E. M. NEWELL.

WRENCH AND CUTTER.

APPLICATION FILED MAR. 22, 1907.

924,816. Patented June 15, 1909.

Fig. 1.

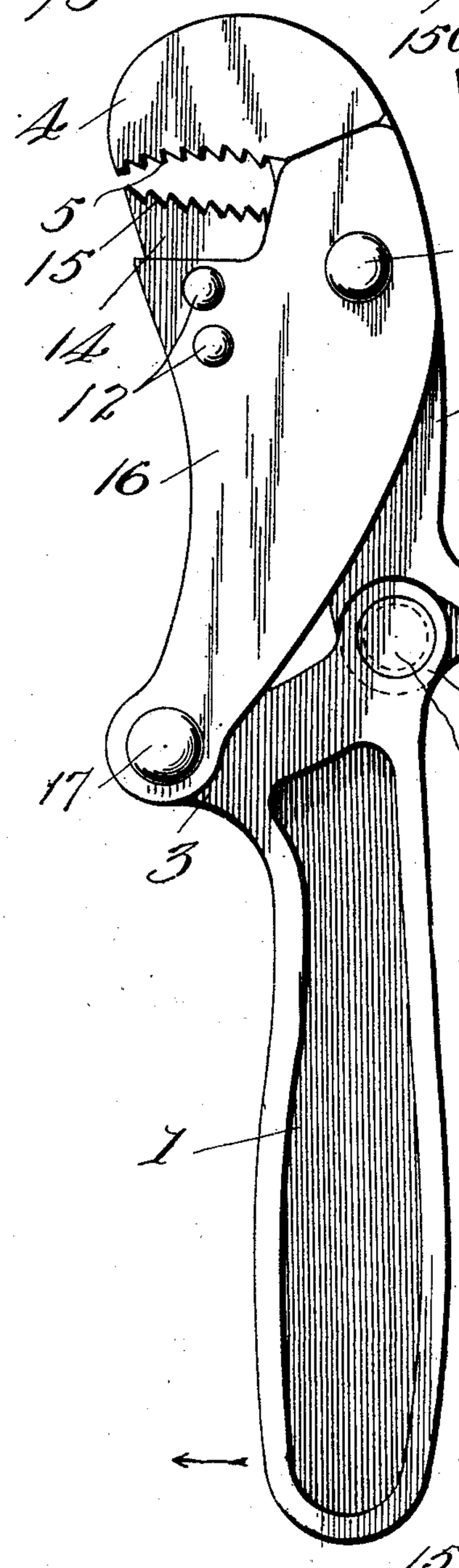


Fig. 3.

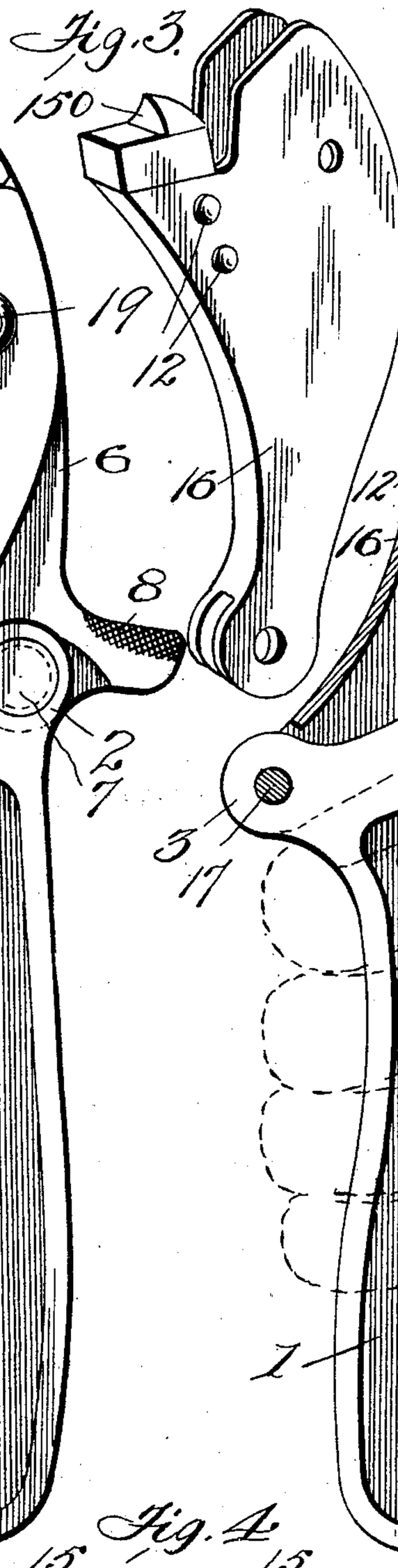
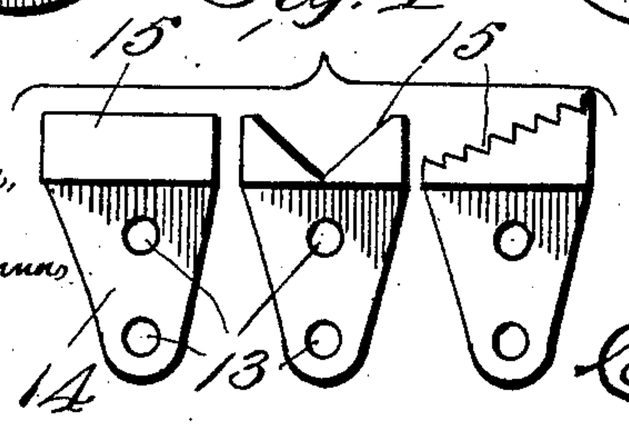


Fig. 2.

