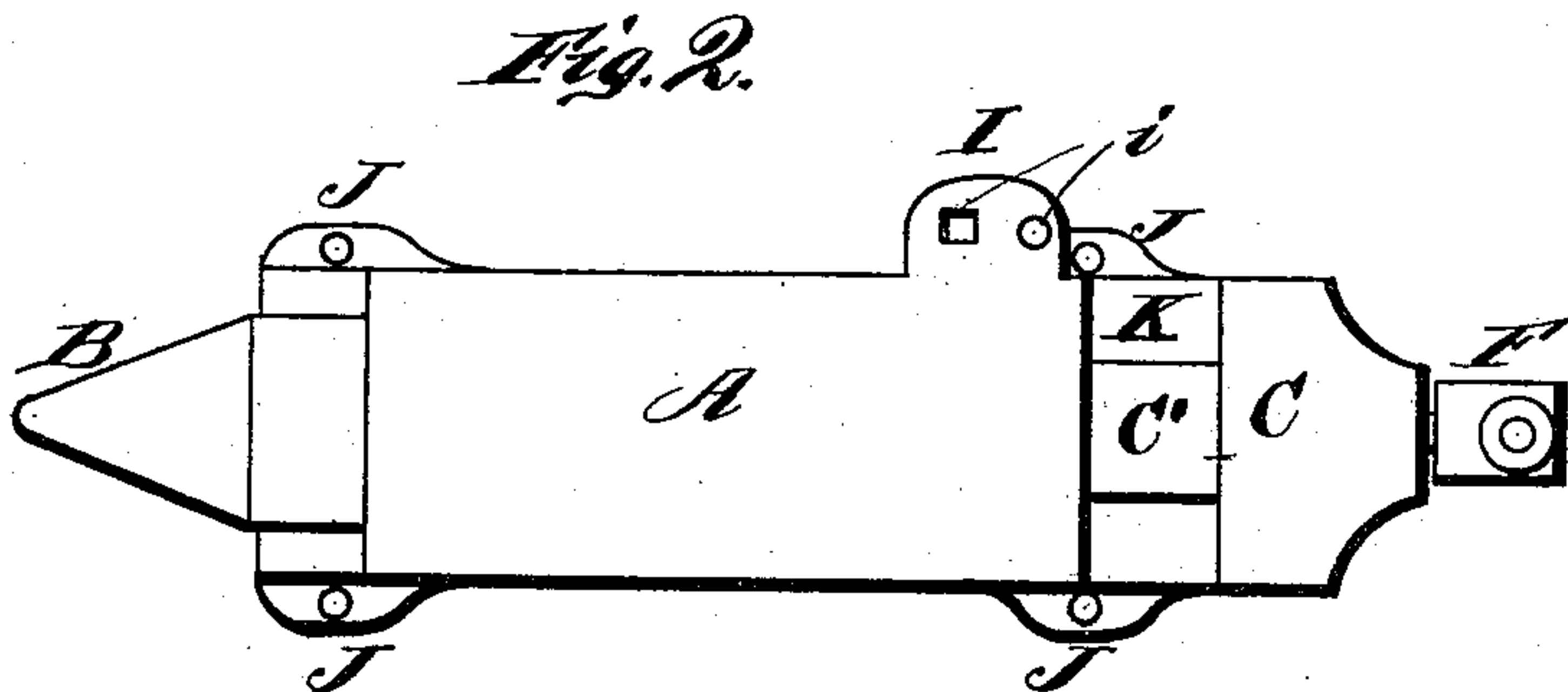
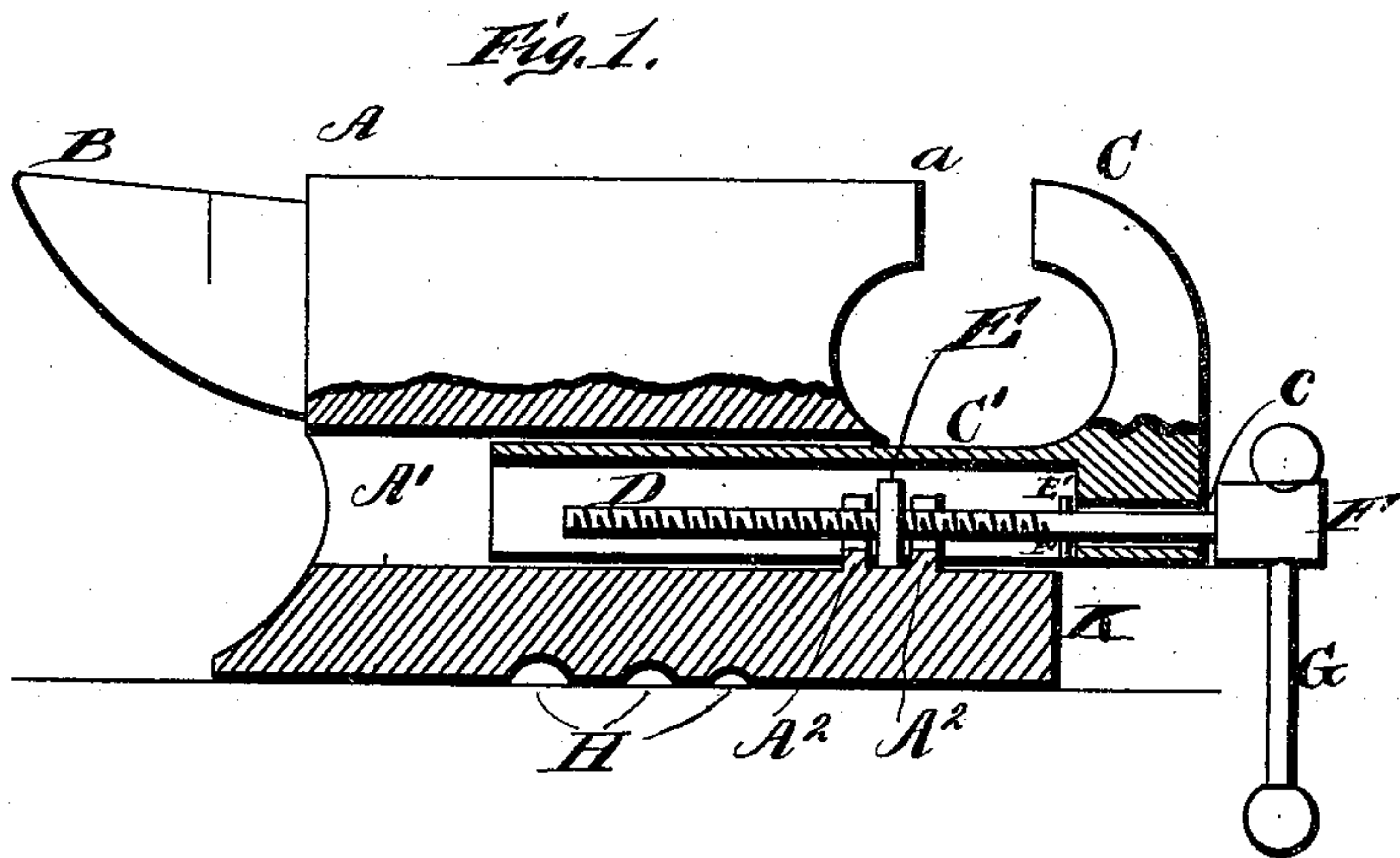


