

J. BOWERS.  
Ratchet-Wrenches.

No. 157,115.

Patented Nov. 24, 1874.

Fig. 1

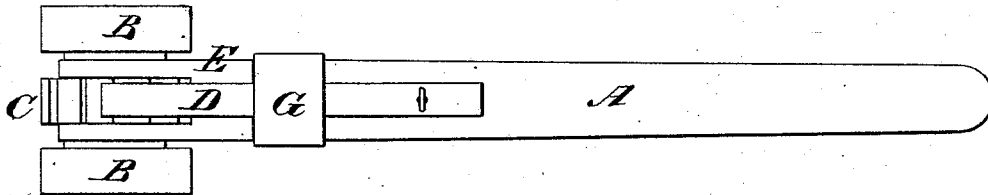


Fig. 2

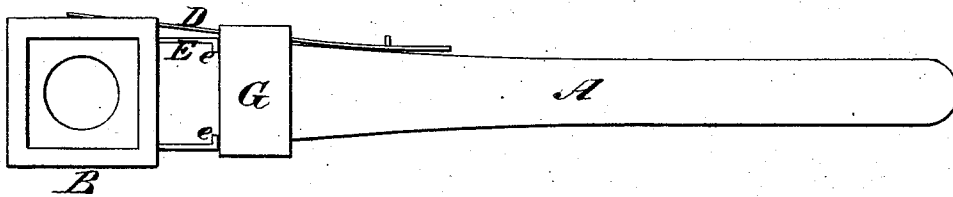
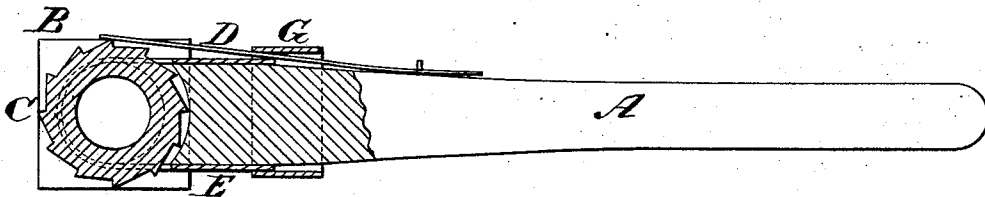


Fig. 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

JACOB BOWERS, OF IOLA, KANSAS.

## IMPROVEMENT IN RATCHET-WRENCHES.

Specification forming part of Letters Patent No. 157,115, dated November 24, 1874; application filed September 12, 1874.

*To all whom it may concern:*

Be it known that I, JACOB BOWERS, of Iola, in the county of Allen and State of Kansas, have invented a new and valuable Improvement in Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my wrench. Fig. 2 is a side view, and Fig. 3 is a vertical sectional view, of the same.

My invention has relation to wrenches for removing nuts from bolts; and it consists in the combination of two nut-holders and a ratchet-wheel, formed of one piece of metal, and applied to a handle by means of a strap, said handle being provided with a spring-pawl for the said ratchet-wheel, as will be hereinafter explained.

In the annexed drawings, A designates the handle of the wrench. B B are two nut-holders, which are of rectangular form, and are cupped to receive nuts.

These nut-holders may be of the same size, or they may be of different sizes, and they may be square, hexagonal, or other shaped nuts.

C designates a ratchet-wheel, which is sepa-

rated by short cylindrical portions from the nut-holders B B, and intended to serve, in combination with a spring-pawl, D, to prevent the nut-holders from turning during the act of screwing up or unscrewing a nut. The cylindrical portions between the nut-holders and the ratchet-wheel are fitted into semicircular bearings in the end of the handle A, and held in place by means of a slotted strap, E. The ends of this strap are hooked and notched into the handle A, as shown at *e e*, Fig. 2. The strap E is firmly confined in place by means of a slide, G, slipped over the ends of this strap, as shown in Figs. 1 and 3.

By slipping the slide G back, as shown in Fig. 3, the strap E, together with the ratchet-wheel and its nut-holders, can be removed from the handle A. Another nut-holder of a different size can be readily substituted.

What I claim as new, and desire to secure by Letters Patent, is—

The removable strap E, notched into the handle A at *e e*, in combination with the slide G, nut-holders B B, ratchet-wheel C, and pawl D, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JACOB BOWERS.

Witnesses:

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L. H. GARRELL.