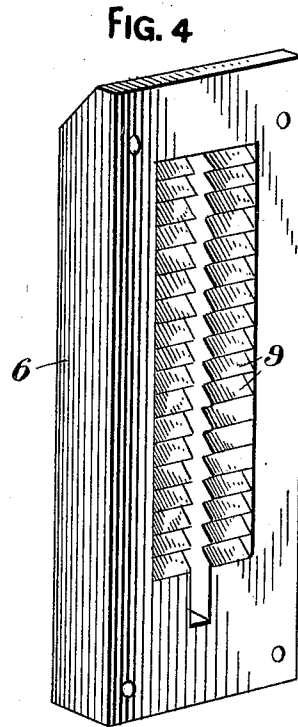
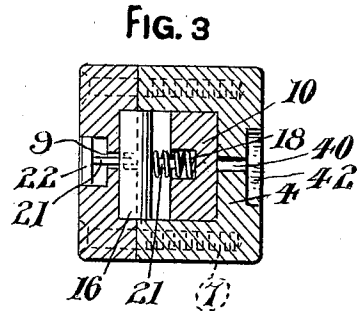
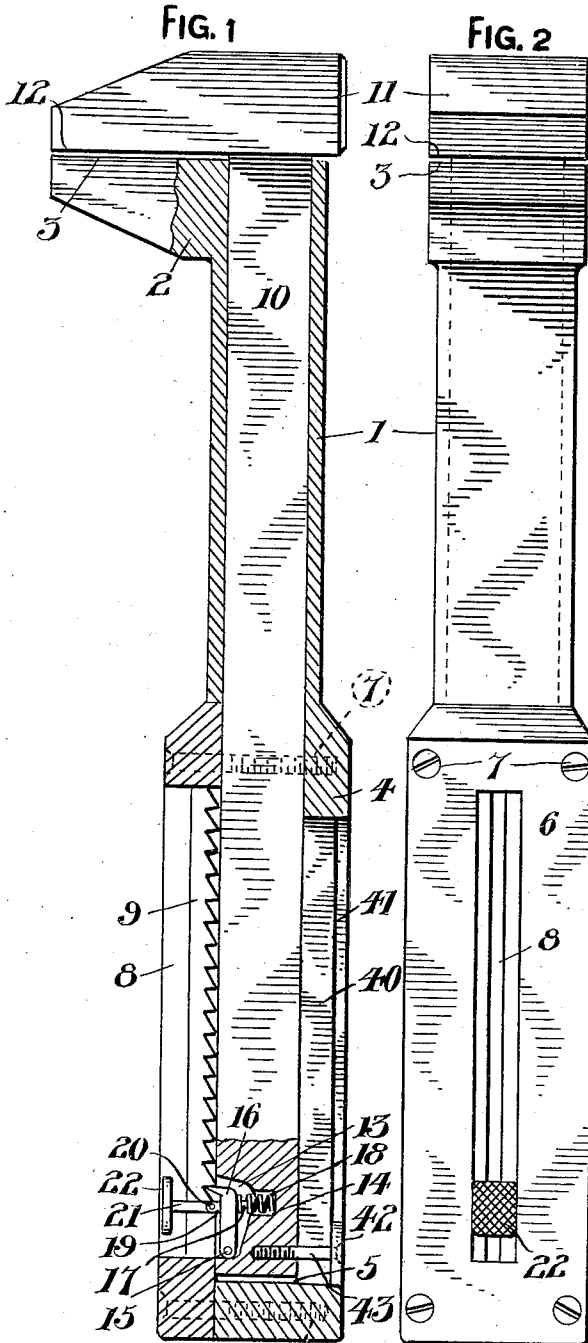


C. A. HOOVER & J. G. HETRICK.
WRENCH.

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1,041,627.

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WITNESSES

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UNITED STATES PATENT OFFICE

CHARLES A. HOOVER, OF FAIR OAKS, AND JELBERT G. HETRICK, OF AMBRIDGE,
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WRENCH.

1,041,627.

Specification of Letters Patent.

