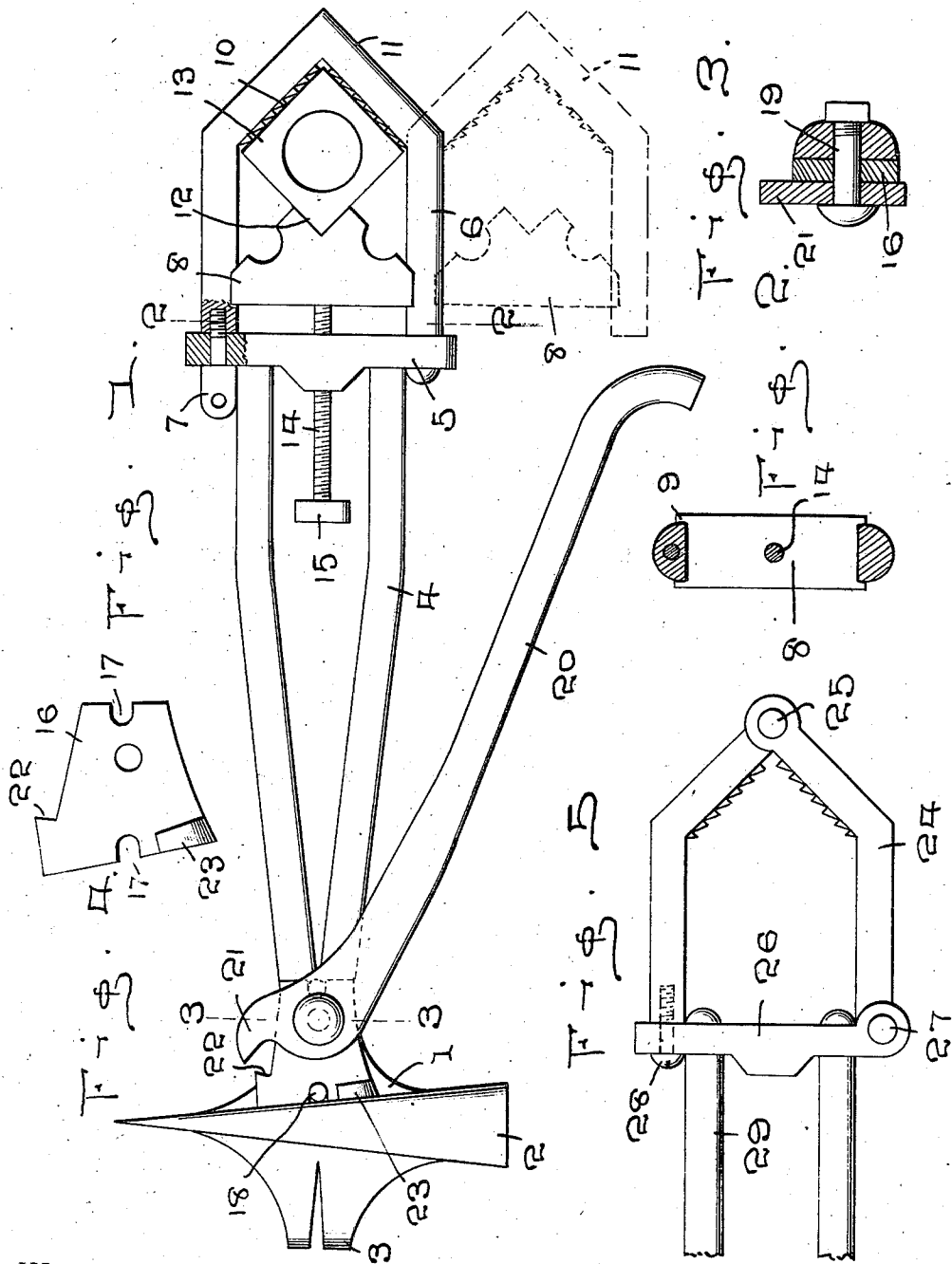


WRENCH.

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WITNESSES:

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WRENCH.

963,287.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BENEDICT GOODMAN, a citizen of the United States, residing at Wallace, in the county of Wallace and State of Kansas, 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 new and useful improvements in wrenches and my object is to provide an instrument in this class that is simple in construction, readily actuated and inexpensive to manufacture.

While my invention, as above indicated, consists of a wrench, yet I have shown and described in connection therewith certain adjunctive parts which adapt it as a general utility tool, as will be readily understood.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claim.

