(No Model.)

P. MANDIGO.

WRENCH.

No. 493,829. Patented Mar. 21, 1893.

Fig. 1.

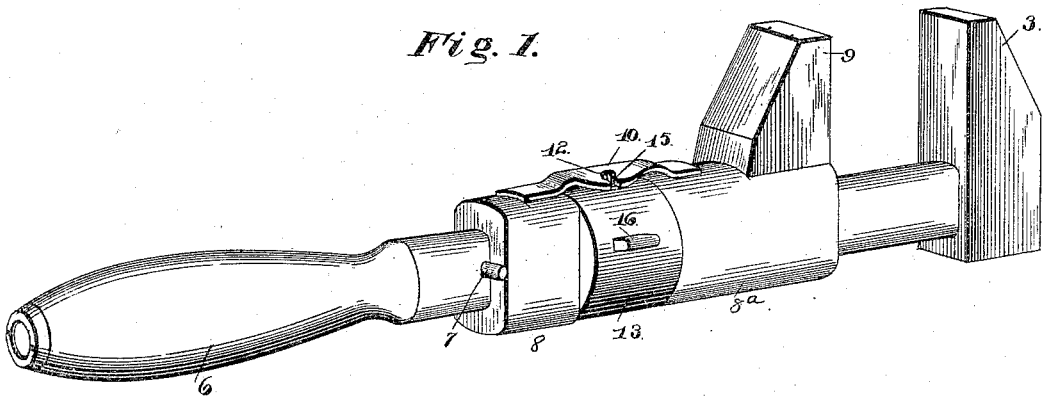


Fig. 2.

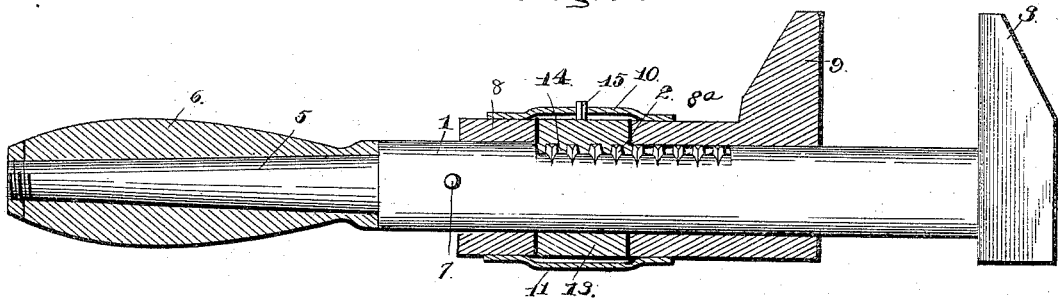


Fig. 3.

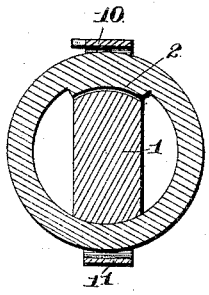
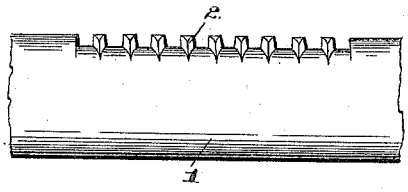


Fig. 4.



Witnesses

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PETER MANDIGO, OF DOVER, NEW JERSEY.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 493,829, dated March 21, 1893.

Application filed February 9, 1892. Serial No. 420,864. (No model.)

To all whom it may concern:

Be it known that I, PETER MANDIGO, a citizen of the United States, residing at Dover, in the county of Morris and State of New Jersey, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to improvements in wrenches, and more particularly to that class thereof known as "sliding jaw."

The objects of my invention are to provide a wrench embodying simplicity, strength, and durability, together with quickness of adjustment.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings—Figure 1 is a perspective view of a wrench constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section. Fig. 3 is a transverse sectional view, taken through the locking-nut or sleeve. Fig. 4 is a side elevation of a portion of the wrench stock.

Like numerals of reference indicate like parts in all the figures of the drawings.

