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H. E. H. SCHMIEDING.
WRENCH.
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1,441,120

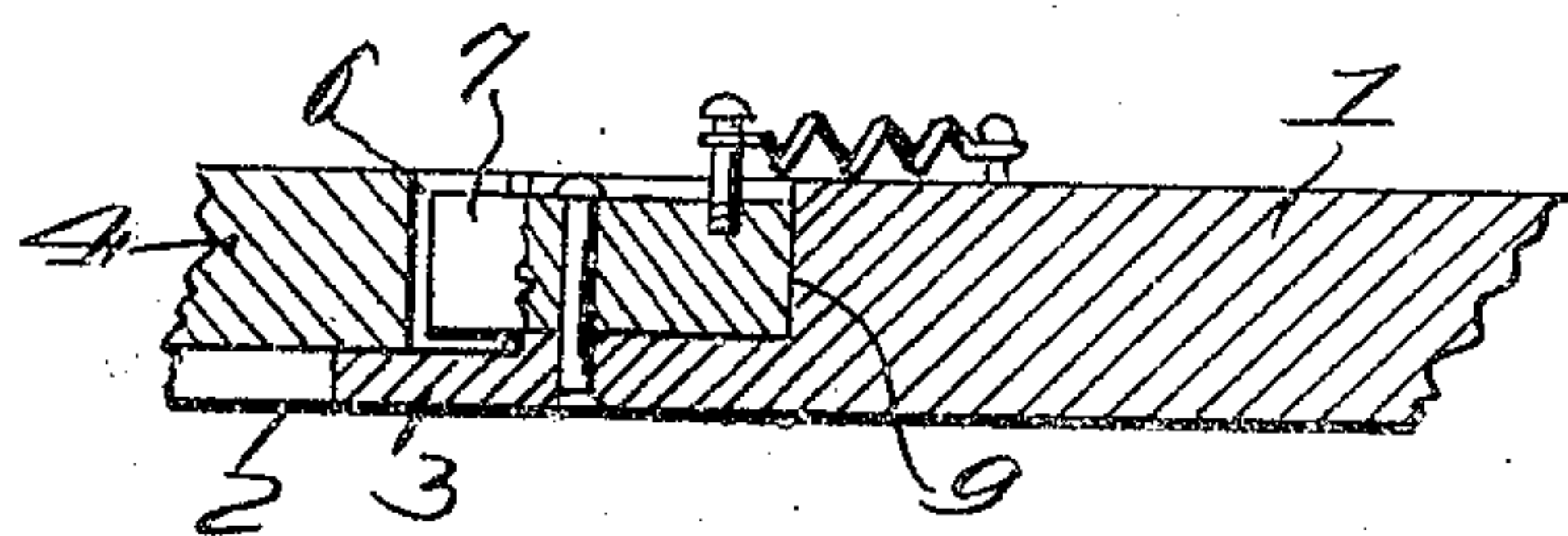
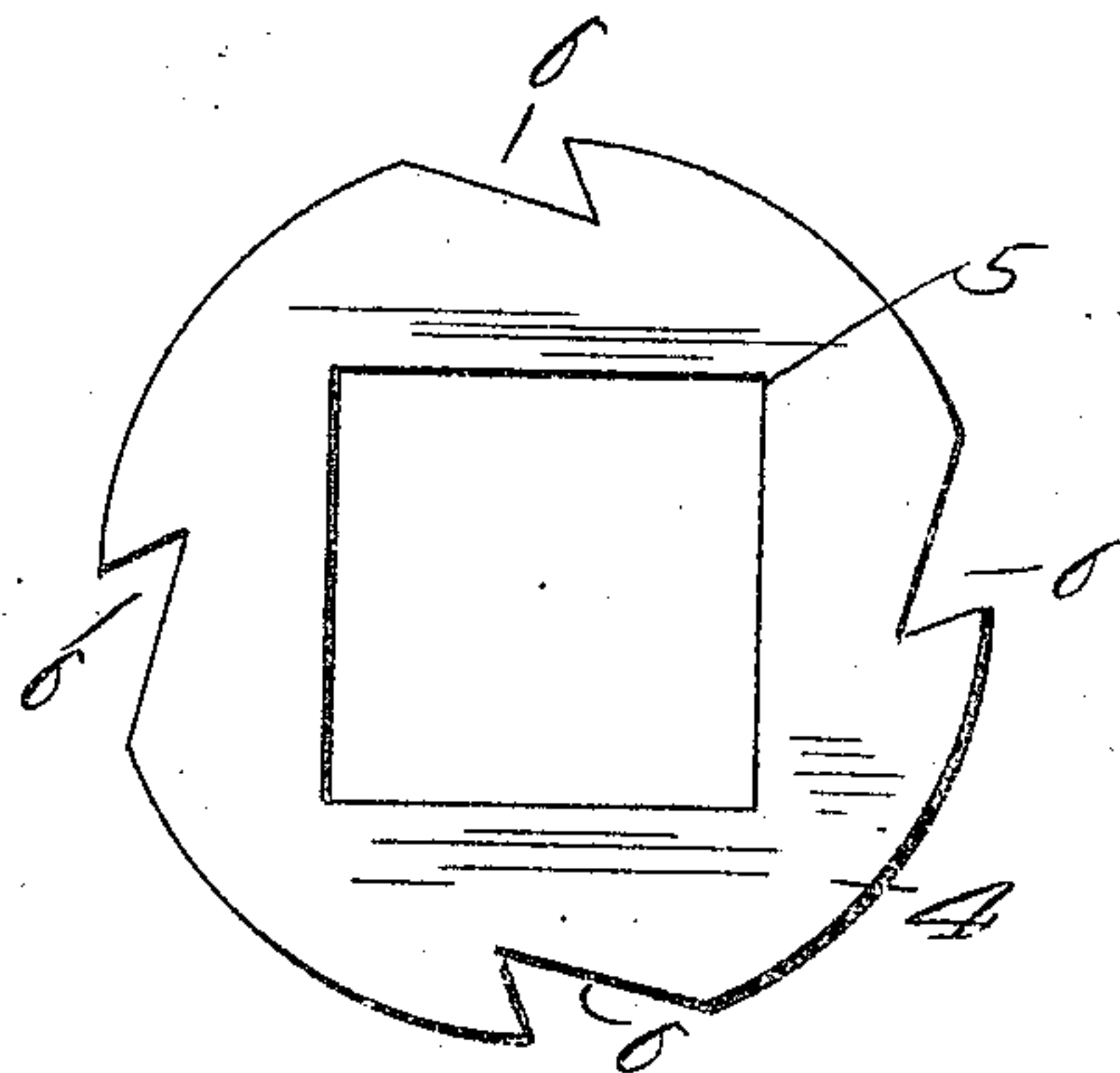
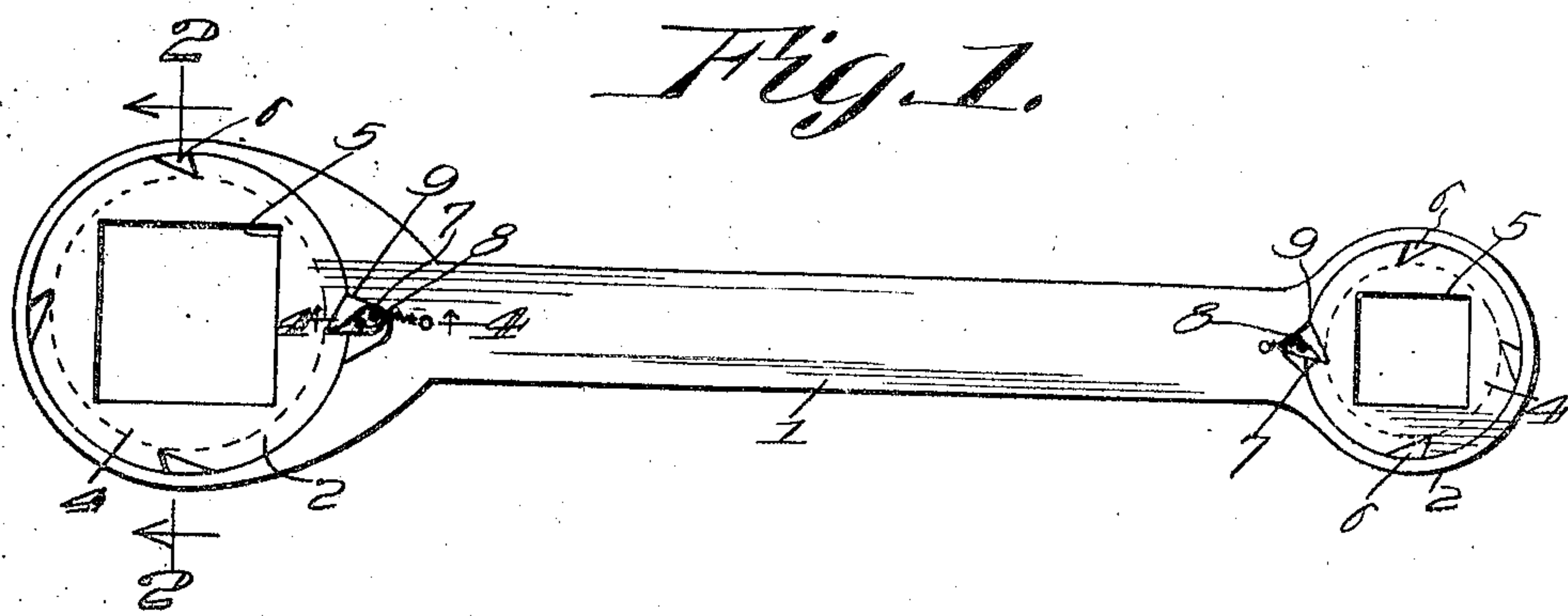


