

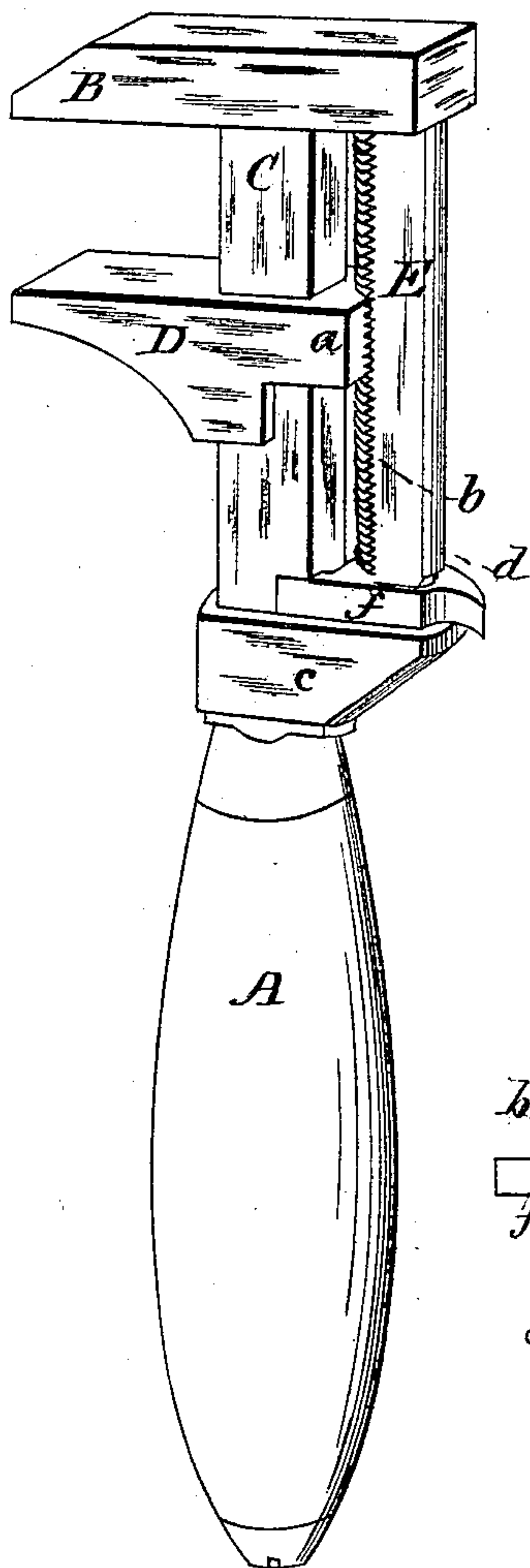
(Model.)

