

W. Morehouse,

Wrench.

No 52,930.

Patented Feb. 27, 1866.

Fig. 1.



Fig. 2.

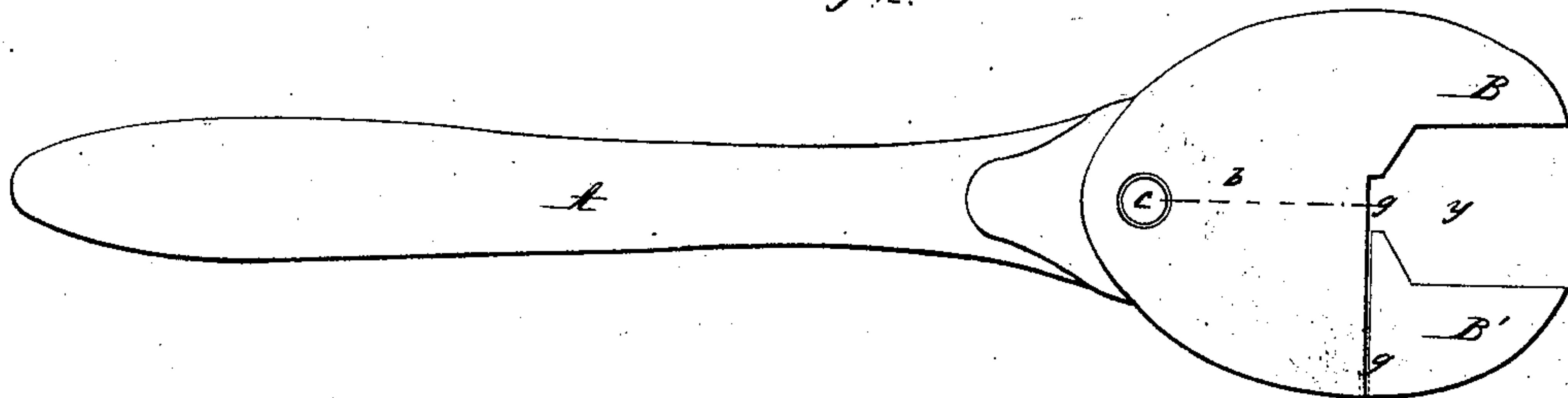


Fig. 3.