P. B. HILLYER.  
COMBINED ANVIL AND VISE.

No. 191,427.

Patented May 29, 1877.



WITNESSES

*Robert Everett*  
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# UNITED STATES PATENT OFFICE

PHILETUS B. HILLYER, OF ROCHESTER, MINNESOTA.

## IMPROVEMENT IN COMBINED ANVIL AND VISE.

Specification forming part of Letters Patent No. 191,427, dated May 29, 1877; application filed February 24, 1877.

*To all whom it may concern:*

Be it known that I, PHILETUS B. HILLYER, of Rochester, in the county of Olmsted and State of Minnesota, have invented a new and valuable Improvement in Combined Anvil and Vise; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation, part sectional, of my combined anvil and vise; and Fig. 2 is a plan view of the same.

This invention relates to combined anvils and vises; and the nature of said invention consists, mainly, in the combination of the parts, as will be hereinafter more fully set forth, and pointed out in the claim.

In the accompanying drawings, A designates an anvil having a horn, B, no part of which horn is allowed to extend above the plane of the flat top or face of said anvil. The end *a* of said anvil opposite to said horn forms the fixed jaw of a vise, and is on the same plane of the face of the anvil, the movable jaw C of which is supported by a horizontal slotted tubular arm or guide-casing, C', which slides in a longitudinal passage, A<sup>1</sup>, made through the body or web of said anvil. This slotted casing C' passes over and around two bearings, A<sup>2</sup>, and a nut, E, as shown in Fig. 1 of the drawings. Said jaw C is moved toward or from said fixed jaw by means of a horizontal screw-threaded rod, D, which extends through a small passage, *c*, in said jaw C, near the base of the latter, and is supported by bearings A<sup>2</sup> A<sup>2</sup>, formed in one piece with the anvil, or rigidly attached thereto on the bottom of passage A<sup>1</sup>. Between said bearings sets a nut, E, which engages with said screw-threaded rod D. The latter is provided with shoulders or stops E' inside of said casing, which bear against the inner side of mov-

able jaw C when rod D is turned in one direction, and with an enlargement, F, on the outer end of said rod, which enlargement bears against the outside of said movable jaw, when the said adjusting-rod D is turned in the opposite direction. The rotation of said rod is effected by means of a handle or lever-bar, G, sliding through a hole in the outer end of head or enlargement F, in the usual manner. The jaw C does not extend above the face of said anvil.

In the bottom of said anvil are formed transverse grooves H for use in swaging metal. When said anvil is inverted for use as a swage-block the tops of jaw C and of horn B afford a secure base for the same.

On the side of the anvil, at the top thereof, is formed a laterally-extending punch-block, I, perforated at *i*. On this the metal is laid while being punched by suitable mechanism.

By arranging the punch-block I on the side, as shown, it does not interfere with the face of the anvil or with the vise.

Said anvil is provided at the bottom with laterally-extending fastening plates or lugs J, whereby it may be secured to a supporting-block, pedestal, or flooring. The bottom of anvil A is extended at K below, so as to serve as a bearing or pedestal for jaw C, and prevent arm or guide-casing C' from being strained.

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

The anvil A, having the passage A<sup>1</sup>, bearings A<sup>2</sup>, and fixed jaw *a* in the plane of the face of the anvil, in combination with the movable jaw C, having the slotted casing C' and passage *c*', with the operating-screw D and nut E, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

PHILETUS B. HILLYER.

Witnesses:

SYLVESTER A. PHELPS,  
JAMES GEORGE.