

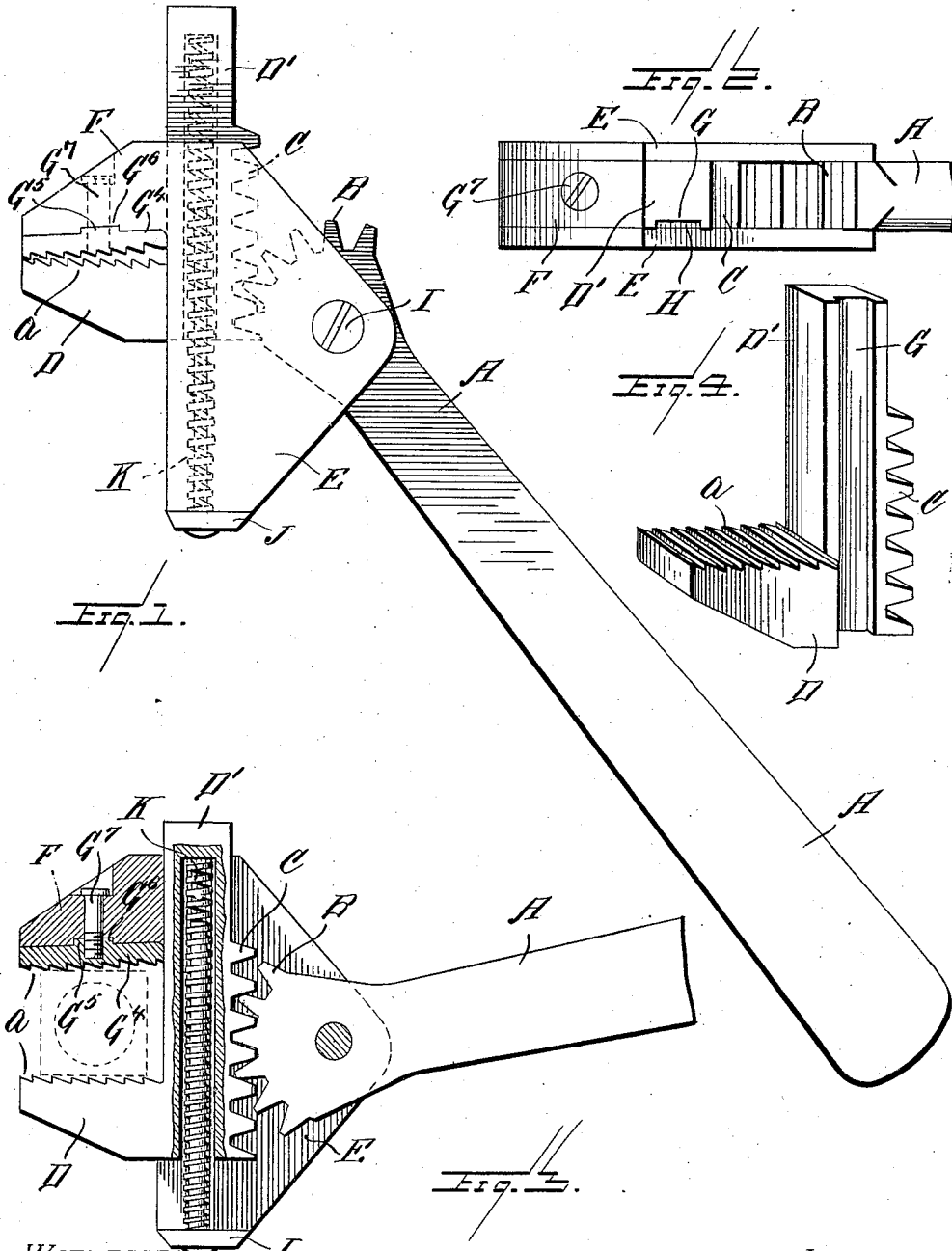
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W. WEBB & W. W. HILDRETH.

WRENCH.

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WITNESSES

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WILLIAM WEBB AND WARNIE W. HILDRETH, OF GLOVERSVILLE, NEW YORK.

WRENCH.

No. 874,269.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM WEBB and WARNIE W. HILDRETH, citizens of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented certain new and useful Improvements in Wrenches; and we 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in wrenches and more particularly to the construction of pipe wrenches and it has for its object the provision of a simple, inexpensive and efficient tool of this character which is adapted to be readily attached to a pipe and which will automatically hold its position until the wrench is used for turning the pipe.

