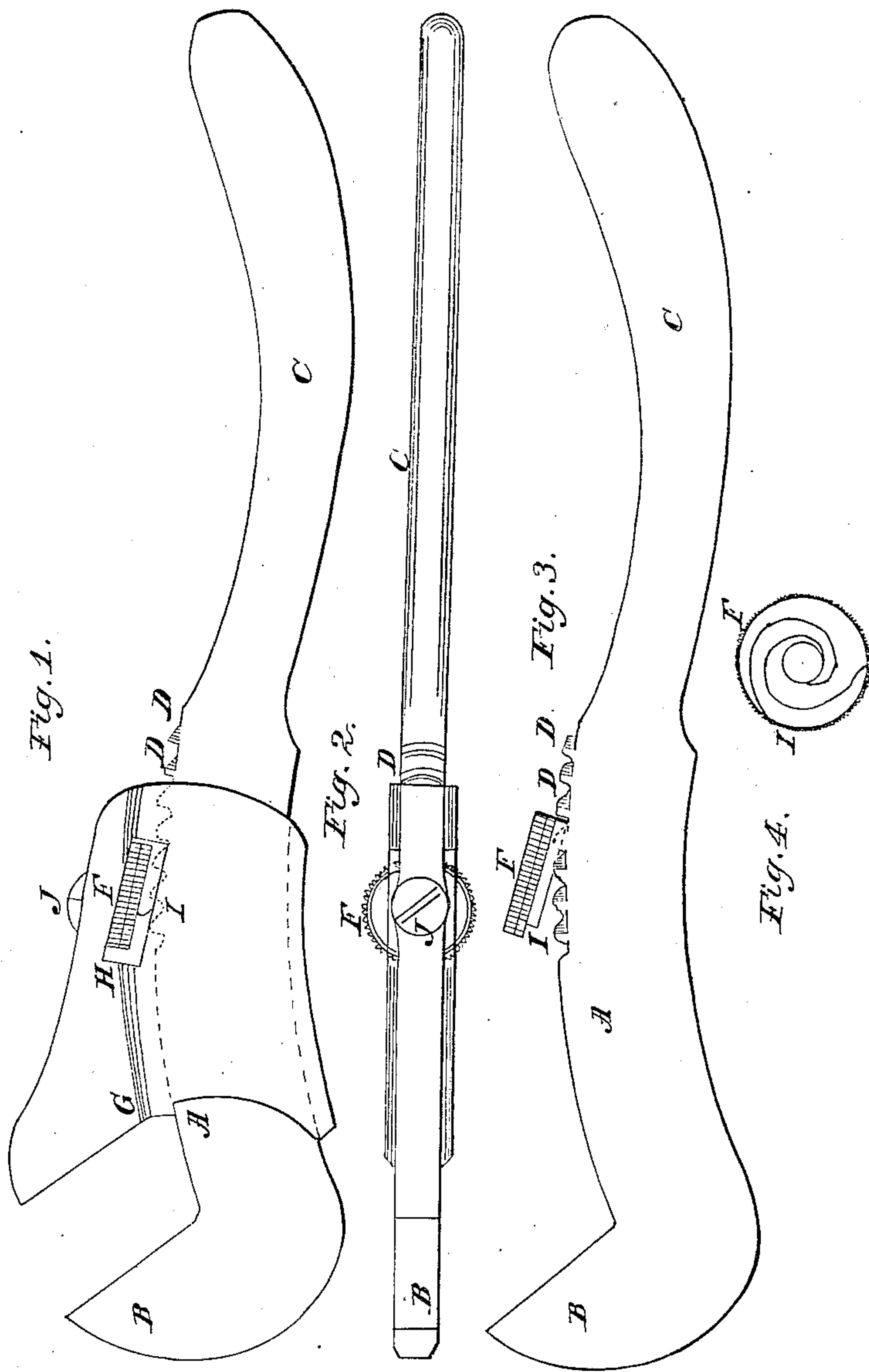


*G. B. Phillips,
Wrench.*

N^o 28,300.

Patented May 15, 1860.



Witnesses:

*Charles C. Lewis
J. E. Dennis*

Inventor:

*George B. Phillips
By his Atty J. E. Dennis*

UNITED STATES PATENT OFFICE.

GEORGE B. PHILLIPS, OF NEWARK, NEW JERSEY.

WRENCH.

Specification of Letters Patent No. 28,300, dated May 15, 1860.

To all whom it may concern:

Be it known that I, GEORGE B. PHILLIPS, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improved Slide-Wrench; and I do hereby declare that the same is described and presented in the following specification and drawings.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation referring to the drawings in which the same letters indicate like parts in each of the figures.

Figure 1, is a plan of one side of the wrench. Fig. 2, is a plan of one edge. Fig. 3, is a side view of the bar without the sliding jaw; Fig. 4, the under side of the scroll nut.

The nature of my invention consists in curving the main bar of the wrench on which the sliding jaw traverses, and making a rack or segment of teeth on one edge, for the scroll of a scroll nut to work in, and to traverse and hold the sliding jaw as may be desired.

In the accompanying drawing A, is the curved part of the main bar of the wrench, bent around at one end to form the jaw B, and the other end is extended to form the handle C, which may be made in the form shown, or in such other form as will answer the purpose. On the curved part A, of the bar, I make some teeth as shown at D, D, which teeth are curved as shown in Fig. 2, so that the scroll, of the scroll nut F, will work freely between the teeth to traverse the sliding jaw G, which sliding jaw may be made in the form shown in the drawing or in such other form as will answer the purpose intended; but I have found the form shown in the drawings to answer a good purpose; it has a slot through it lengthwise, as shown by dotted lines in Fig. 1, which is fitted to traverse on the

curved part A, of the bar. And it also has a slot H, crosswise through the rear end of the sliding jaw for the scroll nut F, to turn in which scroll nut is made in the form shown in the drawings with a scroll I, on one side fitted to work between the teeth D, D, of the main bar, to traverse the sliding jaw as the scroll nut F, is turned, for that purpose. The edge of the scroll nut F, is roughened by milling or otherwise, so that it may be turned with facility with the thumb and fingers. This nut has a hole through its center with a screw thread in it for the end of the screw J, which passes through the side of the sliding jaw and screws into the nut F, to hold it in its place while it is turned; the screw J, being made to turn freely in the side of the jaw J, through which it passes before entering the nut. The scroll on the nut F, projects from a plane surface, and the nut is so arranged in the slot H, in the sliding jaw that the plane of the nut from which the scroll projects, is tangential to the curve of the bar A, so that only that portion of the scroll which is between the screw J, and handle C, works or passes between the teeth D, D, as that portion of the scroll which is on the opposite side of the screw from the handle, is entirely above the ends of the teeth D, D.

I believe I have described and represented my improved wrench, so as to enable any person skilled in the art to make and use it. I will now state what I desire to secure by Letters Patent, to wit:

I claim—

A curved bar provided with a rack of teeth, in combination with a scroll nut for traversing and holding the sliding jaw as described for the purpose specified.

GEORGE B. PHILLIPS.

Witnesses:

ELIAS W. COBB,
ASA S. COBB.