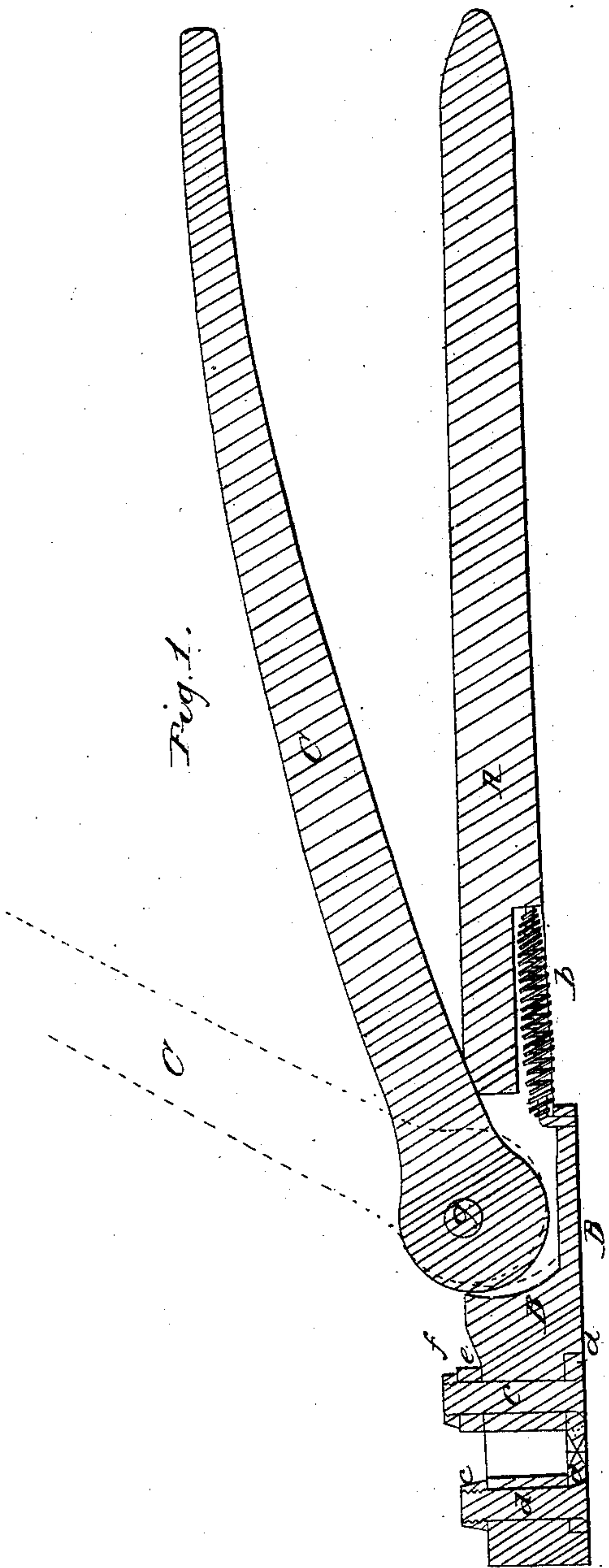


*W. Hannah,*  
*Bolt Trimmer.*

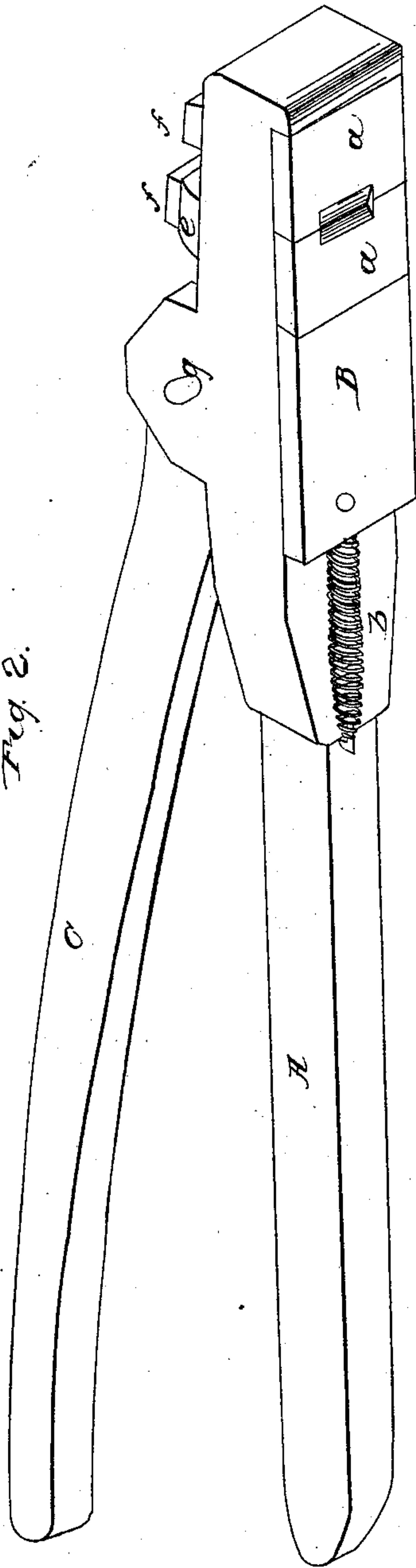
*N<sup>o</sup> 16,301.*

*Patented Dec. 23, 1856.*

*Fig. 1.*



*Fig. 2.*



# UNITED STATES PATENT OFFICE.

W. HANNAH, OF MIDDLEFIELD, NEW YORK, ASSIGNOR TO L. H. BOWEN AND W. HANNAH.

## MACHINE FOR TRIMMING BOLTS.

Specification of Letters Patent No. 16,301, dated December 23, 1856.

*To all whom it may concern:*

Be it known that I, WILLIAM HANNAH, of the town of Middlefield, in the county of Otsego and State of New York, have invented a new and Improved Portable Machine for Cutting Bolts and Screws; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to letters of reference marked thereon.

Figure 1 is a longitudinal section. Fig. 2 is a diametrical view.

The nature of my invention consists in forming a portable machine for turning bolts and screws by means of a horizontal lever combined with an eccentric lever and a sliding and a stationary die, operating as a sliding cutter, hereafter described.

In Fig. 1 A is the horizontal lever with slot in which the sliding face plate operates, B the sliding face plate, C, the eccentric lever. *a, a* the dies, *b* the spiral spring, *c* the screw bolt for fastening the die *a* to the sliding face-plate. *d* the screw bolt for fastening the stationary die to the horizontal lever, *e* the slide through which the screwbolt passes and which slides on the horizontal lever of the screw nuts on the ends of the screw bolts, *g* the fulcrum of the eccentric lever. The red lines show the operation of lever *c*.

In the construction of my invention, I may use either cast or wrought iron and steel. If I use cast iron which I propose doing as it is cheaper, I cast the levers A, and, C out of cast iron. The eccentric cam or sliding die plate is also made of cast iron to which I attach the sliding die by means of screwbolt *c*. This die is beveled to an edge on both sides, which is the shape of both dies, or they may be made bevel on the upper side and even on the lower side for the purpose of cutting bolts or screws even with the surface of the timber or metal through which they pass. As at present