Fig. 4.

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HERMANN E. H. SCHMIEDING, OF HANKINSON, NORTH DAKOTA.

WRENCH.

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To all whom it may concern:

Be it known that I, HERMANN E. H. SCHMIEDING, a citizen of the United States of America, residing at Hankinson, in the county of Richland and State of North Dakota, have invented new and useful Improvements in Wrenches, of which the following is a specification.

As its principal object the invention seeks to provide a wrench particularly designed for removing nuts and similar devices, the wrench possessing the advantages of a socket wrench and having operating means that render it unnecessary to remove the wrench from the bolt when performing the loosening or tightening up operations on the nut.

A further object of the invention resides in the provision of a device of this character which is extremely simple in construction, durable and efficient in operation and inexpensive to manufacture.

To the specific form in which it is shown and described the invention is not to be restricted. Actual reduction to practice may suggest certain desirable changes or alterations and the right is claimed to make any which do not deviate from the scope of the subjoined claim.

In the accompanying drawings:

Figure 1 is a plan view showing the improved wrench.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a plan view of the nut engaging member.

Figure 4 is a section on the line 4—4 of Figure 1.

Referring to the drawings, there is shown a handle member 1 formed with an eye 2 at either end, the eyes, of course, being of different sizes, so that the range of use of the device may be increased. The eyes 2 are of circular formation and on one side of each there is formed an annular flange 3 against which a nut engaging member 4 may seat. The eye itself is of circular formation as is the nut engaging member 4, but the latter is formed with an opening 5, either square or hexagonal in plan, depending upon the character of the nut which it is intended it should engage. The nut engaging member loosely engages in the eye 2 and on its periphery there are formed the notches 6 spaced uniformly apart. These

notches are engaged by a spring held pawl 7, which is pivotally mounted on a pin 8, the latter being suitably mounted on the handle 1 so that the pawl may stand in a recess 9 formed in the handle adjacent the inner periphery of the eye.

In the use of the device, the nut engaging member 4 is placed upon the nut of bolt upon which it is desired to operate. Thereafter the handle is made to engage this member by placing the eye 2 of the former in surrounding relation to the nut engaging member, the pawl 7 being held back by the finger to prevent its impinging upon the side of the nut engaging member. The handle having thus engaged with the nut engaging member, the pressure on the pawl is released when the pawl is permitted to bear upon the periphery of the nut engaging member and when registration with any one of the recesses or notches 6 to engage in said recesses. By this means it is possible to impart oscillating movements to the handle and to impart through it a continuous yet rotary movement to the nut engaging member.

It will be observed that the device is adapted for screwing or unscrewing, it being only necessary to reverse the nut engaging member when applying same to the nut, when the device will work in the reverse direction, because the notches 6 will then be reversely disposed and the pawl 8 which is capable of performing its function no matter to which side of its pivot it is disposed will then operate as a ratchet thus causing the nut engaging member to be moved continuously in the said reverse direction.

From the foregoing description and the accompanying drawings it is believed that a clear enough understanding of the invention will be had to render further description unnecessary.

The invention having been described what is claimed as new and useful is.

A tool of the kind described comprising a handle member having an eye formed at one end, the handle member being formed with an inwardly turned annular flange surrounding the eye, a nut or bolt engaging member having a nut engaging eye formed therein, the said nut engaging member being removably mounted in the eye of the

handle and seated against the flange, the said nut engaging member having notches formed in its periphery, and a pawl provided with a permanently attached actuating spring and pivotally mounted in a recess formed in the handle, the nose of said pawl being engageable with the notches on said nut engaging member to preclude movement of the said member except in one direction, the pawl being swingable to either side of its pivot when the nut engaging member is detached from the handle, whereby the nut engaging member may be placed in the handle for intermittent rotary movement by the handle in either direction. 10 15

In testimony whereof I affix my signature.

HERMANN E. H. SCHMIEDING.