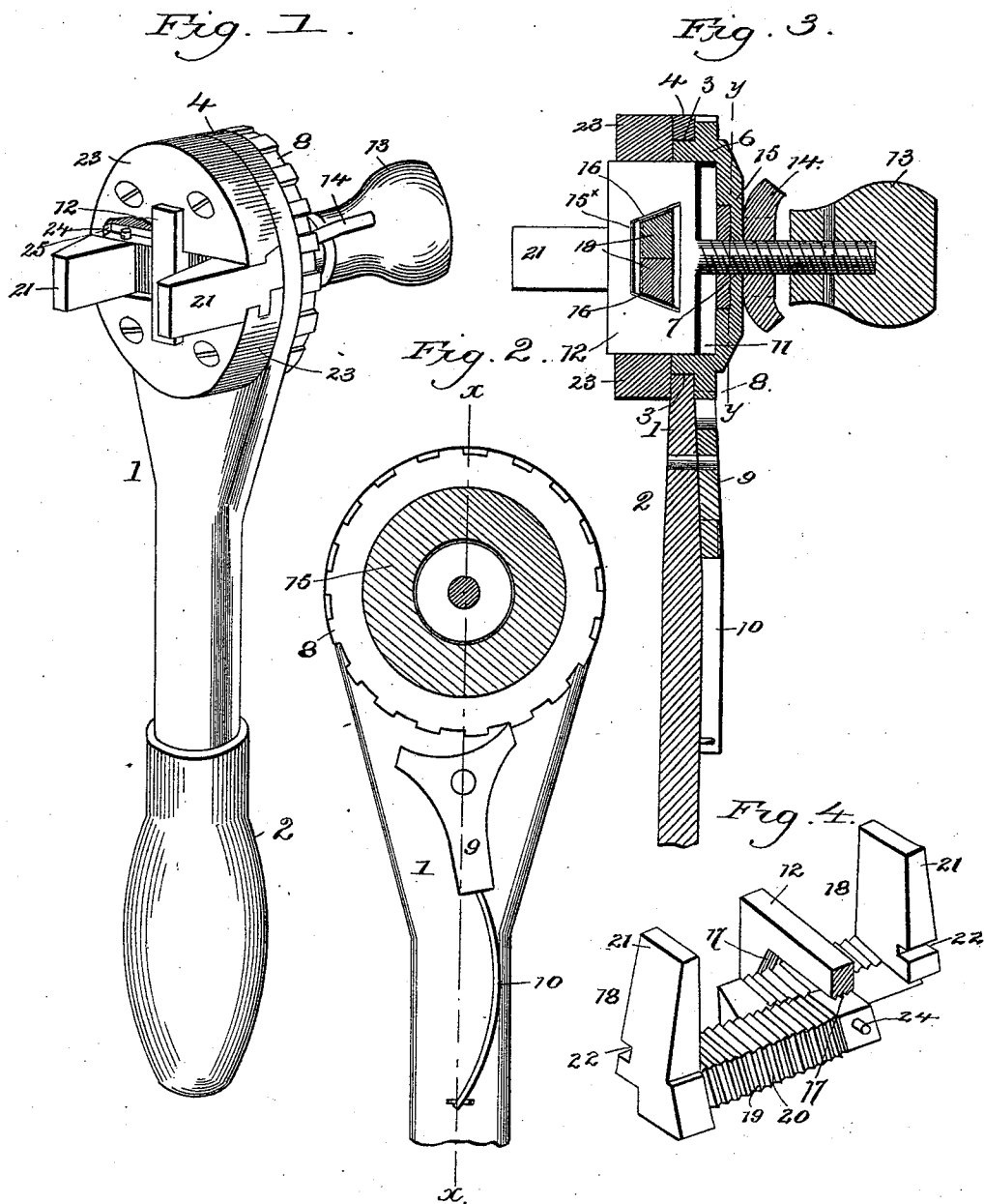


(No Model.)

W. G. ORCUTT.
RATCHET WRENCH.

No. 528,644.

Patented Nov. 6, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

WESLEY G. ORCUTT, OF ASHLAND, MAINE, ASSIGNOR OF ONE-HALF TO
HENRY S. BROWN, OF SAME PLACE.

RATCHET-WRENCH.

SPECIFICATION forming part of Letters Patent No. 528,644, dated November 6, 1894.

