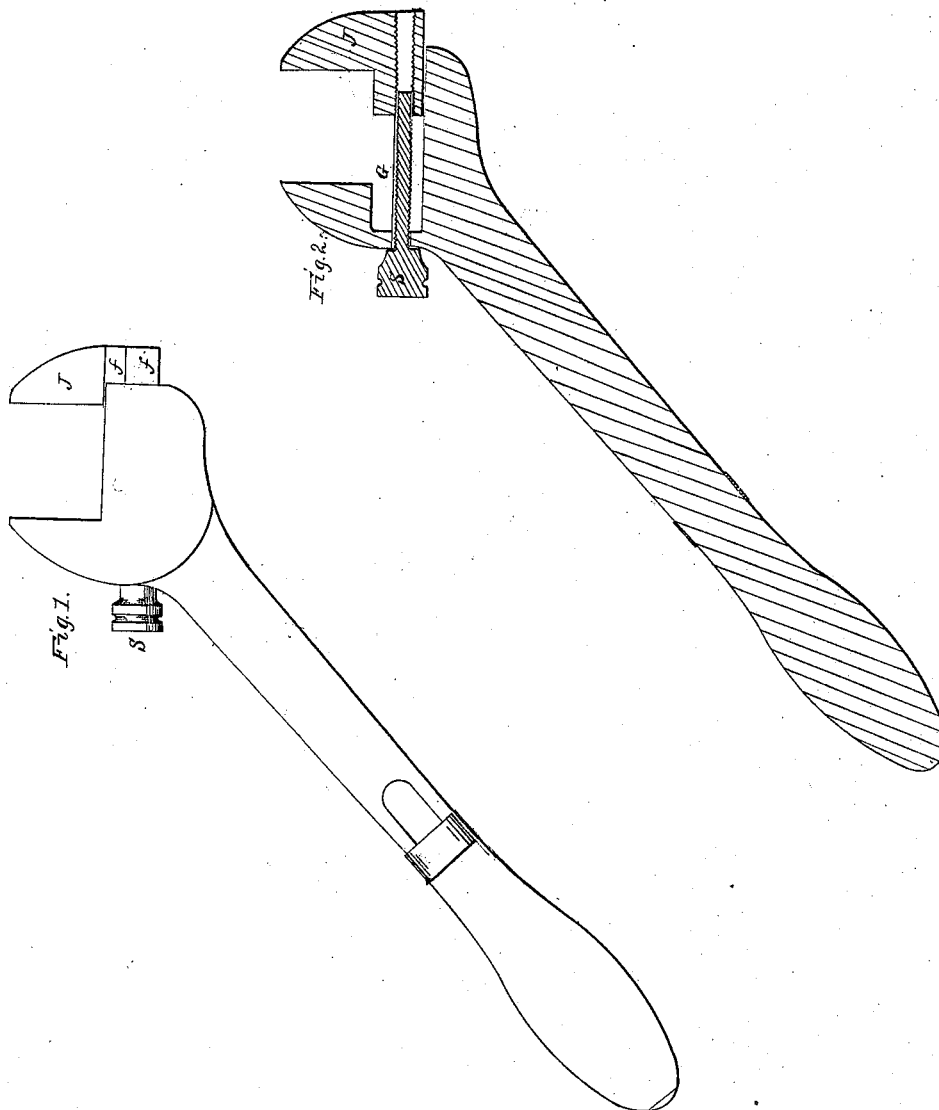


*H. W. Lore,*  
*Nut Wrench.*

*N<sup>o</sup> 53,016.*

*Patented Mar. 6, 1866.*



*Witnesses:*  
*J. A. Phillips*  
*Geo. C. Lambright*

*Inventor*  
*Horace W. Lore*  
*By Horace Lore*  
*att'y*

# UNITED STATES PATENT OFFICE.

HORACE W. LOVE, OF BROOKLYN, NEW YORK.

## IMPROVED SCREW-WRENCH.

Specification forming part of Letters Patent No. 53,016, dated March 6, 1866.

*To all whom it may concern:*

Be it known that I, HORACE W. LOVE, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Screw-Wrenches, which I design as an improvement on my screw-wrench for which Letters Patent were issued to me August 1, 1865; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation, and Fig. 2 is a longitudinal section, exhibiting the shank of the sliding jaw, the operating-screw, and the groove to which the shank of the jaw is fitted, and in which it is made to slide when the screw is operated.

In the accompanying drawings, J denotes the movable jaw, which is operated and adjusted by the screw S'. G exhibits the groove-opening in the edge or between the jaws of the wrench. *ff* show parts of the surfaces of the movable jaw, which, coming in contact with the corresponding surfaces of the groove in which the movable jaw slides, and to which it is made to fit, produces friction to diminish longitudinal strain on the screw, while the screw, being placed in the groove, is removed from all lateral strain when force is applied to operate the wrench.

The difference between my present invention

and that for which Letters Patent were granted me as aforesaid is, that in the former case I opened the groove in the side of the wrench, while in this latter improvement I open it in the edge; and the advantages of this edge-opening consist, mainly, but not entirely, in giving to the movable jaw a greater capacity or measure to expansion, thereby enabling me to do with one wrench what otherwise would require two of different sizes, and so in manufacturing them diminishing variety in sizes and reducing cost.

The groove, in my former invention, I make dovetail; but in this improvement I make it right-angular, the principle being the same in both cases. I do not mean to restrict my invention to any particular form of groove so long as I do not depart from its nature, as aforesaid; and I disclaim the form of a side protuberance if I should apply it to operate a nut within the rim of a wheel on the axle of a carriage.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improvement in constructing and operating my diagonal adjustable screw-wrench, as and for the purposes substantially described in the foregoing specification.

HORACE W. LOVE.

Witnesses:

EDW. H. CLOUGH,  
ROGER W. LOVE.