

(No Model.)

G. W. BUFFORD.
WRENCH.

No. 489,454.

Patented Jan. 10, 1893.

Fig.1.

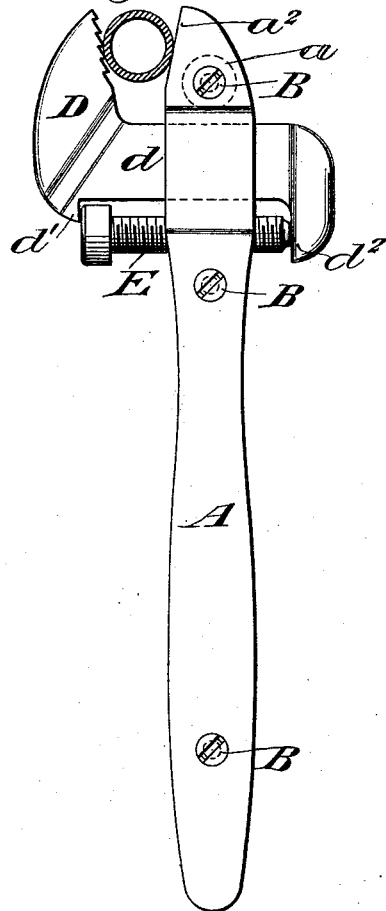


Fig. 2.

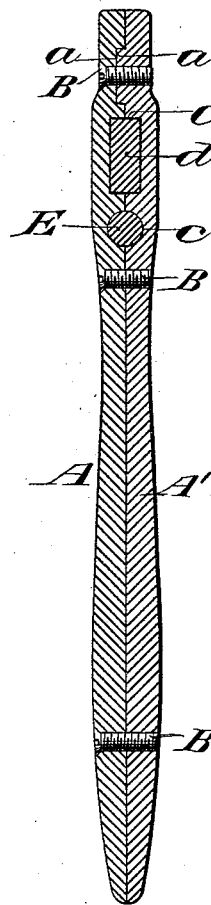
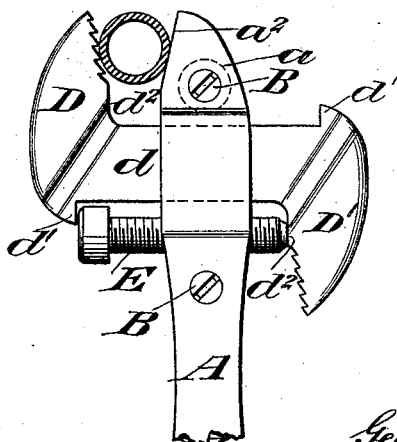


Fig. 3.



Witnesses:-
D. H. Hayport
C. Sundgren

*Inventor:-
George W Bufford
by attorneys
Frost & Sewald*

UNITED STATES PATENT OFFICE.

GEORGE W. BUFFORD, OF ITHACA, NEW YORK.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 489,454, dated January 10, 1893.

Application filed April 21, 1892. Serial No. 429,986. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BUFFORD, of Ithaca, in the county of Tompkins and State of New York, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

My invention relates to an improvement in pipe wrenches in which an adjustable jaw is secured to a handle and under the control of a single screw seated in the handle to be thrust in directions toward and away from a stationary jaw.

My invention further contemplates a sectional handle, the parts of which may be either detachably or permanently secured together to hold the adjustable jaw and its adjusting screw assembled.

A practical embodiment of my invention is represented in the accompanying drawings in which

Figure 1 is a view of the wrench in side elevation. Fig. 2 is a longitudinal section through the handle from side to side, and Fig. 3 is a partial view in side elevation of a modified form of movable jaw.

The handle is shown in the present instance as formed of two half sections A and A' separated from front to back and held together by screws B. To lock the sections against longitudinal displacement, I provide one with a recess *a* and the other with a tongue or projection *a'*, adapted to fit within the recess *a* when the two sections are brought snugly together.

The socket C for the reception of the shank *d* of the movable jaw D, is formed in the adjacent faces of the sections A and A', and, as a matter of preference, I form said opening about half in one section and half in the other, and thicken the sections in the neighborhood of said opening in order to maintain the desired strength.

A short distance from the socket C, I provide a screw threaded socket *c* for the reception of an adjusting screw E. The length of the screw E corresponds to the distance between two abutments *d'* and *d''* on the shank of the movable jaw and when the parts are assembled, the said adjusting screw occupies a position between said abutments, with its head in proximity to one and its point in proximity to the other. The movable jaw D

has its biting face set at right angles or somewhat oblique to the shank *d* and the stationary jaw is formed by beveling the end of the handle, as shown at *a*².

In the form shown in Fig. 3, the shank *d* is provided with a second gripping jaw D', at its opposite end from the jaw D and extending in the opposite direction from the shank. When the jaw D becomes worn, the shank may be reversed in its socket and the jaw D' brought into use.

To assemble the parts, the shank of the adjustable jaw is placed in its socket in one of the sections A or A', the screw E is then placed in position in its part socket and between its abutments, and the other of the sections A or A' is then placed in position and secured to the section in which the parts were placed. When the sections A and A' have been secured together, the movable jaw and the adjusting screw are both locked to the handle. By turning the screw E in one direction or the other, the movable jaw may be caused to approach or recede from the stationary jaw as may be desired.

It is obvious that rivets might be employed in the place of the screws B to permanently secure the sections A and A' together, and also that the sections A and A' might be other than half sections.

What I claim is:

1. In combination, a handle provided with a stationary jaw, a movable jaw seated in the handle and provided on its shank with abutments spaced apart and facing one another and an adjusting screw having an engagement at its opposite ends with the abutments on the shank of the movable jaw to thrust it in opposite directions, substantially as set forth.

2. In combination, a handle having a stationary jaw, a reversible movable jaw seated in the handle and provided with abutments on its shank and a screw having an engagement with the handle and with the abutments for adjusting the movable jaw, substantially as set forth.

GEORGE W. BUFFORD.

Witnesses:

H. P. JOHNSON,
G. H. SLOCUM.