

W. B. HICKMAN.
Device for Welding Plow-Irons.

No. 227,006.

Patented April 27, 1880.

Fig. 1

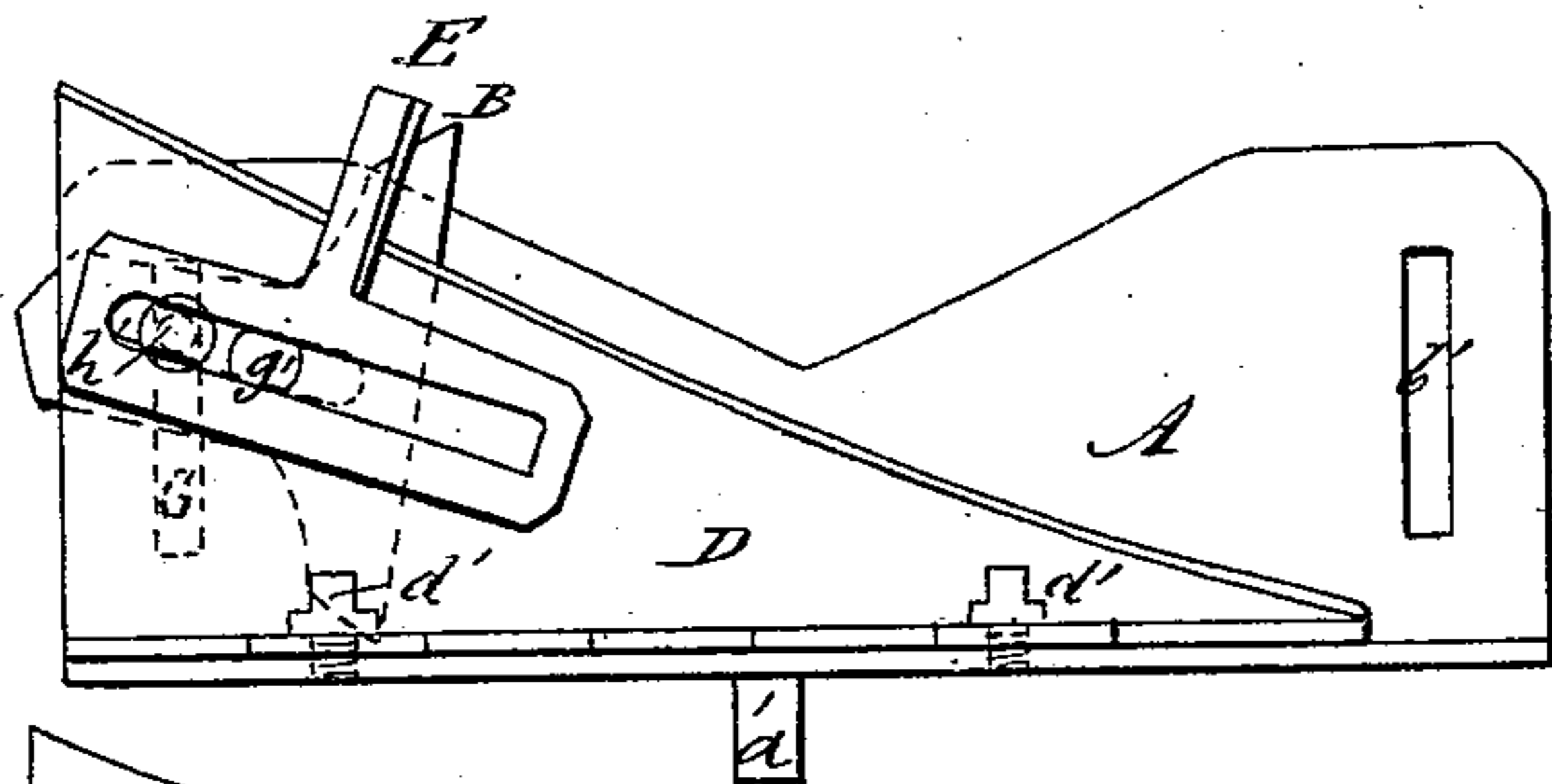


Fig. 5