G. C. FINK.  
NUT WRENCH.

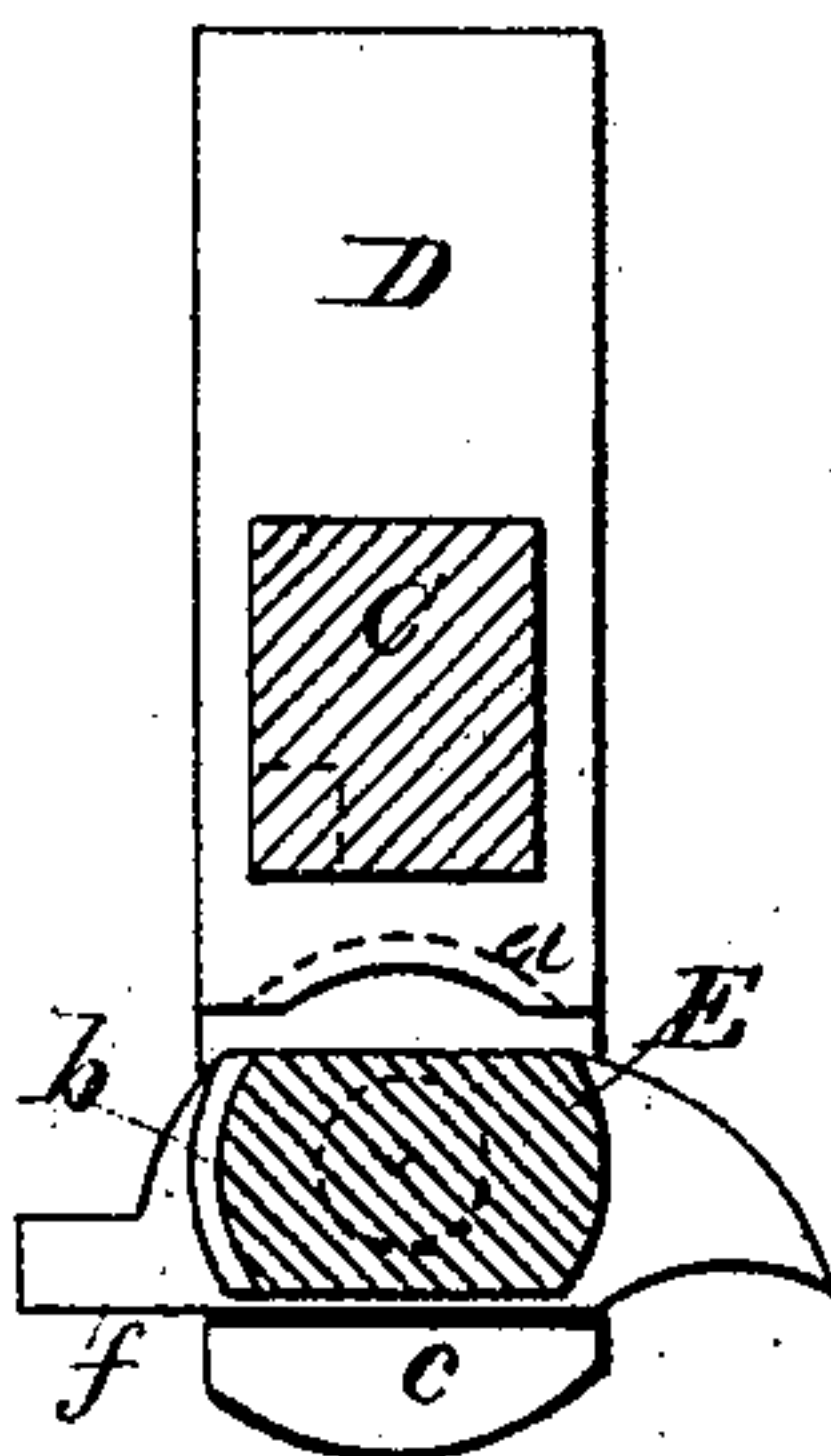
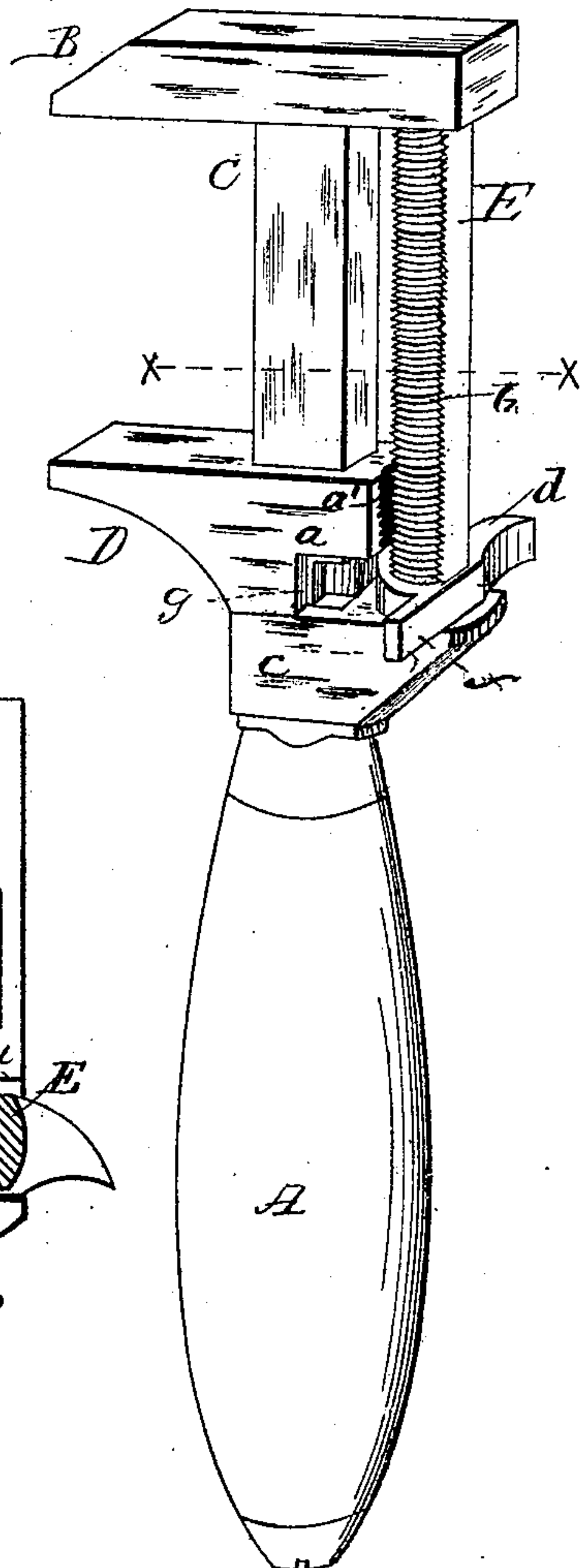
No. 245,290.

