E. A. Smead,

Wrench.

No. 76,536. Patented Apr. 7, 1868.

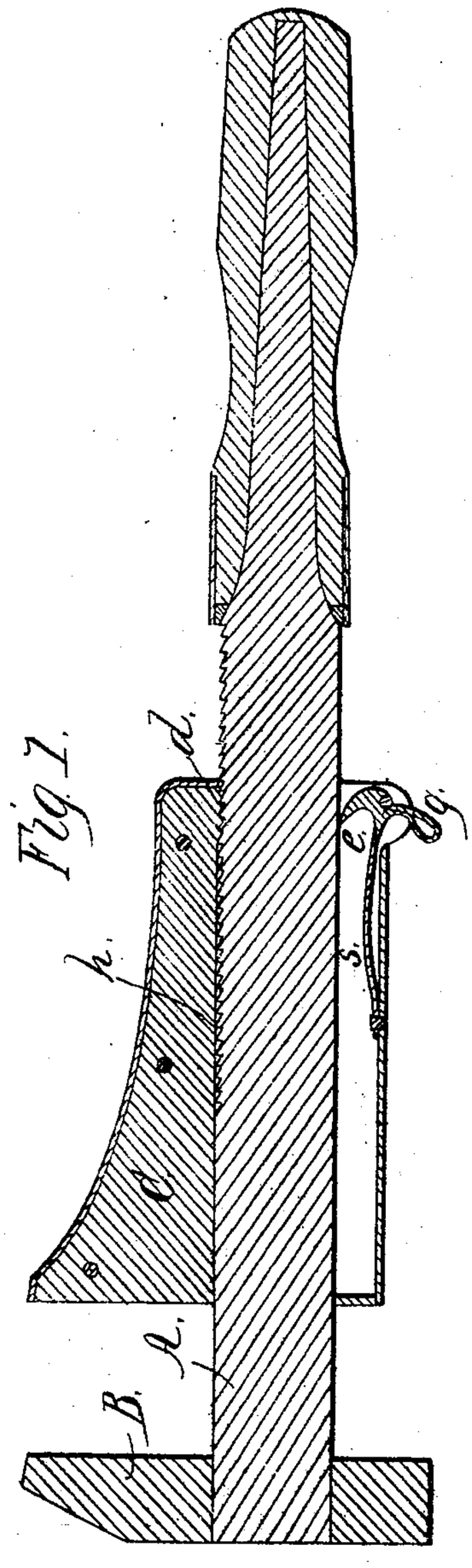

Fig. 1.

Witnesses;
Jno. A. Ellis.
S. W. Miller

Inventor;
E. A. Smead
per
T. H. Aldyman
atty.

United States Patent Office.

E. A. SMEAD, OF TIOGA, PENNSYLVANIA.

Letters Patent No. 76,536, *dated April* 7, 1868.

IMPROVEMENT IN WRENCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. A. SMEAD, of Tioga, in the county of Tioga, and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a longitudinal section of my wrench.

The nature of my invention consists in the employment of a cam to hold the movable jaw in position, substantially in the manner hereinafter set forth.

To enable others skilled in the art to avail themselves of its benefits, I will now describe its construction and operation.

A represents the handle, and B the stationary jaw of my wrench. Nearly two-thirds of the handle A are rectangular, and serrated on its upper side, as seen in fig. 1. C represents the movable jaw, which is made to slide on the handle, and furnished at its outer end, where it embraces the handle, with the teeth *d*, which are designed to fit in the serrations *h* on handle A. On the lower side of handle, and opposite to the teeth *d*, is pivoted the cam *e*; said cam is furnished with spring *s*, which rests at its end on the inner surface of jaw C, as seen in the drawing. Attached to cam *e* is the thumb-piece *g*, by which the cam is operated.

When it is desired to adjust the jaw C to a nut of any given size, the operator will grasp the round part of the handle with the fore-fingers of his right hand, and press down the thumb-piece *g* until it rests on the jaw C, and this will disengage the teeth *d* from between the serrations *h* on handle A. Now, with the right hand slide the jaw C to the desired place, and by raising the thumb from *g*, the teeth *d* will enter between the serrations *h*, and the jaw C remain firmly fixed in its position.

I am aware that springs have been employed to hold the jaw and prevent it from slipping; but as a spring is flexible, it is liable to give way when the jaw is under great pressure. But in my wrench it will be seen that when the teeth *d* are in the serrations *h*, it is impossible for the movable jaw C to move from its position until the cam is operated for that purpose.

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

The cam *e*, for holding the sliding jaw C, as herein specified.

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

E. A. SMEAD.

Witnesses:

P. R. ERICHSER,

J. W. MISTER.