The stock 1 of the wrench is flattened at its opposite sides, the front and rear edges being rounded or curved as shown, and the former edge for a portion of its length being provided with a series of transverse parallel teeth 2, which, at one end, are reduced or beveled as shown. The upper end of the stock is provided with a fixed head or jaw 3. The lower portion of the stock is reduced to form a tang or shank 5, and is fitted with a suitable handle 6, below which the tang is nutted for retention of the handle. Upon the stock above the pin 7 there is mounted for sliding a pair of bored sleeve sections 8 and 8^a, which are connected at their front and rear sides by metal straps 10 and 11, which may be secured to the sleeve sections in any suitable manner or formed integral therewith, as preferred. The bore of the sleeve sections approximate that of the stock so that the stock being elliptical in cross section, or nearly so, the sleeve-sections cannot turn thereon or the jaw 9, which is formed on the upper end of the upper section 8^a get out of alignment with the before described fixed jaw 3. The metal strips serve to space the sleeve sections 8 and 8^a apart forming an intermediate recess. One edge of the strap 10, or what is really an end of the recess is provided with a preferably key-hole slot or recess 12. Although the sleeve-sections are spaced apart they really constitute a single sleeve having a recess, in that both sections are rigidly connected and move as one sleeve; hence, I have employed the term sleeve in the further description and claims. Located in the recess of the sleeve and upon the shank or stock 1, is a rotatable or oscillating nut 13, which is cylindrical both externally and internally, and is provided at its inner side with a series of thread-sections or teeth 14, agreeing with the teeth 2 of the stock and having the ends of its teeth beveled or reduced as shown so as to readily engage with or take between the teeth 2 of the stock. From a point opposite the teeth 14 a split spring-pin 15 projects from the nut, the same being in lateral alignment with the key-hole slot 12 of the strap 10; and at one side of the split pin or stud a lug 16 is formed upon the exterior of the nut, adapted to limit the movements of the nut by coming in contact with the rear strap 11. This completes the construction of the wrench, and the operation of the same is as follows:

In order to adjust the jaws to adapt them to operate upon a nut, it is simply necessary to give the nut 13 a partial rotation to the right, which disengages the teeth of the nut and stock, and permits a sliding of the nut and sleeve 8 to any point along the stock, so that the jaw 9 of the sleeve becomes adjusted with proper relation to the jaw 3. It now simply remains, when such adjustment has been acquired, to return the nut to its former locked position, such being accomplished by a partail rotation of the nut to the left, so that its teeth are re-engaged with those of the stock, and thus the sleeve and nut prevented from longitudinal movement. When in this position, the spring split-pin 15 passes through the narrow portion and into the larger portion of the key-hole opening 12 of the strap 10. As the pin passes through the narrow portion of the key-hole opening, its split portions compress to facilitate such passage, and immediately after re-open or spread in the larger portion of the key-hole opening and

thus the nut is in a manner locked against accidental oscillation, but may be readily oscillated by hand when the operator desires.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I provide a wrench composed of very few parts, all of which are easily manufactured and of simple formation, and may readily be assembled to form the wrench. Furthermore, that the wrench is strong and durable, not likely to get out of repair, and may be readily adjusted in a very short time to fit any size of nut.

What I claim is—

1. In a wrench, the combination with a stock terminating at its outer end in a fixed jaw, and below the same at its edge provided with transverse teeth beveled at their ends, of a jaw-carrying sleeve recessed intermediate its ends mounted non-rotatably but longitudinally movable upon the stock, and a nut loosely mounted in the recess of the sleeve and adapted to rotate upon the stock; a device carried by the nut for locking it upon the sleeve, said sleeve being provided at its inner side with a series of short transverse teeth beveled at their ends and adapted to engage with the teeth of the stock, and having the remaining portion of its inner periphery plain or untoothed, substantially as specified.

2. In a wrench, the combination with the stock, the front edge of which is provided with transverse teeth and the outer end of which is provided with a fixed jaw, of a jaw-carrying sleeve bored to fit loosely upon the stock and having a transverse opening the edges of which are connected by front and rear straps, the front being provided with a key-hole notch, of a nut mounted in the transverse opening of the sleeve and adapted for rotation upon the stock, said nut being provided with a transverse series of internal teeth for engaging those of the stock, a pin projecting from the exterior of the nut and adapted to engage the notch when the teeth are in engagement, and a lug at one side of the pin for abutting against the rear strap, substantially as specified.

3. In a wrench, the combination with the stock, the front edge of which is provided with transverse teeth and the outer end of which is provided with a fixed jaw, of a jaw-carrying sleeve bored to fit loosely upon the stock and having a transverse opening the edges of which are connected by front and rear straps, the front being provided with a notch, of a nut mounted in the transverse opening of the sleeve and adapted for rotation upon the stock, said nut being provided with a transverse series of internal teeth for engaging those of the stock, a split spring-pin projecting from the exterior of the nut and adapted to engage the key-hole notch when the teeth are in engagement, and a lug at one side of the pin for abutting against the rear strap, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PETER MANDIGO.

Witnesses:
CHAS. F. HELLANDER,
HARRY R. SHUPE.