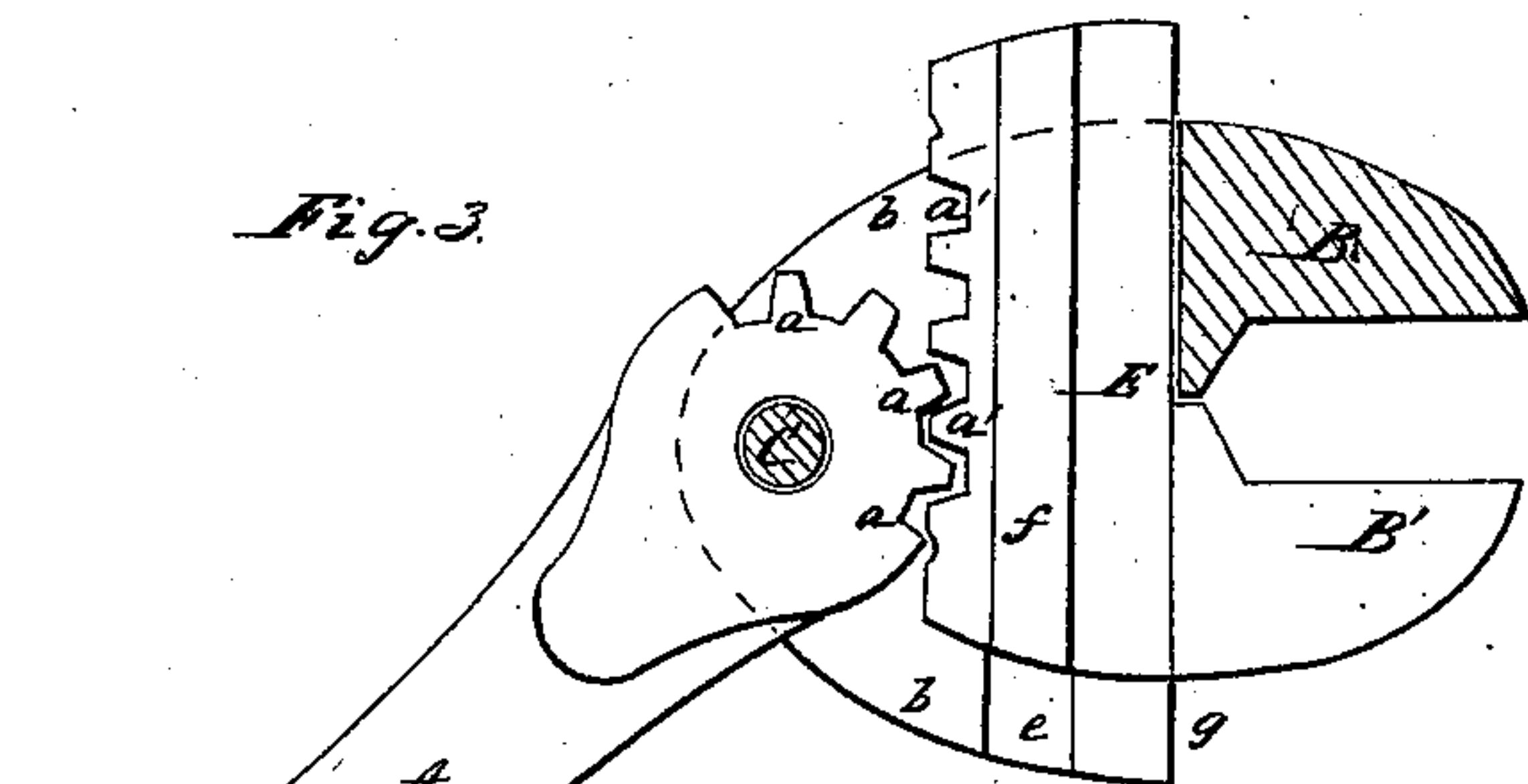
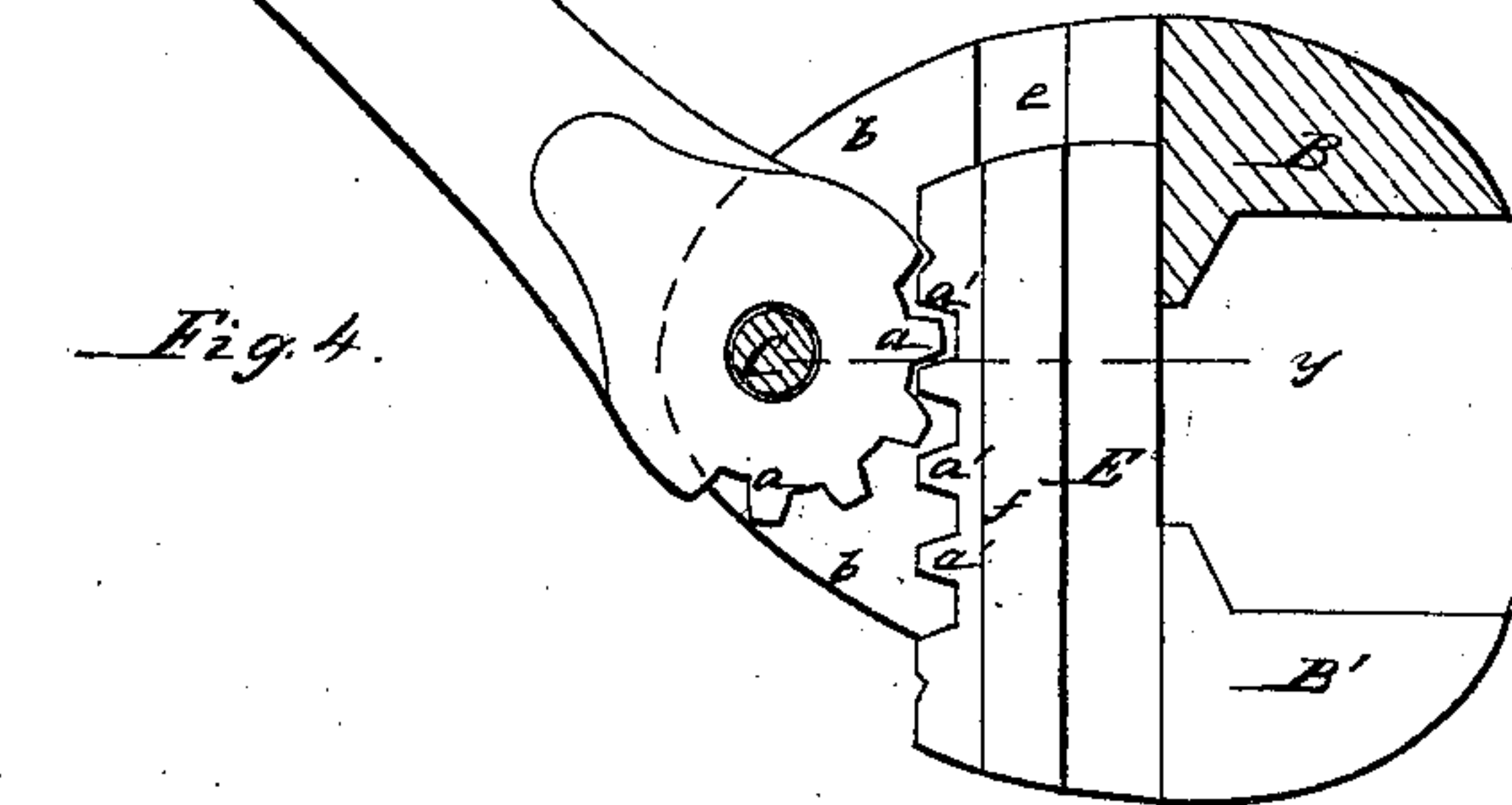