Fig. 4.



WITNESSES:

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By

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UNITED STATES PATENT OFFICE.

EDUARD M. NEWELL, OF ST. VINCENT, MINNESOTA.

WRENCH AND CUTTER.

No. 924,816. Specification of Letters Patent. Patented June 15, 1909.

Application filed March 22, 1907. Serial No. 363,875.

To all whom it may concern:

Be it known that I, EDUARD M. NEWELL, a citizen of the United States, and resident of St. Vincent, Kittson county, State of Minnesota, have invented certain new and useful Improvements in Wrenches and Cutters; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with a claim particularly specifying the novelty.

This invention relates to wrenches, more especially to that kind which have multiple pivoted jaws, and the object of the same is to produce an improved wrench of this type.

To this end the invention consists in locating the pivot for the inner jaw in rear of that for the outer jaw for the purpose set forth below, in having a spring to throw the jaws into operative relation, and in providing a number of interchangeable faces for the inner jaw.

In the drawings: Figure 1 is a side view of this wrench with its parts in their normal position. Fig. 2 is a similar view with the front face plate removed and the parts moved (by the thumb as shown in dotted lines) so as to open the wrench. Fig. 3 is a perspective detail of the casing, showing a pipe cutter as used for the inner jaws. Fig. 4 gives side views of various forms of the inner jaws.

In the drawings, the numeral 1 designates the handle which may be of any approved construction. At its front end it has a pair of ears 2, and at one side (here shown as at the bottom) it has a laterally projecting lug 3.

4 is the outer jaw which preferably has a roughened inner working face 5 projecting at about right angles from its shank 6. The latter is pivoted as at 7 between the ears 2, and adjacent this pivot it has a laterally projecting thumb piece 8. In the shank is formed a longitudinal slot 9 for a purpose to appear below.

14 designates an inner jaw having working faces 15 of various shapes as shown in Figs. 3 and 4, that in Fig. 3 numbered 150 being a point or sharp edge whereby the device may be used as a cutter for pipes or rods. Pivoted at 17 to the lug 3 is a hollow casing 16 of about the shape shown, and its side walls are connected by a bolt 19 which passes through the slot 9 and is held normally at the front end thereof by a spring 20 which is located therein. The inner jaw 14 is held within the front end of the casing below the shank 6 by any suitable means such as those shown in Fig. 4. In the present instance I have shown bolts 12 passing through the casing 16 and through holes 13 in the inner jaw, but I do not wish to be limited to this detail.

In use the parts stand normally as seen in Fig. 1. Pressure on the thumb piece 8 turns the shank 6 on its pivot 7, and the engagement of the bolt 19 with the slot 9 causes the casing 16 to turn on its pivot 17. As the latter pivot is farther to the rear than the former, such swinging of parts will cause the bolt 19 to be drawn rearwardly within the slot 9 and compress the spring 20. The jaws then separated are put astride the nut or pipe to be clamped, and when the thumb piece is released the pressure of the spring will throw the working faces of the jaws against the work. Thereafter a movement of the handle in the direction of the arrow will tighten the jaws on the work as will be clear; and if such working faces were serrated a reverse movement of the handle would slip them over a round piece of work for a new bite, as will be understood. It is clear that various forms of jaw faces can be substituted for those shown in Figs. 1 and 2, and some of the shapes are illustrated herein. The use of the device as a cutter is also obvious.

What is claimed as new is:

1. A wrench comprising a handle with a lateral lug, an outer jaw whose shank is pivoted to the end of the handle and has a longitudinal slot, a casing whose rear end is pivoted to said lug in rear of the pivotal point of the outer jaw, a bolt through the casing and extending through said slot, a spring in the latter behind the bolt, and an inner jaw carried by the casing.

2. A wrench comprising a handle with a lateral lug, an outer jaw whose shank is pivoted to the end of the handle and has a longitudinal slot, a casing whose rear end is pivoted to said lug in rear of the pivotal point of the outer jaw, a bolt through the casing and extending through said slot, a spring in the latter behind the bolt, an inner jaw carried by the casing, and a thumb piece projecting from the shank of the outer jaw near its pivot.

3. A wrench comprising a handle with a lateral lug and with ears at its front end,

an outer jaw having a shank at right angles thereto pivoted between said ears and provided with a thumb piece projecting outward near them and with a slot in its body, a casing pivoted at its rear ear to said lug in rear of the pivot of said shank, a bolt in the casing extending through said slot, a spring in the latter behind the bolt, and an inner jaw detachably secured within said casing.

In testimony whereof I have hereunto subscribed my signature this the 19th day of March, A. D. 1907.

EDUARD M. NEWELL.

Witnesses:

JAMES TURNER,
ROBT. E. BENNETT.

Correction in Letters Patent No. 924,816.

It is hereby certified that the name of the patentee in Letters Patent No. 924,816, granted June 15, 1909, for an improvement in "Wrenches and Cutters," was erroneously written and printed "Eduard M. Newell," whereas the said name should have been written and printed *Edward M. Newell;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 24th day of August, A. D., 1909.

[SEAL.]

F. A. TENNANT,

Acting Commissioner of Patents.