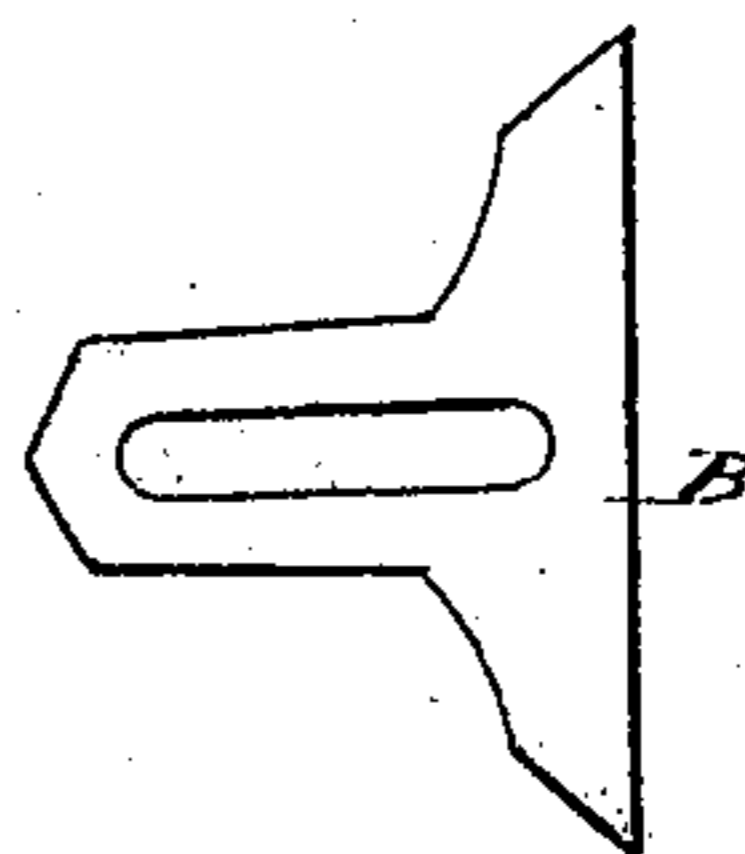


Fig. 6

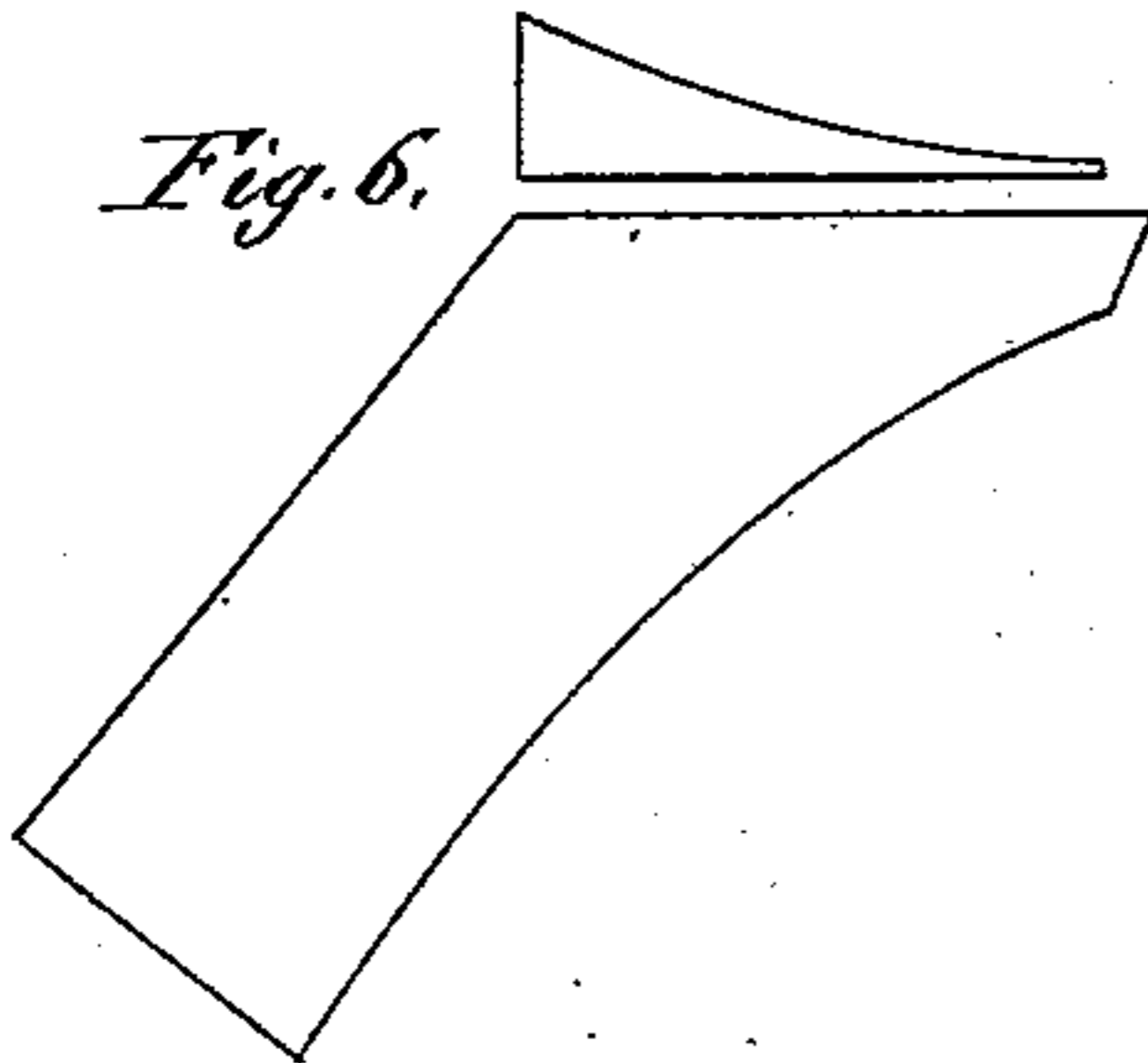


