(No Model.)

B. & G. E. CLOW.

NUT WRENCH.

No. 436,073. Patented Sept. 9, 1890.

Fig. 1.

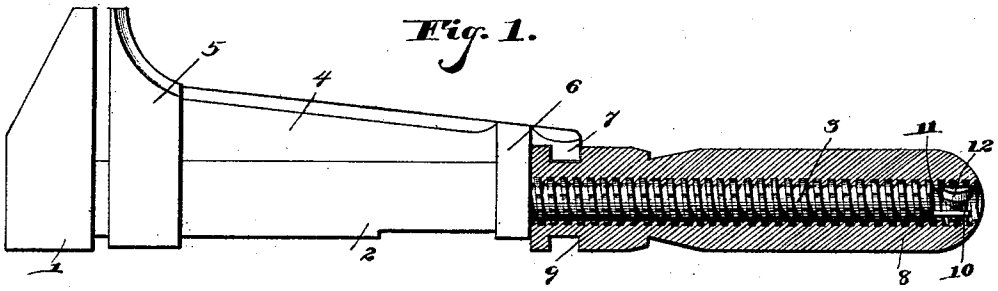


Fig. 2.

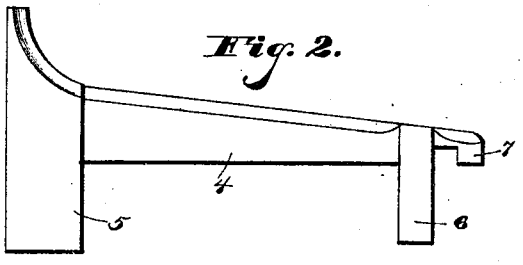


Fig. 3.

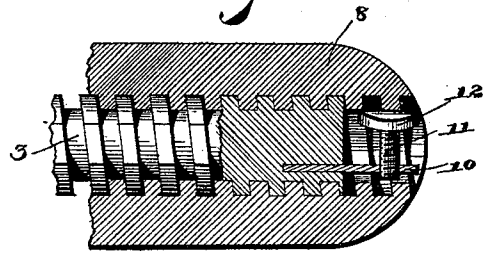


Fig. 4.

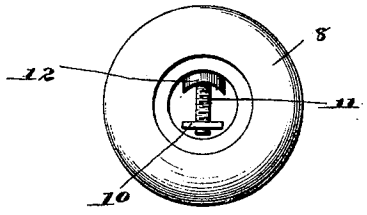
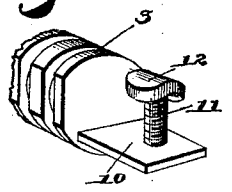


Fig. 5.



Witnesses

Samuel Ker.

David P. Wolhaupter.

Inventors

B. Clow, and
Geo. E. Clow,

By their Attorneys.

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN CLOW AND GEORGE E. CLOW, OF JERSEY CITY, NEW JERSEY.

NUT-WRENCH.

SPECIFICATION forming part of Letters Patent No. 436,073, dated September 9, 1890.

Application filed June 7, 1890. Serial No. 354,577. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN CLOW and GEORGE E. CLOW, citizens of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Nut-Wrench, of which the following is a specification.

Our invention relates to an improvement in nut-wrenches operated by turning the handle; and it has for its object to provide a simply constructed and operated wrench, durable and convenient to handle, and at the same time providing a wrench that will not slip after it has seized the object to be turned, but will clamp firmly and retain its grip until released by turning the handle of the wrench by which it is operated; and the invention consists of a novel attachment to the wrench and an arrangement of parts, hereinafter more fully described, illustrated in the accompanying drawings, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of a nut-wrench constructed in accordance with my invention. Fig. 2 is a detail of the movable jaw. Fig. 3 is an enlarged detail sectional view of the end of the wrench. Fig. 4 is an end view of the same. Fig. 5 is a detail in perspective of the friction-spring attachment.

1 represents the stationary jaw of my nut-wrench, the shank 2 of which is screw-threaded at one end, as at 3. A sliding jaw 4 encircles said shank and works thereon, the jaw proper 5 being provided with the usual opening for the shank of the stationary jaw to pass through, together with the ordinary collar 6, and said sliding jaw is further provided at a slight distance from said collar 6 with a depending lug 7.

8 indicates a metallic handle internally threaded through its entire length, being adapted to work on the threaded portion 3 of shank 2, and is provided at its inner end with an annular groove 9, within which works the lug 7 on said sliding jaw. The space between the lug 7 and collar 6 is completely filled by the portion of the handle from the annular groove to said inner end of the same, and therefore any pressure exerted upon the sliding jaw only tends to more securely hold said jaw in position on the object, as the threads on said shank are cramped within the internally-threaded handle, and thus prevents a turning of the same.

In the end of shank 2, within the handle 8, is inserted a leaf-spring 10, which is provided with a set-screw 11, working therein and adapted to bear against the interior wall of said handle. The cap 12 of said set-screw has a convex face, to insure a compact register with the concave face of the interior of the handle. The tension of said set-screw against the inner wall of the handle forced thereon by the pressure of the spring in the end of the shank creates sufficient friction to make the turning of the handle impossible from any downward pressure unless turned by hand, and by adjusting the nut in the spring any amount of friction desired can be obtained, and by this attachment to the end of the shank within the handle it can be seen that the jaws of the wrench will stay firmly on the object on which they are placed and the full force of the grip retained until it is desired to be removed.

It is thought from the foregoing that the operation of our nut-wrench will be apparent, and that the advantages of the same will be apparent.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a nut-wrench, the combination, with a shank screw-threaded at one end, of a movable jaw sliding on said shank and provided with a depending lug, a metallic handle internally threaded and provided at its inner end with an annular groove, within which works the lug on said sliding jaw, and a friction device attached to the end of said shank within the handle and bearing against the inner surface thereof, substantially as described.

2. In a nut-wrench, the combination, with the shank screw-threaded at one end, of a movable jaw sliding on said shank and provided with a depending lug, a metallic handle internally threaded and provided at its inner end with an annular groove, within which

works the lug on said sliding jaw, a friction-spring projecting from the end of said shank within the handle, and an adjusting-screw in said spring and bearing against the interior surface of said handle, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

BENJAMIN CLOW.
GEO. E. CLOW.

Witnesses:
GUSTAV SCHUMANN,
LUDWIG F. SEGGEL.