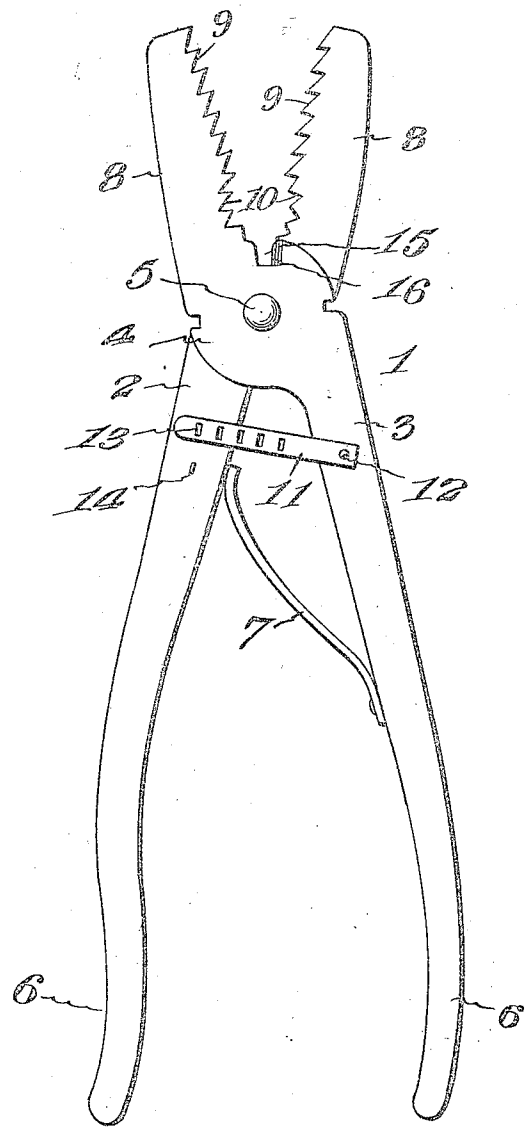
G. E. MILLER.

WRENCH.

APPLICATION FILED AUG. 28, 1908.

961,632. Patented June 14, 1910.



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Witnesses:

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UNITED STATES PATENT OFFICE.

GUSTAF E. MILLER, OF STRATTON, NEBRASKA.

WRENCH.

961,632. Specification of Letters Patent. Patented June 14, 1910.

Application filed August 28, 1908. Serial No. 450,692.

To all whom it may concern:

Be it known that I, GUSTAF E. MILLER, a citizen of the United States, residing at Stratton, in the county of Hitchcock and State of Nebraska, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and has for an object to provide a simple and novel form of wrench which will consist of but few parts and will be effective when in operation in the manipulation of nuts or bolts.

A further object of this invention is to provide automatic means for normally holding the jaws of the wrench in an open position whereby they may be conveniently engaged with nuts to be operated upon, and to provide simple means for holding the jaws in an adjusted position.

Other objects and advantages will be apparent as the nature of the invention is better disclosed, and it will be understood that changes within the scope of the claim may be made without departing from the spirit of the invention.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts;—the figure represents a plan view of a wrench constructed on the lines of my invention.

Referring now more particularly to the drawing, there is shown a wrench 1 comprising members 2 and 3 respectively, each being provided with an enlarged portion 4 to receive a pivot pin 5. The members 2 and 3 are provided with handles 6 disposed normally in spaced relation to each other by means of a leaf spring 7 secured at one of its ends to one of the handles 6, and which has its other end yieldingly engaged with the adjacent handle. Each enlarged portion 4 of the members 2 and 3 is provided with a jaw 8 having formed thereon upon its inner face a series of transversely disposed ratchet teeth 9, and inwardly of the teeth 9 each jaw is provided with a series of transversely disposed ratchet teeth 10 similar in construction to the teeth 9, but each series of these teeth is arranged in somewhat semi-circular form to effectively grasp an annular body such as a pipe or a bolt. The teeth 9 are adapted to engage the faces of the ordinary forms of nuts and to effectively hold the nuts engaged with the teeth 9 I provide a flat spring latch member 11 one end of which is pivotally mounted upon one of the handles 6 as shown at 12, and this member has formed therein a series of elongated openings 13 adapted to receive a projecting stud or pin 14 carried by the other of said handles.

The jaws of the wrench are not only adapted for use in the manipulation of nuts, bolts, pipes or the like, but it is obvious that these jaws may be used similar to the jaws of a pair of pliers.

The portions 4 of the members 2 and 3 are provided with peripheral slots 15 and one wall of each slot is formed with a cutting edge 16. It will be seen that the device may also be used as a wire cutter.

A wrench as herein set forth and described is extremely simple in construction, may be manufactured at a relatively low figure, and effectively serves the purpose intended.

By providing the spring 7 it is obvious that after the jaws have been once adjusted, the latch member 11 is effectively held from becoming disengaged from the stud 14, obviating the necessity of the jaws be g moved out of their adjusted positions whe the wrench is thrown down by its user.

I claim:—

In combination with a wrench having a pair of pivoted handles terminating at one end in jaws; of an oblong stud extending laterally from one of said handles and adjacent to the pivotal point thereof, and a resilient latch pivoted to the other of said handles and rotatable in a plane parallel to the sides of the wrench jaws, and provided with a plurality of spaced oblong openings adapted to independently receive the said stud, whereby the jaws may be locked in g open and closed positions and the latch held in engagement with the stud by its own resiliency.

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

GUSTAF E. MILLER.

Witnesses:

C. W. SHURTLOFF,

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