H. Barth,

Shearing Metal

No. 50,325. Patented Oct. 10, 1865.

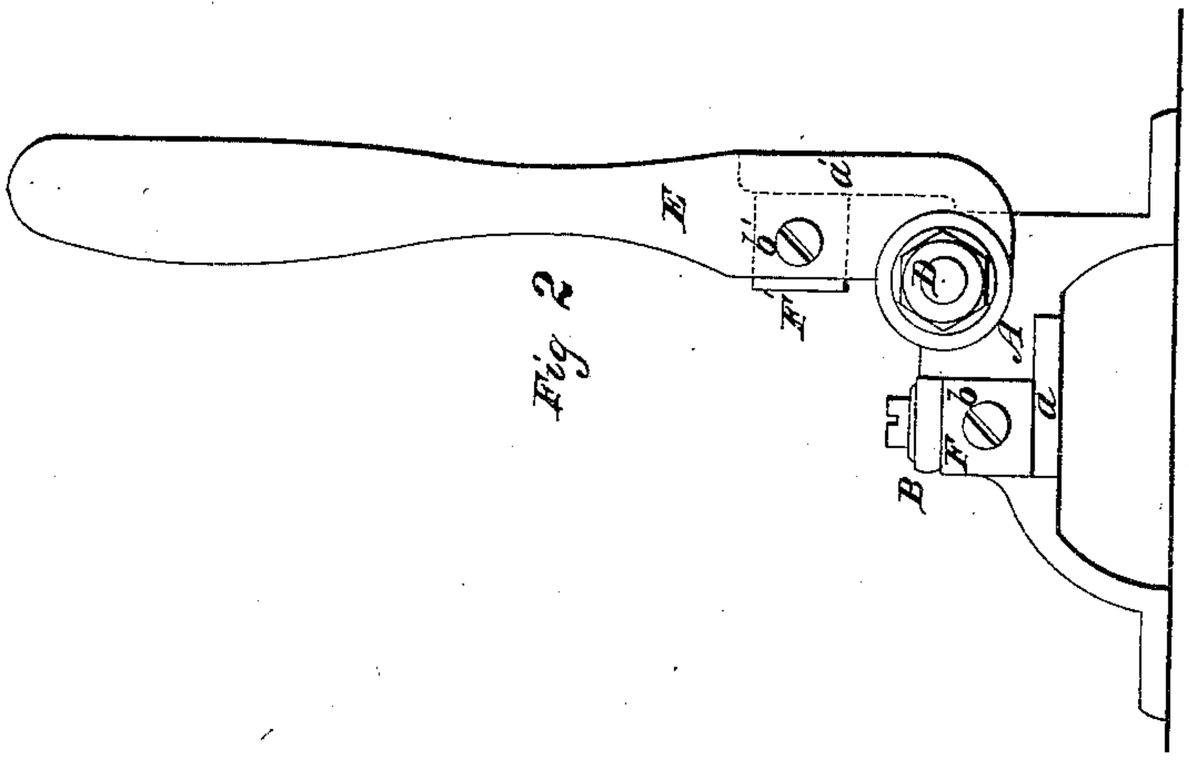


Fig 2

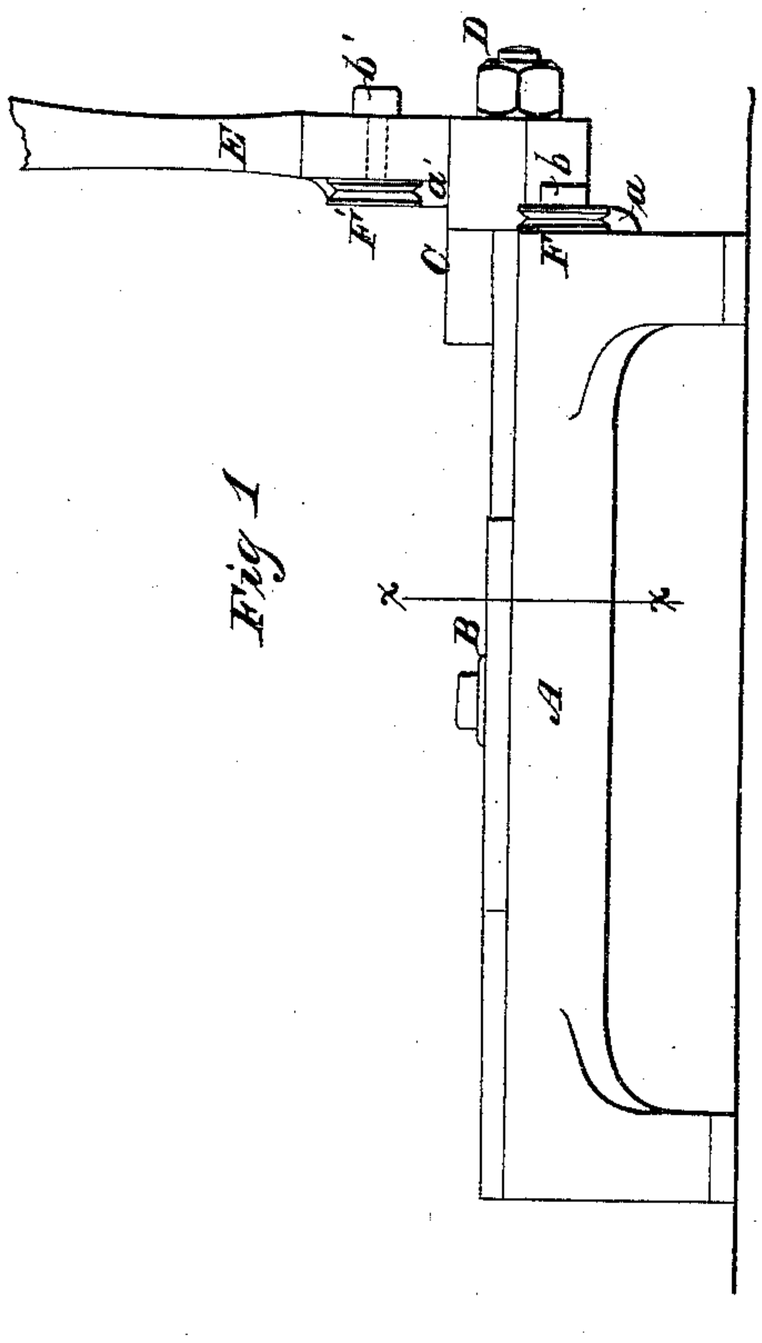


Fig 1

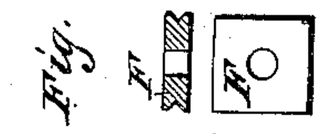
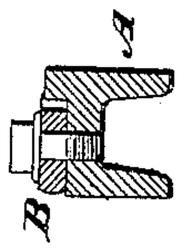


Fig. 4

Fig 3.



WITNESSES:

Wm. Brewer

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INVENTOR:

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Attys

UNITED STATES PATENT OFFICE.

HENRY BARTH, OF CINCINNATI, OHIO.

IMPROVEMENT IN SHEARS FOR CUTTING METAL.

Specification forming part of Letters Patent No. **50,325**, dated October 10, 1865.

To all whom it may concern:

Be it known that I, HENRY BARTH, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Shears for Metal, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of this invention. Fig. 2 is an end elevation of the same. Fig. 3 is a transverse vertical section of the same, the line *x x*, Fig. 1, indicating the plane of section. Fig. 4 is a transverse section, and Fig. 5 a face view, of the cutter detached.

Similar letters of reference indicate corresponding parts.

This invention consists in the employment or use, in shears for cutting metal or other materials, of many-sided cutters, the edges of which are made in such a manner that each edge presents two cutting-edges, and, if one of the cutting-edges has become dull, the cutter can be turned or reversed and a new cutting-edge can be brought into play without loss of time.

The shears which I have represented in the drawings, are of that class which are generally used for cutting lead or other metal; but my invention is applicable to shears for other materials.

A represents the bed which supports the end of the material to be cut, and which is provided with an adjustable gage, B, to determine the length of the pieces to be cut off. From one end of said bed projects a socket, C, which forms the bearing for the bolt D, and this bolt forms the fulcrum of the hand-lever E.