constructed they allow for riveting if desired after they are cut off.

In the operation of my invention I will state that it is intended for a portable trimmer for bolts and screws. The curve or circle of the eccentric lever and the corresponding circle in the cam or sliding face plate is a perfect circle but the fulcrum of the lever is not set in the center but a little out of center thus forming an eccentric lever of increasing power. The stationary and sliding dies have shoulders on each side of the cutting edges of the dies which serve as guards to them, for preventing the edges from coming in contact with each other. In using my instrument for cutting bolts or screws in places where it is at present necessary to use the chisel the eccentric lever is raised sufficient to allow the cutting edge of the sliding die to be used and to open the space sufficient to allow the article to be cut to pass through, thereby holding firmly the horizontal lever A, and pressing down the eccentric lever C, the sliding-face plate with the sliding die is pushed forward cutting off the screw, or bolt, as desired, the shoulders on the face plate stop the device. The spiral spring then assists in drawing back the face plate, and die. By this invention I am able to economize time, as it is a slow process to cut screws or bolts by the chisel. Also it is a great convenience in the manner of doing the work. My invention is, an economizer of both time and labor.

Having described my invention what I claim is—

The arrangement of the sliding and stationary dies *a, a*, as described, and operating with the sliding face plate B, in connection with the horizontal lever A, and eccentric lever C, for the purpose set forth, and described herein.

WILLIAM HANNAH.

Witnesses:

T. G. CLAYTON,  
S. M. POOL.