In the accompanying drawings forming part of this application, Figure 1 is a plan view of my improved tool, showing the parts in their operative position. Fig. 2 is a sectional view thereof as seen on line 2—2, Fig. 1. Fig. 3 is a sectional view as seen on line 3—3, Fig. 1. Fig. 4 is a plan view of a cutting plate removed from the tool, and, Fig. 5 is an elevation of a slightly modified form of nut and pipe wrench.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the head of my improved tool which is preferably formed into a poll 2, which poll is adapted to be used for driving nails, tacks and the like, one portion of the head being provided with claw 3, which is adapted to be used for extracting nails, etc., while on the opposite side of the head are formed shanks 4, said shanks serving as a handle for the tool. The shanks are separated at their outer ends and are attached to a cross bar 5, said bar extending beyond the shanks and having attached thereto a wrench frame 6, one arm of the frame being pivoted to one end of the cross bar, while the opposite arm is attached to the opposite end of the bar by means of a screw bolt 7.

The inner faces of the arms of the wrench frame are preferably flattened to form a guide for a follow block 8, the ends of said

block having extensions 9 thereon, which are adapted to pass on opposite sides of the arms of the frame and hold the follow block in position between the arms, the object of the follow block being to engage a pipe or nut and force the same against the teeth formed on the V-shaped portion 11 of the frame 6, the lower face of the follow block 8 being provided with a V-shaped notch 12 in which the corner of a nut 13 is adapted to extend, when the device is employed for turning a nut, while the edges formed by providing the V-shaped notch will engage the surface of a round object and hold the same against rotation in the wrench frame when the follow block is properly seated against the object.

The follow block 8 is operated through the medium of a threaded shaft 14, which shaft extends through the cross bar 5 and between the separated ends of the shanks 4, the inner end of the shaft being provided with a disk 15 by means of which the shaft may be readily rotated for moving said follow block inwardly and by reversing the movement of said screw the follow block may be moved outwardly. The screw 14 is adapted to engage or bear upon the follow block 8 and is therefore readily removable from said follow block for a purpose hereinafter indicated.

In Fig. 5 of the drawings I have shown a modified form of wrench frame, in which instance the frame 24 is formed in two sections and hinged together as shown at 25, one of the arms of the frame 24 being hingedly secured to one end of the cross bar 26, as shown at 27, while the opposite arm of the frame is secured to the opposite end of the cross bar by means of a bolt 28.

Instead of having the extensions 9 as shown in Fig. 2 for retaining the follow block in position in the wrench frame, the ends of said follow block may be formed in various ways for engaging the arms of the wrench frame, as is thought will be understood.

In employing the tool, the screw 14 is turned until the same is removed from the follow block 8, the screw 14 being then withdrawn from engagement with the frame 6, when said frame, together with the follow block is swung laterally upon its pivot. By now withdrawing the follow block, the frame 6 may be strided upon the pipe or bolt from which it may be desired to re-

move a nut, and suitably adjusted to the nut, said parts then being returned to their initial position and the follow block also engaged with said nut by suitably turning the screw 14 for clamping said follow block in contact with said nut. It is now apparent that by suitably manipulating the instrument the operation of turning the nut may be readily effected.

10 In that form of wrench disclosed by Fig. 5, it is obvious that by suitably applying a screw driver to the bolt 28, one arm of said frame 24 may be readily detached from the cross bar 26 when said frame may be turned
15 upon its axis 27, permitting the ready extending of one of its arms in applying said frame to the object to be engaged, after which it is apparent, the parts may be readily secured in initial position and the object thus
20 be clamped in effective position thereby.

It will thus be seen that I have provided a very cheap and economical form of tool and one wherein the various forms of the wrench may be readily applied to use.

25 The features not described in detail are shown as simply capable of use with the invention.

What I claim is:

A device of the character described, comprising a handle, a frame consisting of lateral portions having an approximately V-shaped connecting portion therebetween, one of said lateral portions being pivoted at one end to a cross bar of said handle, the opposite lateral portion of said frame having a threaded socket in one end, a screw inserted through an aperture in said cross bar and engaging said screw-threaded socket, a follow block slidably arranged between said lateral portions of said frame and having an approximately V-shaped notch therein opposed to the corresponding angle of the approximately V-shaped portion of said frame, and an adjusting and tightening screw threaded into said cross bar and engaging said follow block.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENEDICT GOODMAN.

Witnesses:

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