F F′ are the cutters, one of which is secured to the end of the bed A, and the other to the inner surface of the hand-lever E, as clearly shown in Figs. 1 and 2 of the drawings. The cutter F is supported by a lip, *a*, projecting from the end of the bed, and it is held in place by a screw, *b*, and in the same manner the cutter F bears against a lip, *a′*, at the upper edge of the hand-lever, and it is held in place by a screw, *b*. Said cutters are made of four-sided pieces of steel or other suitable material, though it must be remarked that they can be made with any desired number of sides. Both sides of the cutters are ground even or rather hollow, and the edges are hollowed out, as clearly shown in Figs. 1 and 4 of the drawings. Thus prepared each edge forms two distinct cutting-edges, one on either side, and a four-sided cutter, for instance, has eight cutting-edges, which can be brought into play one after the other. If one cutting-edge is dull or worn out, the central screw is taken out and the cutter turned so as to bring a new cutting-edge into play, and when all the cutting-edges on one side of the cutter have been worn out the cutter is turned so that the side previously in front comes inside, and vice versa, and the cutting-edges on the other side of the cutter are brought into action. By this arrangement the cutters can be used for a long time before it becomes necessary to sharpen them, and much time and labor are saved.

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

The combination of the many-sided cutters F F′ with the stationary and movable jaws, substantially as and for the purpose described.

HENRY BARTH.

Witnesses:

WM. P. HUNT,

CHARLES WELLS.