

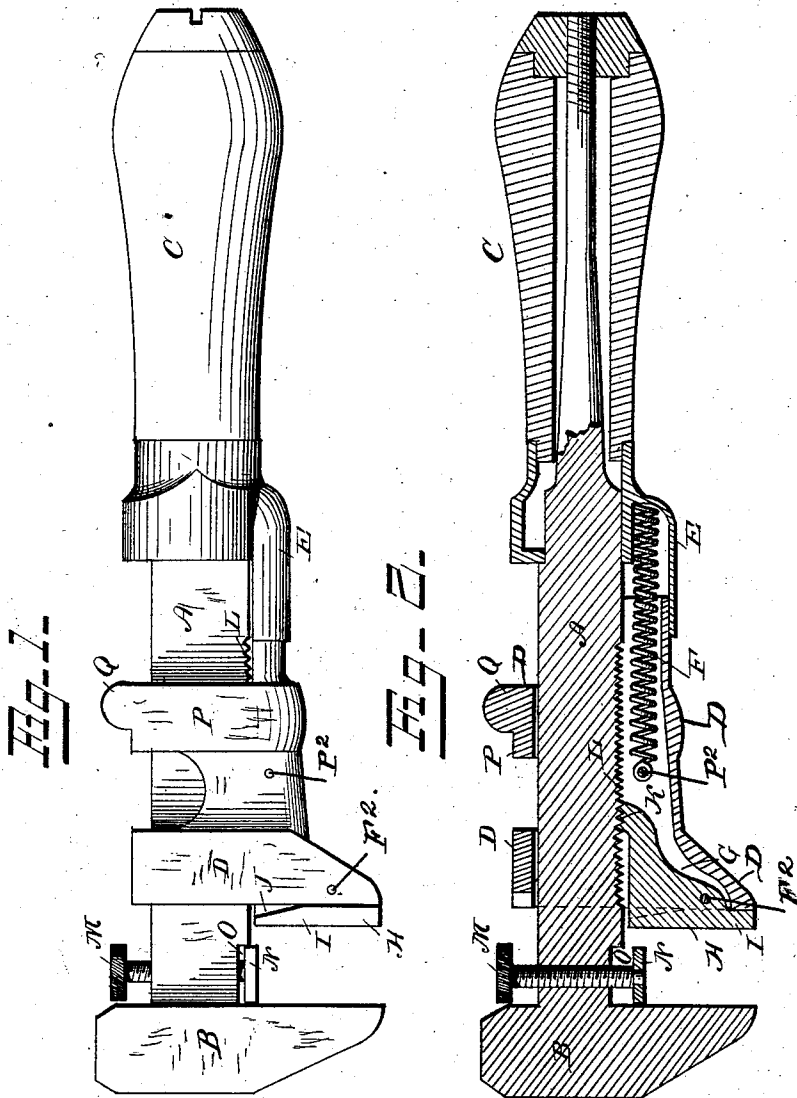
(No Model.)

B. F. STOCKFORD.

WRENCH.

No. 281,318.

Patented July 17, 1883.



WITNESSES
F. L. Curand.
J. R. Little.

B. F. Stockford
INVENTOR
by E. Snow & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

BENJAMIN F. STOCKFORD, OF STURGIS, MICHIGAN.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 281,318, dated July 17, 1883.

Application filed March 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. STOCKFORD, a citizen of the United States, residing at Sturgis, in the county of St. Joseph and State of Michigan, have invented a new and useful Wrench, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to wrenches; and it consists in certain improvements in the construction of the same, whereby an ordinary monkey-wrench is converted into a ratchet-wrench, as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a side view of my improved wrench, and Fig. 2 is a longitudinal sectional view.

The same letters refer to the same parts in both figures.

A in the drawings represents the shank of my improved wrench, which is provided at one end with the fixed head or jaw B and at the other end with a handle, C.

D is a frame, which is arranged to slide upon the shank A. The latter is formed with a suitable casing, E, inclosing a spring, F, which serves to force the sliding jaw outward toward the fixed jaw B, the upper end of said spring being secured to a pin, P², passing transversely through sliding frame D, and its lower end resting in the socket or casing E. The face of the frame D has a recess, G, in which is pivoted the movable jaw H, the pivot-pin or fulcrum of which, F², is near the front end or nib of said sliding frame, said jaw having a face-plate, I, the under side of which is beveled on the side of the pivot nearest the shank A, as shown at J. The lower end of the jaw H has teeth K, engaging teeth L, formed upon the side of shank A, as shown.

M is a thumb-screw, passing transversely through the shank A, just below the head B, and carrying at its end a plate, N, for the accommodation of which a recess, O, is formed in the side of the shank.

The collar P of the sliding jaw D is provided with a thumb-piece, Q, by means of which it may be readily manipulated.

The operation of my invention is as follows:

The nut is grasped in the usual manner between the fixed and sliding jaws. When the wrench is turned in one direction, the side of the nut presses against the outer end of the face-plate of the pivoted dog or pawl H, thus forcing the teeth K of the latter into engagement with the teeth L of the shank, and thereby preventing the sliding frame from moving upon the shank, thus causing the nut to be held securely and be turned with the wrench. When the latter is turned in the opposite direction, the nut presses against the inner end of the face-plate of jaw H, thereby releasing the teeth of the latter from those of the shank, and enabling the sliding frame to move freely back upon the shank against the tension of the spring F. The wrench will thus turn upon the nut until the limit of its movement has been reached, when, by reversing the motion, the nut will again be grasped and turned as before. In order to always insure the successful operation of this device, it is desirable that the nut should be grasped and held by the jaws just over the pivoting-point of the jaw H. To effect this easily, especially when small nuts are operated upon, I avail myself of the plate N, which may be readily adjusted by the screw M, and which serves as a gage, and enables the wrench to be conveniently adjusted upon the nut in exactly the right position. The sliding frame may be manipulated by the thumb-piece Q.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. As an improvement in wrenches, the combination of a shank having a fixed jaw and provided with teeth in one side, a sliding frame, a jaw pivoted in a recess in the face of and near the front or nib of the latter, and having a face-plate beveled on its under inner side, and teeth adapted to engage those in the face of the shank, and a spring arranged to force the sliding jaw outward toward the fixed jaw, as set forth.

2. The combination of the shank or handle having a fixed jaw, the sliding frame, a jaw pivoted in a recess in the face of and near the front end or nib of the latter, and having a

face-plate beveled on its under inner side, and
teeth adapted to engage teeth in the side of
the shank, a spring arranged to force the slid-
ing jaw outward toward the fixed jaw, and a
5 screw working transversely in the shank just
below the fixed jaw, and carrying a gage-plate,
as set forth.

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

BENJAMIN F. STOCKFORD.

Witnesses:

WM. M. ALLMAN,
NELSON I. PACKARD.