Fig. 2

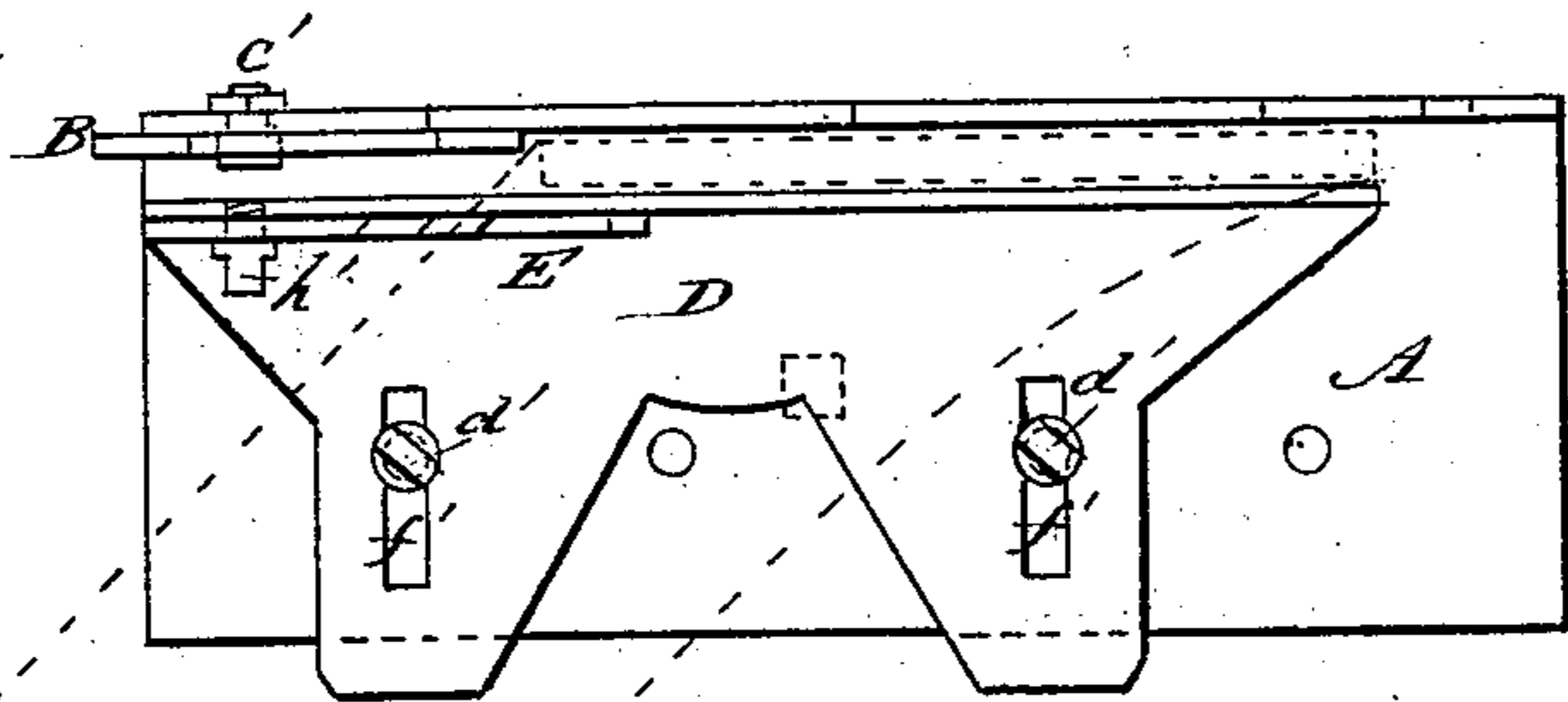
