(No Model.)

J. N. FARLOW.

FRICTION WRENCH.

No. 440,473. Patented Nov. 11, 1890.

Fig. 1.

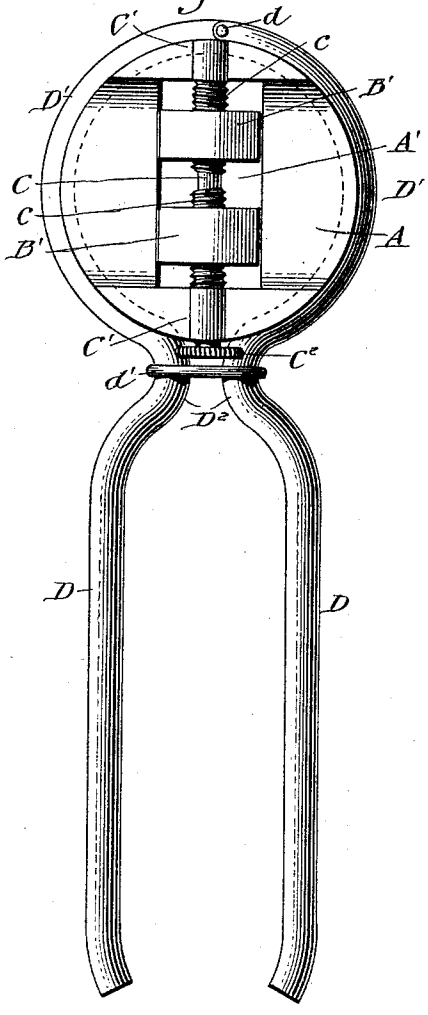
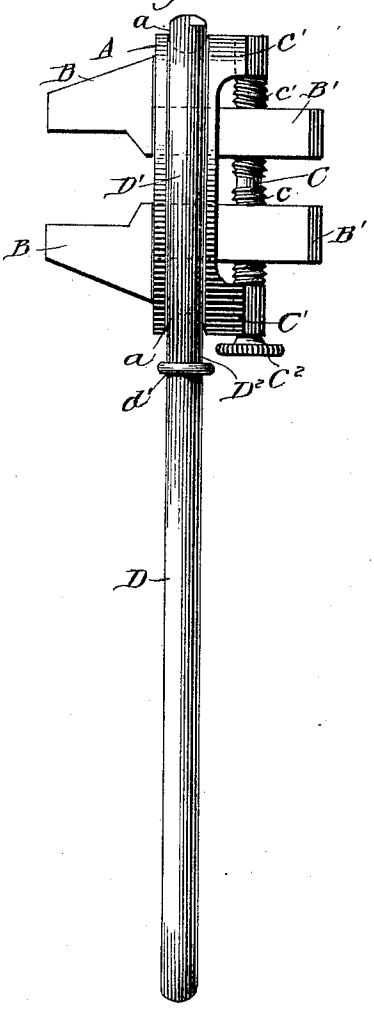


Fig. 2.



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JAMES N. FARLOW, OF LANDER, WYOMING.

FRICTION-WRENCH.

SPECIFICATION forming part of Letters Patent No. 440,473, dated November 11, 1890.

Application filed June 12, 1890. Serial No. 355,170. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. FARLOW, of Lander, in the county of Fremont and State of Wyoming, have invented a new and Improved Friction-Wrench, of which the following is a full, clear, and exact description.

My invention is an improvement in the class of wrenches whose sliding or adjustable jaws are held between hinged clamps forming the handle proper. The novel features are as hereinafter described and claimed.

To this end my invention consists of a circular head-plate having adjustable jaws mounted therein and a handle composed of two members hinged together at one end and adapted to be clasped upon the head-plate. This construction will be hereinafter fully described, and specifically pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is an inverted plan view of the wrench embodying my invention, and Fig. 2 is a side elevation of the same.

The circular plate or head-block A is provided upon its circumference with a groove *a* and with a central rectangular slot or recess A′, and mounted in said recess, so as to move longitudinally therein, are two similar jaws B, which may be made of any desired shape, so as to fit any particular form of nut, and which are provided with projecting shanks B′, which extend through the slot A′, as shown in Fig. 2.

A screw-bolt C is journaled in lugs C′ of the block A, said screw-bolt extending through the shanks B′ of the jaws B, and having a right-and-left thread *c c′* thereon, which fit similar threads in the shanks B′. The screw-bolt C is also provided at one end with a suitable thumb-piece C^2, by means of which it may be turned. It will thus be seen that by turning the screw-bolt in one direction the jaws B will be forced toward each other, and by turning the screw-bolt in the opposite direction the jaws will be forced apart, and as the opposite ends of the screw-bolt are provided with threads having opposite pitch it will be seen that the jaws may be very rapidly operated.

The handle of the wrench is composed of two members D, having a semicircular portion D′ adapted to fit in the groove *a* of the plate A, said portions being pivoted together at the ends by the pivot-pin *d*, and having inwardly-curved necks D^2 on the side of the head-plate opposite their pivoted ends. A clasp *d′* loosely encircles the necks D^2 of the handle, the length of the said clasp being such that it will not permit the handles to drop from the head-plate A, but will permit the members D to be loosened upon the head-plate, so as to turn loosely thereon.

To operate the device the jaws B are adjusted upon a nut and the operator clasps the members D of the handle tightly, thus closing the parts D′ thereof closely upon the head-plate A, so as to prevent the handles from slipping on the plate. The handles are then moved in the desired direction, and when the operator has moved them as far as convenient he loosens his grip thereon, thus loosening the parts D′ upon the plate A, when the handles are moved back into their former position. They are then tightened and moved as before, and this operation is repeated until the nut is sufficiently tightened or loosened.

From the foregoing description it will be seen that the wrench may be readily applied to any form of nut, and that it may be used in many places where an ordinary wrench cannot be applied.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent--

The combination of the clamping-handle D D′, composed of two members pivoted together to form the circular part and handle proper, and the head-block having a circumferential groove and central parallel-sided slot, the sliding jaws B B, and the screw-bolt having right-and-left screw-threads, and journaled in the lugs C′ of said head-block, all as shown and described.

JAMES N. FARLOW.

Witnesses:
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T. C. MORIARTY.