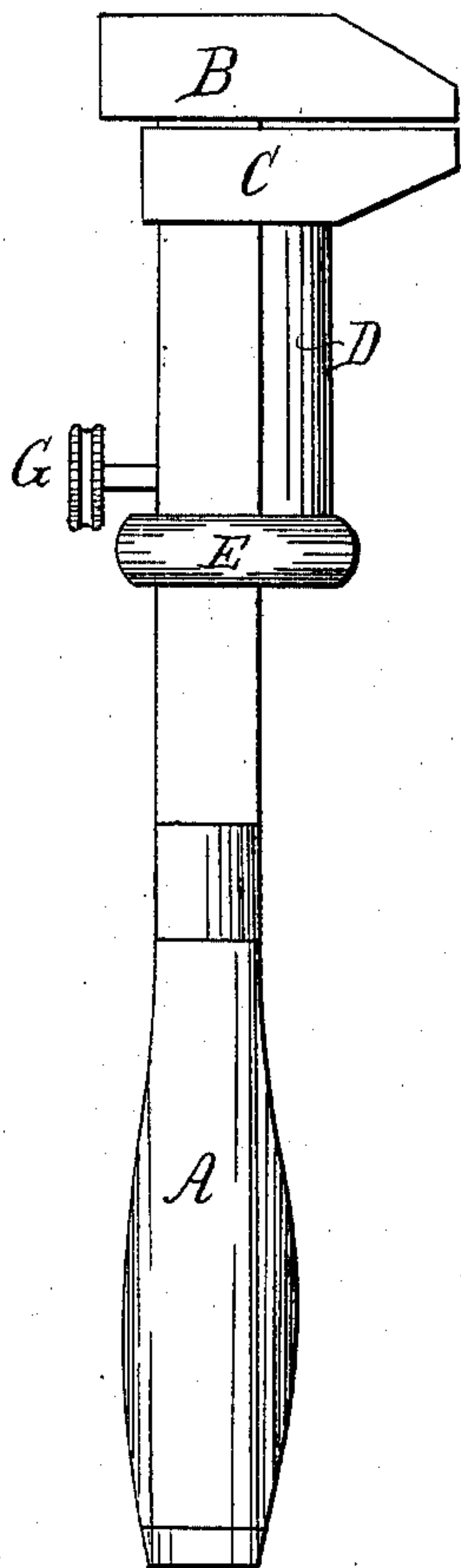


*T Earle,  
Wrench.*

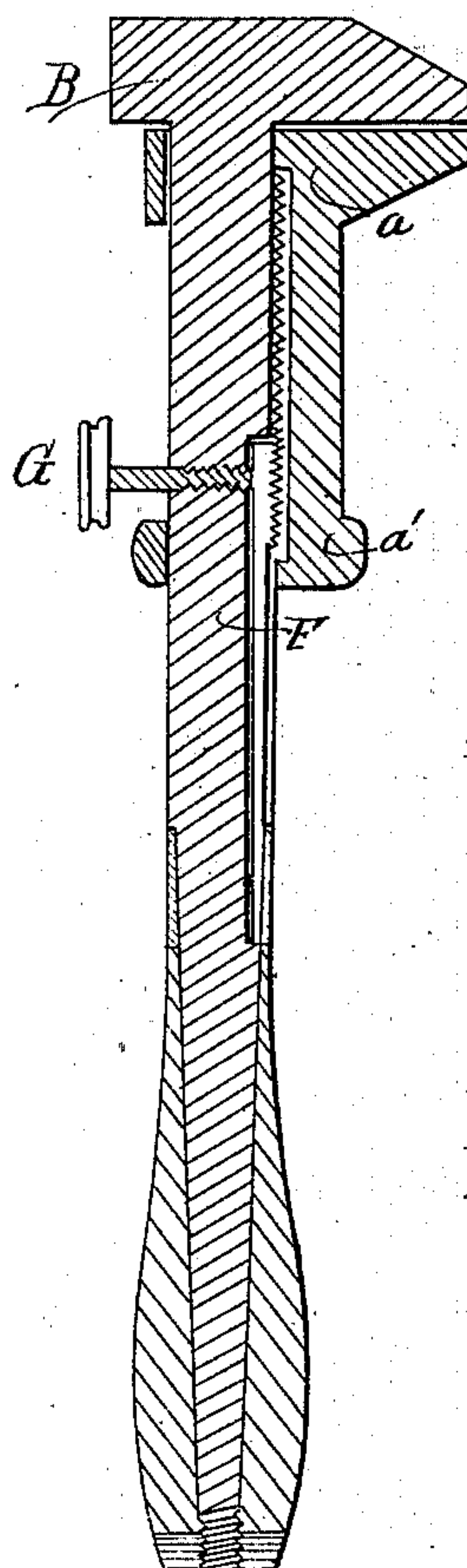
*N<sup>o</sup> 61,929.*

*Patented Feb. 12, 1867.*

*Fig. 1.*



*Fig. 2.*



*Witnesses;  
H. B. Vincent  
J. D. Thurston*

*Inventor;  
Timothy Earle*

# United States Patent Office.

TIMOTHY EARLE, OF VALLEY FALLS, SMITHFIELD, RHODE ISLAND.

*Letters Patent No. 61,929, dated February 12, 1867.*

## 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, TIMOTHY EARLE, of Valley Falls, Smithfield, in the county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Wrenches; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a side elevation in perspective.

Figure 2 is a sectional elevation.

A wrench of the general character shown in the drawings, and commonly called a "monkey wrench," consists of two jaws, one of which is stationary, and the other of which is movable, so that the opening between the jaws can be adjusted to bolt-heads of different sizes. This movable jaw has heretofore been usually provided with a nut, and combined with a screw variously arranged, so that by turning the screw the jaw can be adjusted at any position within the limits of the length of the screw. In the practical use of this tool, changes in the adjustment of the sliding jaw are constantly required, and it is desirable to have a means for conveniently and rapidly making such adjustment.

In the present invention, A is the handle of the wrench, B the fixed jaw, and C the sliding one, which latter has a shank, D, and embracing-collar, E, as hitherto made. The inner face of the shank D is cut with fine bevelled ratchet teeth from *a* to *a'*. F is a piece of spring steel, provided with similar ratchet teeth upon its outward face. This piece of steel is riveted, at its lower extremity, to the shank of the fixed jaw B, in which is cut a recess, as shown, for its accommodation. The tendency of F is to spring outward at the upper end, and exert a slight pressure upon the ratchet face of the shank D, against which some part of its surface always bears. G is a thumb-screw, by turning which the point can be made to bear against the back of the spring piece F, and, forcing its upper end outward, cause the two sets of ratchet teeth to become firmly locked, to hold the sliding jaw in a fixed place. It is obvious that, so long as no pressure is applied to the back of the spring piece F, the sliding jaw of the wrench can be freely moved by the fingers to the position desired, when, upon giving a few turns to the thumb-screw, the two sets of teeth will be interlocked, and all further movement of the jaw prevented. Instead of the ratchet faces described, roughened surfaces may be employed, but not with the same certainty, in large tools of this character, that the friction would be sufficient to withstand the powerful lateral strain to which the sliding jaw is often subjected.

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

The invention in wrenches, described, consisting of a movable jaw, C, provided with a serrated or equivalent roughened surface, *a a'*, in combination with a spring clamp, F, or its equivalent, substantially as set forth.

TIMOTHY EARLE.

Witnesses:

W. B. VINCENT,

J. D. THURSTON.