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Application filed March 22, 1912. Serial No. 685,496.

To all whom it may concern:

Be it known that we, CHARLES A. HOOVER and JELBERT G. HETRICK, citizens of the United States of America, residing at (1) Fair Oaks and (2) Ambridge, in the counties of (1) Allegheny and (2) Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wrenches and the object of our invention is to provide a strong and durable wrench that has a jaw that can be easily and quickly adjusted.

Another object of our invention is to provide a simple and inexpensive wrench consisting of comparatively few parts that are easy to assemble and not liable to injury when the wrench is roughly handled.

With the above and other objects in view, the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing wherein—

Figure 1 is a side elevation of a portion of the wrench partly broken away and partly in section. Fig. 2 is a front elevation of the wrench. Fig. 3 is a horizontal sectional view of the same and Fig. 4 is a perspective view of the detached handle plate.

A wrench in accordance with this invention comprises a casing 1 that is rectangular in cross section and formed integral with the outer end of said casing is a jaw 2 that extends at right angles from the front side of said casing and presents a flat gripping surface 3, the inner end of the casing 1 terminates in a handle 4 having a longitudinal groove 5 with the walls thereof alining with the interior walls of the casing 1. The front side of the handle 4 is open and accommodates a handle plate 6 that is secured to the handle 4 by screws 7 or other fastening means. The handle plate 6 has a longitudinal slot 8 and the side walls of this slot are provided with rack bars 9, the teeth of said rack bars confronting the groove 5.

Slidably mounted in the casing 1 is a shank 10 that is rectangular in cross section. The outer end of the shank has a jaw 11 presenting a flat gripping surface 12 that con-

fronts the gripping surface 3 of the jaw 2. The inner end of the shank 10 extends into the groove 5 and has the front side thereof provided with a recess 13 and a socket 14.

Pivotally mounted in the recess 13 by a pin 15 is a pawl 16 that engages the rack bars 9. The rear side of the pawl 16 has a small guide pin 17 and encircling said pin is a coiled spring 18 that is seated in the socket 14. The front side of the pawl 16 has an apertured lug 19 and pivotally connected to said lug by a pin 20 is the shank 21 of a push button 22. The push button 22 is located within the slot 8 of the handle plate 6 and the forward movement of said push button is limited by the outer sides of the rack bars 9. The rear side of the handle 4 has a longitudinal slot 40 and the walls of this slot have longitudinal shoulders 41. Sliding upon the shoulders 41 against the walls of the slot 40 is a guide block 42 that has a screw 43 extending through the slot 40 in to the end of the shank 10. The screw 43 and the block 42 guide the shank within the handle. By pushing inwardly upon the push button 22, the pivoted spring pressed pawl 16, carried by the inner end of the shank 10 is moved out of engagement with the rack bars 9 and said shank can be adjusted within the casing 1 to open or close the jaws 2 and 11. The jaws can be closed without pressing upon the push button 22, as the spring pressed pawl 16 recedes over the rack bars 9.

The wrench in its entirety is made of strong and durable metal and while in the drawing we have illustrated a preferred embodiment of the invention, we would have it understood that the invention is susceptible to such changes in size and shape as fall within the scope of the appended claim.

What we claim is:

A wrench comprising a casing, a jaw carried by the outer end thereof, a handle carried by the inner end of said casing and having a groove with the walls thereof alining with the interior walls of said casing, a handle plate secured to said handle, said plate having a longitudinal slot formed therein, rack bars carried by the longitudinal walls of the slot of said handle plate, said handle having a longitudinal slot formed therein, a shank slidably mounted in said casing, a spring pressed pivoted pawl

arranged in the inner end of said shank
and normally engaging said rack bars, a
push button located within the slot of said
handle plate and having the shank thereof
5 connected to said pawl, a guide block slid-
ably mounted in the slot of said handle, and
a screw carried by the inner end of said
shank and connected to said block.

In testimony whereof we affix our signa-
tures in the presence of two witnesses.

CHARLES A. HOOVER.
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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