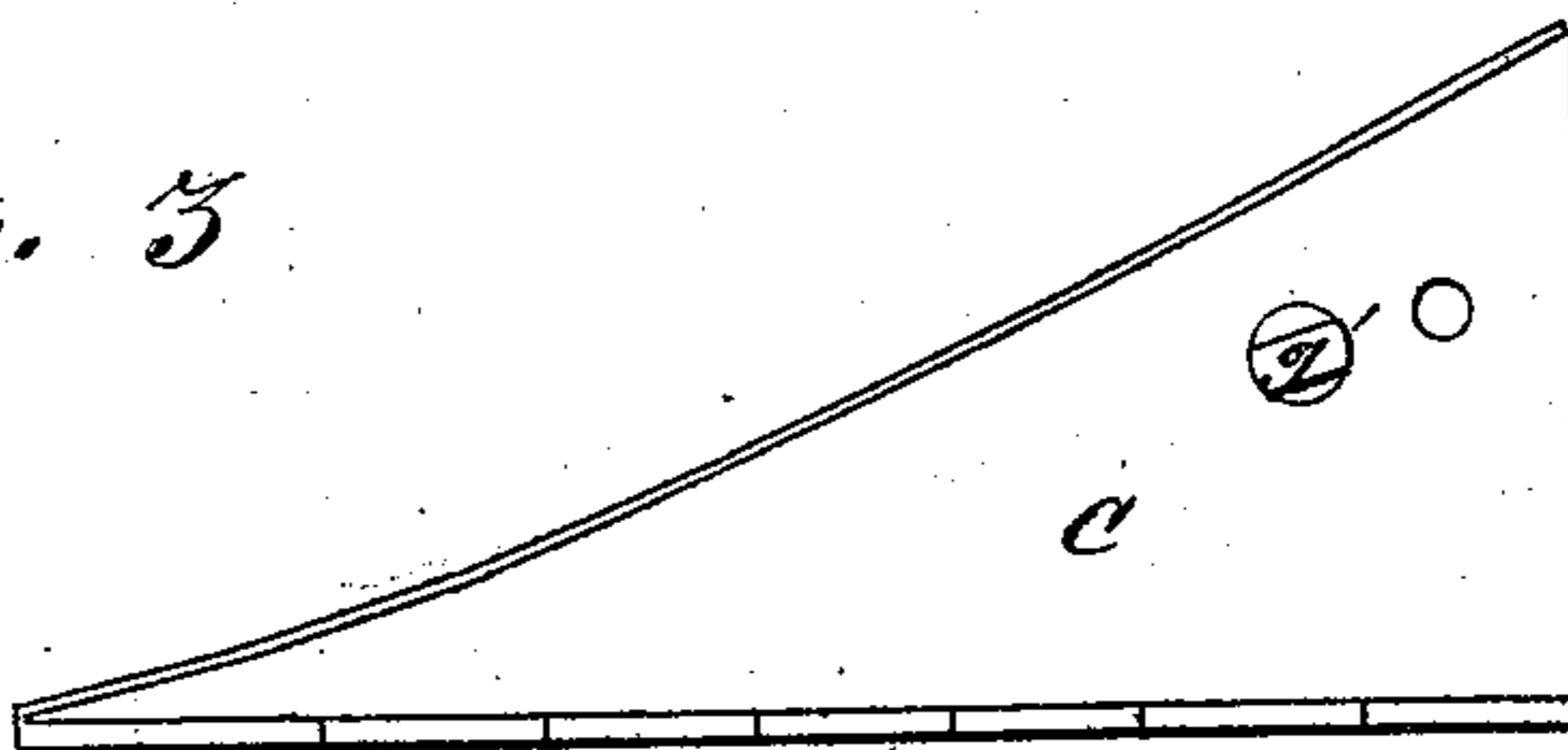
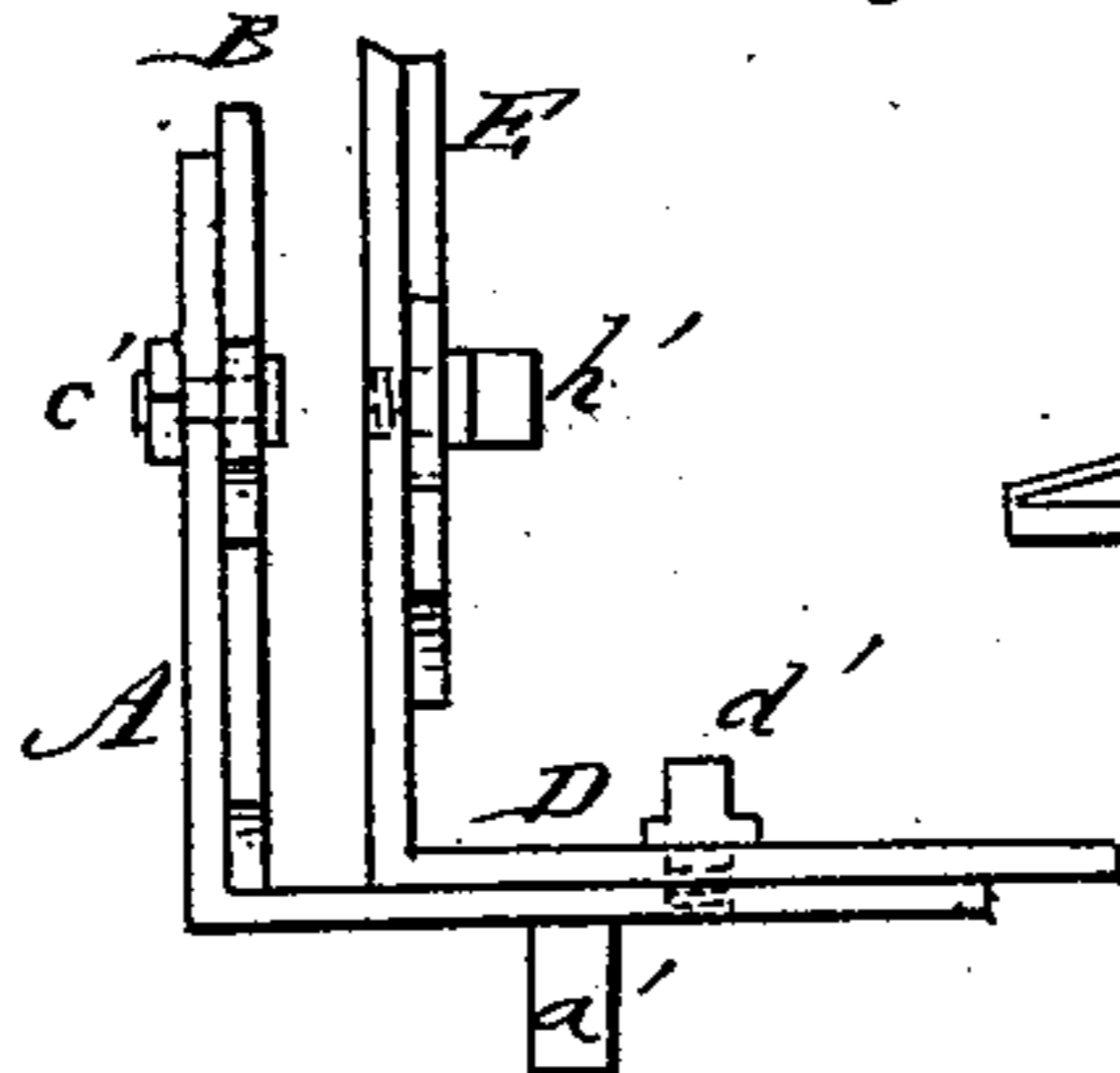


