(No Model.)

G. W. DAVENPORT.

WRENCH.

No. 279,722. Patented June 19, 1883.

Fig. 1.

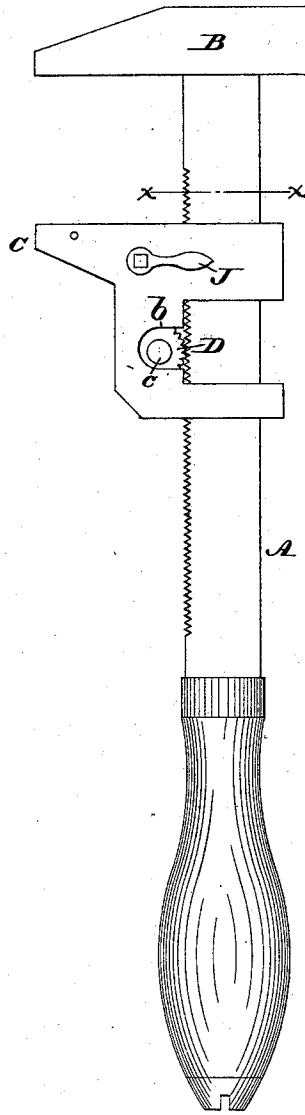


Fig. 2.

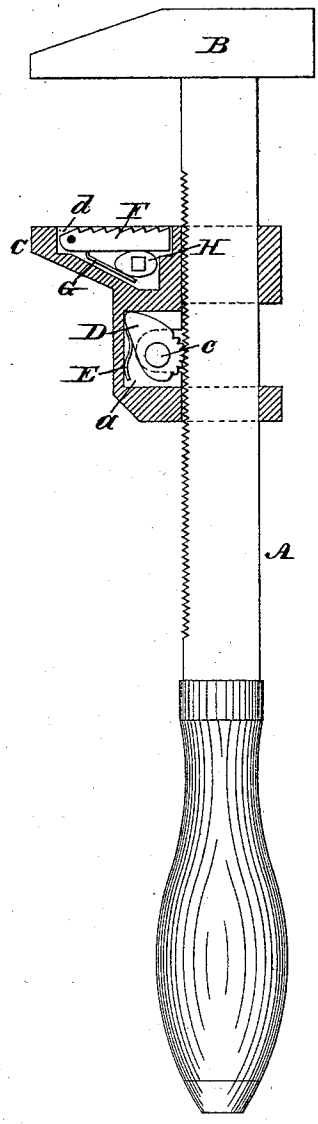
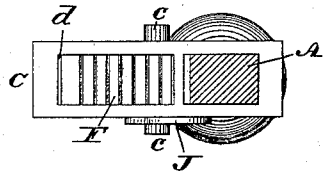


Fig. 3.



WITNESSES:

A. P. Grant,

W. F. Kirches

INVENTOR:

George W. Davenport,

BY Johnson & Siedersheim

ATTORNEY.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. DAVENPORT, OF PHILADELPHIA, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 279,722, dated June 19, 1883.

Application filed April 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DAVENPORT, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Wrenches, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of a wrench embodying my invention. Fig. 2 is another view thereof, partly sectional. Fig. 3 is a horizontal section in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of means for locking the movable jaw of a wrench, as will be hereinafter set forth.

It also consists in so constructing the movable jaw whereby it is adapted for the purposes of a pipe-wrench.

Referring to the drawings, A represents the bar of a wrench, and B C the fixed and movable jaws, respectively, thereof. The front portion of the movable jaw is extended toward the handle, forming a chamber, *a*, in which is fitted a cam-shaped locking-piece, D, the inner edge of which is serrated to engage with serrations on the contiguous side of the bar A, said piece being held against the bar by the action of a spring, E, which is suitably applied and connected within the chamber *a*, it being noticed that the top of the piece projects into or toward the upper or outer corner of said chamber *a*. In the side walls of said chamber *a* are recesses *b*, which extend in the direction from the bar A and receive the gudgeons *c*, which project laterally from the locking-piece D, whereby the latter may be moved by hand from disengagement with the bar.

The operation is as follows: The jaws may be separated by applying the fingers to the gudgeons *c* and moving the piece D from the bar A. This permits the jaw C to be shifted, and when the piece D is let go, it immediately engages with the bar. As soon as the jaws are fitted to the article to be grasped and the wrench is operated, the pressure on the jaw C has a tendency to force the top of the piece D toward the handle and outward, and this causes the serrated portion of the piece to move inward and away from the handle, whereby the piece is tightened to a greater extent against the bar, and thus the movable jaw is most securely held and prevented from slipping during the operation of the wrench. When the jaw C is moved toward the fixed jaw B the piece D yields and rides freely over the serrations of the bar A, and as soon as the motion is completed the piece engages with the bar, being forced thereagainst by the action of the spring E, as has been stated. In the working-face of either of the jaws—in the present case the movable jaw—is a recess, *d*, which is occupied by a serrated plate, F, which in its normal position is flush with the remainder of the face of the jaw, said plate being pivoted to the jaw, and having connected with it a depending arm, G.

H represents a rotating button or finger, which occupies a position within the recess *d*, and is adapted to bear upwardly against the plate F and downwardly against the arm G. The button has its axis mounted on the walls of the recess, the outer end of the same carrying a finger-piece, J, whereby the button may be readily operated.

It will be seen that when the button is rotated in one direction it moves the plate F beyond the face of the jaw, so that its serrated face is presented, and this, in connection with the other jaw, adapts the wrench to be employed as a pipe-wrench. By rotating the button in the other direction it bears against the arm G, and thus moves the plate into the recess *d*—the normal position of the same—and retains it there.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The movable jaw C, provided with a chamber, *a*, and recesses *b*, in combination with a bar, A, a locking-piece, D, and a spring, E, bearing against the back of said locking-piece, said spring and locking-piece being arranged within said chamber *a*, and said locking-piece being provided with gudgeons which set in said recesses and are movable away from said bar, substantially as set forth.

2. A plate having serrations on its upper face, in combination with a jaw recessed to receive said plate and allow it to be moved inward or outward, and a turn-button or cam

arranged to operate against the back of said plate, substantially as and for the purpose set forth.

3. The flat plate F, having a serrated outer face, and provided with an arm, G, in combination with the turn-button H, operating on said arm for the purpose set forth, and one of the jaws of a wrench, which is recessed to receive said plate and turn-button, substantially as set forth.

GEORGE W. DAVENPORT.

Witnesses:

JOHN A. WIEDERSHEIM,

A. P. GRANT.