Patented Aug. 9, 1881.

*Fig. 1*



*Fig. 2.*



*Fig. 3*

Witnesses:  
Birdie C. Fink  
James Mich' Ballan

Inventor  
Simon C. Fink

# UNITED STATES PATENT OFFICE.

GILMORE C. FINK, OF ST. PETERSBURG, PENNSYLVANIA.

## NUT-WRENCH.

SPECIFICATION forming part of Letters Patent No. 245,290, dated August 9, 1881.

Application filed November 12, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, GILMORE C. FINK, of St. Petersburg, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in nut-wrenches, commonly known as "monkey-wrenches," and it has for its object simplicity of construction, durability, efficiency, and cheapness in first cost; and it consists, essentially, in the combination and arrangement of parts hereinafter more fully described and claimed—that is to say, the combination of the central bar having the stationary jaw at one end and an abutment at the other, with a sliding jaw having its rear face provided with semi-circular serrations, and a cam-spindle having four sides, one of which only is provided with transverse serrations, said cam-spindle having also a thumb-piece secured thereon to operate the same when required.

Referring more particularly to the accompanying drawings, and to the letters of reference marked thereon, Figure 1 represents a perspective view with all the parts in position ready for use. Fig. 2 also shows a perspective view, the parts being released for the purpose of adjusting the movable jaw. Fig. 3 is a transverse section on line *xx* of Fig. 2.

A shows the handle, which may be of any approved construction; B, the rigid head or jaw; C, the bar, and D the movable or sliding jaw. This jaw D is of the usual construction, except that it has cut on its head, *a*, a series of serrations, *a'*, sufficiently out of the way to prevent them from being battered when the wrench is carelessly thrown down.

E shows the cam-spindle, having serrations *b* to correspond with those on the sliding jaw, but only on one of its sides. One end of this cam-spindle E is journaled in the rigid head B, and the other end in a metal abutment, *c*,

the abutment *c* forming the junction and support of the bar C and handle A.

On the end *d* of the cam-spindle is located a thumb or finger piece, *f*, which piece is rigidly fixed to said spindle in any approved manner, but preferably as shown.

When the wrench is open to its full capacity, the movable jaw resting against the abutment *c*, a space or recess, *g*, is formed. This recess *g* is for the purpose of receiving the thumb-piece *f* when it is turned down to turn the cam-spindle and clutch the movable jaw therewith.

The operation is briefly as follows: When it is desired to adjust the wrench to any size required the thumb-piece *f* is turned as shown in Fig. 2. This movement releases the clutch, when the movable jaw may be adjusted to the desired point. The thumb-piece is now turned as seen in Fig. 1, also turning the spindle, the serrations fitting into the corresponding serrations or notches on the back of the sliding jaw, thus rigidly clutching or locking it, and so on, backward or forward, as the case may be. By this simple contrivance much time is saved that would be otherwise wasted by the old method of turning the screw from end to end.

I am aware that the movable jaw of wrenches has been provided with two parallel apertures extending therethrough, one of said apertures being smooth to receive the central bar of the wrench, and the other provided on opposite portions of its circumference with two rows of internal serrations, and also with two opposite smooth grooves to receive and inclose a rod carrying two rows of serrations on its periphery, the movable jaw being thereby capable of adjustment by sliding upon said rod, and retained in position by giving a quarter-revolution to the latter, this construction being found in patent No. 162,500 of 1875. The disadvantages of this construction, which I avoid by my construction, are the necessity of boring through the rear portion of the movable jaw and grooving the aperture thus made on opposite sides, both transversely and longitudinally; and another advantage obtained by my construction is that the diametrical size of the serrated jaw-supporting rod E is not limited to a small size by the width of the jaw, but can be made even wider than said jaw, so



as not to bend under the pressure brought upon it by the latter when in use.

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

1. In a nut-wrench, the combination of the central bar, C, having the stationary jaw B at one end and abutment *c* at the other, with sliding jaw D, having its rear face provided with semicircular serrations *a'*, and cam-spindle E, having four sides, one of which only is provided with transverse serrations, substantially as and for the purpose described.

2. The combination of the central bar hav-

ing a stationary jaw at one end and the abutment *c* at the other, with sliding jaw D, having its rear face provided with semicircular concave serrations *a'*, cam-spindle E, having serrations on one of its sides, and thumb-piece *f*, rigidly fixed to one end of the cam-spindle, substantially as and for the purpose described.

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

GILMORE C. FINK.

Witnesses:

JAMES NICHES. CALLAN,  
BIRDIE E. FINK.