Fig. 4

Fig. 3



WITNESSES:

C. Xeroux
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INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM B. HICKMAN, OF STERLING, KANSAS, ASSIGNOR TO HIMSELF
AND WILLIAM PRICE, OF SAME PLACE.

DEVICE FOR WELDING PLOW-IRONS.

SPECIFICATION forming part of Letters Patent No. 227,006, dated April 27, 1880.

Application filed September 5, 1879.

To all whom it may concern :

Be it known that I, WILLIAM B. HICKMAN, of Sterling, in the county of Rice and State of Kansas, have invented a new and Improved Device for Welding Plow-Irons, of which the following is a specification.

Figure 1 is a front elevation of the swage. Fig. 2 is a plan of the same, showing in dotted lines the parts in position to be welded. Fig. 3 is an end elevation of the same. Fig. 4 is an elevation of a former. Fig. 5 is an elevation of the backing-block. Fig. 6 is a plan view of the body of the share and a side view of the bar which is to form the flange of the said share.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a swage to be used in welding the triangular bar which is to form the flange of the point or share to the body of the same.

The invention consists of the swage-box A, which is secured on an anvil by the entrance of its pin *a'* in the anvil-socket. The side plate of the swage projects upward at a right angle to the bottom plate, and is provided near each end with the perpendicular slots *b' b'*, in one of which the backing-block B is adjusted by the set-screw *c'*. The side plate is also cut away from near each end to the center on a slope to correspond with the slope of the right and left formers, C and D, one of which is shown attached in place on the swage-block by the screws *d'*, that pass through its slots *f' f'* into the bottom plate of the block, and by means of the screws and slots the formers are adjustable, and their distance from the side plate of the swage can therefore be varied.

The side plate of the former slopes from its highest point at its outer end to its bottom plate at the other end, in order to give correct form and shape to the work for which it is intended. Near the upper corner of the former is a projecting boss, *g'*, on which slides the gage E, which may be held in any desired position by the screw *h'*, that passes through a slot in said gage and into the former.

The manner of using the swage is to set it on an anvil and secure one of the formers on

it, as shown, so that the distance between the sides of the side plate and former shall exactly correspond with the thickness of the bar which is to form the flange of the point or share and which is to be welded thereto; Then the backing-block B is adjusted and secured to properly position the bar, and then the gage E is adjusted and set to gage the body of the share.

When the bar which is to form the flange and the plate which forms the body of the point or share are both brought to a welding-heat the bar is slipped into the space between the sides of the swage-block and former until it touches the backing-block. The plate is then laid upon the bar and drawn back until it strikes the gage. Then the hammer is applied, and the two are welded together, the welding to commence at the highest point of contact.

In the drawings the left-hand former is shown attached to the swage-block. When this is removed, and the right-hand former used, the positions of the backing-block and gage are correspondingly changed. As the bar is confined between the parallel sides of the swage-block and the former while the parts are being welded, it cannot be crushed or beaten down and out of shape by the hammer; but, on the contrary, it remains unyielding in shape, and thus tends to insure a more perfect welding of the parts, to which the former imparts form and shape.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The within-described swage, consisting of box A, provided with pin *a'* and perpendicular slots *b' b'*, adjustable backing-block B, adjustable gage E, and adjustable formers C and D, provided with slots *f' f'*, substantially as and for the purpose described.

2. The combination of the box A and adjustable formers C and D, substantially as herein shown and described.

WILLIAM B. HICKMAN.

Witnesses:

HARVEY C. BATES,
JOHN W. ROBERTSON.