Application filed June 4, 1894. Serial No. 513,439. (No model.)

To all whom it may concern:

Be it known that I, WESLEY G. ORCUTT, a citizen of the United States, and a resident of Ashland, in the county of Aroostook and State of Maine, have invented certain new and useful Improvements in Ratchet-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.

This invention relates to ratchet wrenches for removing and applying nuts and for other purposes and has for its object to provide simple and effective means for adjusting the jaws.

With these and other objects in view, the invention consists of the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a wrench embodying the invention. Fig. 2 is a horizontal vertical section on the line $y\ y$ of Fig. 3. Fig. 3 is a longitudinal section on the line $y-y$ of Fig. 2. Fig. 4 is a perspective view of the clamping jaws and their shanks.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a shank having a handle 2, the said shank being flattened at its front end and provided with a surrounding circularly arranged band 4 to form a circular opening 3, in which is rotatably mounted a head 6, having an opening 7 extending centrally therethrough and whose upper portion is provided with a ratchet wheel 8. The said ratchet wheel 8 is adapted to be engaged by a rocking pawl 9 pivotally mounted on the shank 1 and having a spring 10 attached thereto to normally hold it in engagement at one side with the said ratchet wheel. The under part of the said head is also provided with a rectangular recess 11 and therein is fitted a rectangular metallic clamp 12, having a screw-threaded shank extending outwardly through the opening 7 in the head and secured to a handle 13 the screw-threaded portion of the shank being engaged by a clamping screw 14, which bears on the upper por-

tion or crown 15 of the head. The said clamp is formed with an opening 15^x having sloping sides 16 which converge toward the bottom, and the side and bottom walls of the said clamp are grooved as at 17.

Adjustably extending through the clamp are horizontally disposed shanks 18, with outer beveled walls 19, the lower side and the said beveled walls of the shanks being provided with corrugations or grooves, as at 20, for engagement with the grooved walls of the opening in the clamp. The said shanks 18 have at their outer end jaws 21 which are arranged at right angles to the said shanks and have the outer edges of the same near the bottom grooved, as at 22, to receive a rib on an adjacently located segmental head 23. A portion of each jaw on the side provided with the groove 22 projects so as to extend over the inner end of the shank of the adjacent jaw. A pin 24 projects laterally from the inner end of each shank to work in a groove 25 in the opposing side of the segmental head. This groove 25 terminates before reaching the outer surface of the head to form a stop for the pin 24 to engage with and limit the outward movement of the jaws and prevent them entirely from becoming disconnected with the wrench.

In operation, the jaws are adjusted to the size of the nut or other device to be engaged, and the clamp 12 is brought to bear firmly on the shanks, which is accomplished by adjusting the clamping nut 14, and owing to the incline of the beveled walls of the said clamp, the grooves therein are caused to engage the ribs between the grooves of the shanks and the jaws are thereby held in their adjusted position. By holding the handle 13, the wrench may be turned and the rocking pawl is permitted to slip on one movement and bite into a ratchet wall on the opposite stroke. Thus it will be seen that a simple mode of adjustment will be provided which is positive in its action and the jaws will be retained at a proper distance apart without slipping. The adjustment of the jaws can be obtained very quickly and the wrench is adapted to be worked sidewise or horizontally.

Having thus described the invention, what is claimed as new is—

1. In a wrench of the character set forth, the

combination of a pair of jaws having shanks arranged at right angles thereto with outer beveled edges, the said shanks being provided with grooves, a clamp having an opening
5 therein with grooves in a portion of the walls thereof, the side walls of the said shanks being converged or beveled and said clamp also having a screw shank and a clamping nut engaging said screw shank, substantially as and
10 for the purposes specified.

2. In a wrench of the character set forth, the combination of a shank having a handle at one end, the outer portion of said shank being flattened and supplied with a band to form a
15 curved opening, a head rotatably mounted in said opening and having in connection therewith a ratchet-wheel and provided with an

opening therethrough and a lower slot, a clamp adjustably mounted in said slot and having a screw shank extending through said
20 opening, a handle on said shank, a clamping nut engaging said screw shank, a pair of jaws having shanks at right angles thereto engaged by the said clamp, segmental heads on opposite sides of the jaws and a rocking pawl en-
25 gaging the ratchet, substantially as and for the purpose specified.

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

WESLEY G. ORCUTT.

Witnesses:

A. R. FLINT,
F. G. DUNN.