Fig. 4.



Inventor:

Wm Morehouse
by his Atty

Man, Smith & Co

UNITED STATES PATENT OFFICE.

WILLIAM MOREHOUSE, OF BUFFALO, NEW YORK, ASSIGNOR TO HIMSELF
AND J. FRASER, OF SAME PLACE.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 52,930, dated February 27, 1866.

To all whom it may concern:

Be it known that I, WILLIAM MOREHOUSE, of Buffalo, in the county of Erie and State of New York, have invented a new and Improved Wrench; 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 an edge view of the wrench with a portion of its handle broken off. Fig. 2 is a view of one side of the wrench complete. Figs. 3 and 4 are sectional views, showing the jaws in their two extreme positions.

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

The nature of my invention consists in pivoting one of the jaws of a wrench to the handle thereof and connecting the other jaw to the handle by means of a rack and segment, in such manner that when one of said jaws is fixed upon an object and the handle moved as in the act of unscrewing a nut the other jaw will be moved up to and caused to gripe the object with a force proportionate to that exerted to move it, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents the handle of the wrench, which is flattened at one end and rounded in the form of a segment, with teeth *a a*, which latter are made large and strong,

B represents one of the jaws of the wrench, which has two side plates, *b b*, formed on it, between which latter the segment *a a* of the handle A is fitted to move freely about a strong pivot, *c*, which passes transversely through said plates and segment. On the inside face of each plate *b b*, and directly opposite each other, I form slots *e e*, which are parallel to the upper edges, *g g*, of the jaw-plates, as shown in Figs. 3 and 4. Into the slots *e e* tenons *f f*, which are formed on a sliding block, E, are fitted, for the purpose of guiding and keeping this block in its proper

place. On one end of the block E a jaw, B', is formed, as shown in Figs. 3 and 4, the sides of which project from the block so as to form shoulders, which rest upon and are guided by the straight edges *g g* of the jaw-plates *b b*. The lower edge of the sliding block E has a number of teeth, *a' a'*, formed on it, corresponding in size and strength with those of the segment on the handle A, and when this handle is pivoted to the plates *b b*, the sliding jaw B' having previously been inserted into its place, the teeth on the segment and slide will connect these parts together in such manner that when the handle A is moved the jaw B' will be caused to approach or recede from the jaw B.

By this arrangement and construction of wrench the jaws are self-adjustable and adapt themselves to a nut or other object by a movement of the handle of the wrench in the direction which it is desired to turn such object. Then by reversing the movement of the handle the jaws will be separated.

By my invention I connect the handle of the wrench directly to the sliding jaw at a point which is directly in a line with the pivot, extending to the point *y*. (Indicated in red lines, Figs. 2 and 4.) Hence I dispense with link-connections, eccentrics, and other contrivances, which would form intermediate connections, and increase the number of parts of the wrench, besides diminishing the strength of the wrench.

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

1. Operating the movable jaw of a wrench directly by the handle, substantially as described.

2. The combination of the handle A with a segment formed on it, pivoted jaw B, and sliding jaw B', having teeth formed on it, which engage with the pivoted end of the handle, substantially as described.

WM. MOREHOUSE.

Witnesses:

W. H. SHERMAN,
R. H. DANFORTH.