggle joint in the same manner as in the first form of wrench. The operation of this second type of wrench is the same as the first type, the jaws being brought together and opened by moving the lever in either direction.

Having thus described my invention what I claim is:—

A wrench comprising a stationary jaw, a bar extending from said stationary jaw, a sliding jaw slidably mounted upon said bar, a lever, pivot ears extending from the end

of said lever, one of said pivot ears being thickened and pivotally connected with one of said jaws, the remaining pivot ear being located between said jaws, and a link having one end pivotally connected with the remaining pivot ear and its other end pivotally connected with the remaining jaw whereby said jaws may be brought together

to rock said lever and link upon their pivot ears.

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

CLARE W. MARTIN.

Witnesses:

ALFRED ENDERS,
J. F. ENDERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."