The invention has for its further object the provision in a wrench of this character of a sliding or movable jaw integral with a sliding member, the rear face of which is provided with a rack bar adapted to be engaged by teeth formed upon the end of the handle, the jaws of the wrench being held normally closed by spring connection interposed between the head of the wrench and the jaw.

To these ends and to such others as the invention may pertain, the same consists in the novel features of construction and in the peculiar arrangement, combination and adaptation of parts, all as hereinafter more fully described, shown in the accompanying drawings and then specifically defined in the appended claims.

The invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification and in which drawings:—

Figure 1 is a side elevation of a wrench constructed in accordance with our invention, the jaws of the wrench being shown as closed. Fig. 2 is a top plan view. Fig. 3 is a side elevation in section of the wrench with the jaws shown as open, and Fig. 4 is an enlarged perspective view of the sliding jaw detached.

Reference now being had to the details of the drawings by letter, A designates the handle of our wrench which is provided with suitable gear teeth B, which are adapted to

engage the rack teeth C which are integral with the laterally movable jaw D which is adapted to move between the side walls E of the pivotally mounted jaw F. One of the side walls of the said pivotally mounted jaw is provided with a laterally depressed recess G adapted to engage a corresponding rib H provided upon the inner face of the side wall of the casing, this engagement of the rib within the slide serving to insure direct lateral movement of the movable jaw when the wrench is operated by the movement of the handle. The meeting faces of the fixed and movable jaws are provided with the usual serrations *a* to insure a firm grasp upon the pipe or other article grasped between the jaws. The handle is pivotally connected with the head of the wrench between the side walls of which it is disposed by means of a suitable pivot I.

It will be noted that the shank or body portion D', which is provided upon its rear face with the rack bar, the teeth of which are adapted to be engaged by the teeth carried at the end of the handle, is recessed to receive a rod, the lower end of which is connected with the base plate J at the extreme lower end of the head of the wrench and around this rod is sleeved a coiled or spiral spring K. When the movable jaw is opened or moved outwardly by the action of the handle, it will be noted that the outward movement of the jaw will serve to depress the spring, the tension of which is exerted to normally hold the jaw against the face of the fixed jaw or to hold the jaws in closed relationship.

The fixed jaw F is provided with a movable face plate G⁴, the rear face of which plate is provided with an offset portion G⁵ which is adapted to be fitted within a corresponding transverse recess G⁶ extending across the fixed jaw and this movable plate is held in position by means of a suitable screw or bolt G⁷ passed through a screw threaded opening in the jaw and plate.

From the foregoing description, the operation and advantages possessed by the wrench will at once be understood. The lower jaw being normally held with its face in contact with the fixed jaw and being adapted to be thrown out of such engagement only by force being applied to the handle of the wrench, it will be noted that, when a pipe or other article is grasped between the jaws of the wrench, the spring-actuated lower

jaw will be held normally in contact with the article grasped so that the wrench will be retained in operative position until the wrench is turned by the operator.

5 It will be noted that the wrench is of simple and inexpensive construction and adapted for all purposes for which wrenches of this character are designed. The advantage of the detachable face plate with the fixed jaw
10 will be at once evident as, when from use the serrations upon the face of the jaw become worn or dulled, the plate may be readily removed and the serrations sharpened or a new plate may be substituted therefor.

15 Having thus described our invention, what we claim to be new and desire to secure by Letters Patent is:—

1. A wrench comprising a fixed jaw having a shank made up of two walls spaced
20 apart, a handle pivotally mounted between said walls and having rack teeth thereon, a sliding jaw having a shank movable between the walls to which said handle is pivoted and provided with rack teeth engaged by the
25 teeth of said handle, the shank portion of the movable jaw being recessed, a plate connecting the ends of said walls, a spring positioned within the hollow shank of the slid-

ing jaw and bearing against said plate, serving to normally hold the jaws closed, as set forth. 30

2. A wrench comprising a fixed jaw having a shank made up of two walls spaced apart, a handle pivotally mounted between said walls and having rack teeth thereon, a
35 sliding jaw having a shank movable between the walls to which said handle is pivoted and provided with rack teeth engaged by the teeth of said handle, the shank portion of the
40 movable jaw being recessed, a plate connecting the ends of said walls, a rod fixed to said plate and positioned within the recess of the shank of the sliding jaw, a spring mounted
45 upon said rod and bearing at one end against the inner end of the shank of the sliding jaw and its other end against said plate, as set forth.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WILLIAM WEBB.

WARNIE W. HILDRETH.

Witnesses:

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