(No Model.)

A. ENOS.

SLIDING JAW WRENCH.

No. 601,954. Patented Apr. 5, 1898.

FIG. 1.

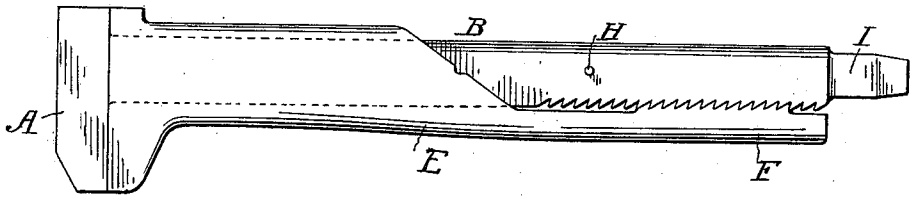
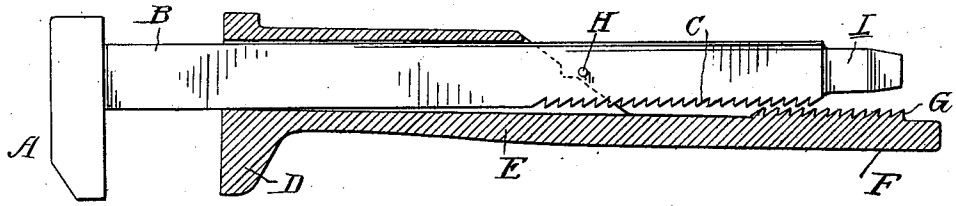


FIG. 2.



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

UNITED STATES PATENT OFFICE.

ALBERTUS ENOS, OF SIOUX CITY, IOWA, ASSIGNOR OF ONE-EIGHTH TO HENRY B. JEROME, OF GORDONSVILLE, MINNESOTA.

SLIDING-JAW WRENCH.

SPECIFICATION forming part of Letters Patent No. 601,954, dated April 5, 1898.

Application filed September 15, 1897. Serial No. 651,723. (No model.)

To all whom it may concern:

Be it known that I, ALBERTUS ENOS, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented a certain new and useful Improvement in Sliding-Jaw Wrenches, of which the following is a specification.

My invention relates to a new and useful improvement in sliding-jaw wrenches, and has for its object to provide an exceedingly simple, cheap, and effective device of this description, the movable jaw of which may be adjusted to any desired point and there held automatically by the grasping of the handle of the device. The friction caused by the resistance of the nut between the jaws pressing the outer ends of the wrench together and the teeth being pushed outward or against each other makes the handle tighten, thus automatically locking the wrench, as will be hereinafter set forth, as the greater the resistance of the nut the hand exerts a correspondingly greater force on the handle, and thus naturally forces the teeth together with greater strain, which produces an automatic locking in accomplishing the desired result; and a further object of my invention is to avoid the use of springs to bring about the adjustment of the sliding movable jaws and to make the wrench out of two pieces of metal only.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of a wrench made in accordance with my improvement, the jaws being closed; and Fig. 2, a view showing the sliding jaw and handle in sections, the ratchet-teeth being out of engagement for the adjustment of the movable jaw.

In carrying out my invention as here embodied, A represents the stationary jaw, formed with or secured upon the shank B, which latter is preferably rectangular in cross-section and has ratchet-teeth C formed upon the under rear edge thereof. The movable jaw D is formed upon the inner end of the handle E, which is hollow and adapted to pass over the shank B, and the cavity therein is slightly flared from front to rear in order that the shank may have a tipping movement therein, the fulcrum of which movement will be the front edge of the movable jaw.

An extension F is formed with the handle and lies substantially parallel with the lower edge of the shank and has thereon the teeth G, which are adapted to engage with the teeth C, and when so engaged to prevent the rearward movement of the movable jaw. A pin H is secured in the shank and prevents the sliding jaw from being accidentally removed therefrom, and this arrangement permits the easy assembling of the device by simply passing the movable jaw over the shank prior to the placing of the pin in position, when the placing of this pin will finish the operation.

From the foregoing description the operation of my improvement will be obviously as follows: When a nut or other object is to be manipulated by the wrench, the sliding jaw is drawn backward on the shank, the two jaws caused to embrace the object, after which the sliding jaw is moved forward until the proper position has been reached, when the teeth G are engaged with the teeth C, and this engagement is maintained by the grasping of the handle, since a portion of the shank is exposed and will be drawn toward the extension of the handle by the grasp of the operator. When the wrench is in this condition, it will be seen that the nut or other object may be manipulated after the manner of an ordinary monkey-wrench, and the jaws will be firmly held in position relative to each other until a new adjustment is desired, which may be quickly brought about, as just described.

One of the principal advantages of my improvement is its exceeding simplicity, the fact that no time is lost in the adjustment of the movable jaw, and that no springs or other delicate parts are used which are liable to become disarranged or broken.

A screw-driver I is formed upon the outer

end of the shank and may be used for all purposes to which such a device is put, thus affording a combination-tool which is especially adapted for light work, such as bicycle-adjustments.

Having thus fully described my invention, what I claim as new and useful is—

In combination, a hollow handle having slanting rear edges, an extension formed on the rear of the handle with teeth on its upper face, a jaw formed on the forward end of the handle, a shank operating through the hollow handle having teeth to engage the teeth of said handle, a pin in the shank adapted to ride on the incline of the handle and a jaw on the shank lying approximately parallel with the jaw of the handle as the jaws are drawn together by the action of the incline and the pin, as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

ALBERTUS ENOS.

Witnesses:
E. G. McCLEMONT,
JOHN STUFFEL.