

(No Model.)

2 Sheets—Sheet 1.

J. G. BAKER.
VISE.

No. 453,459.

Patented June 2, 1891.

FIG. 1.

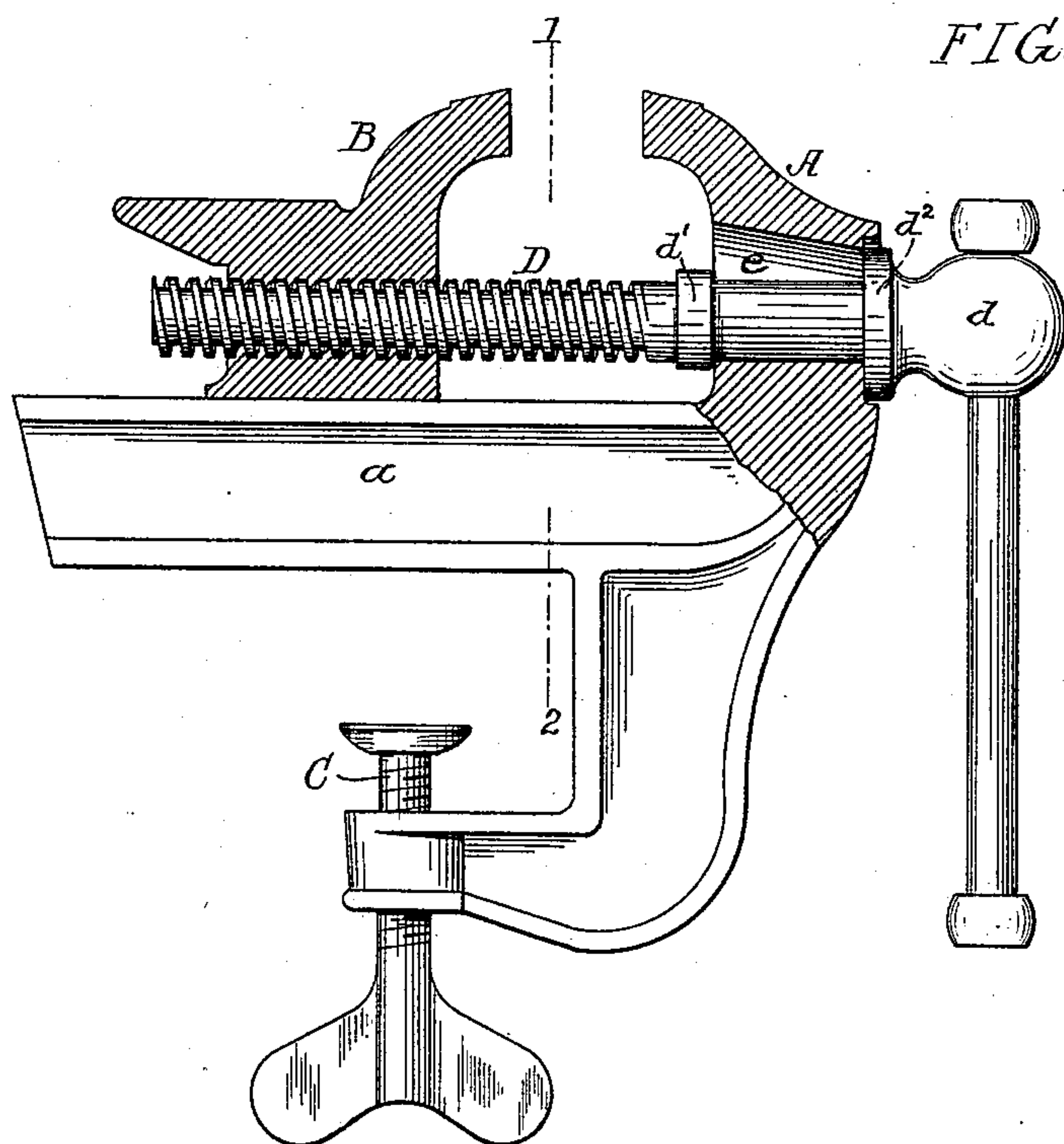
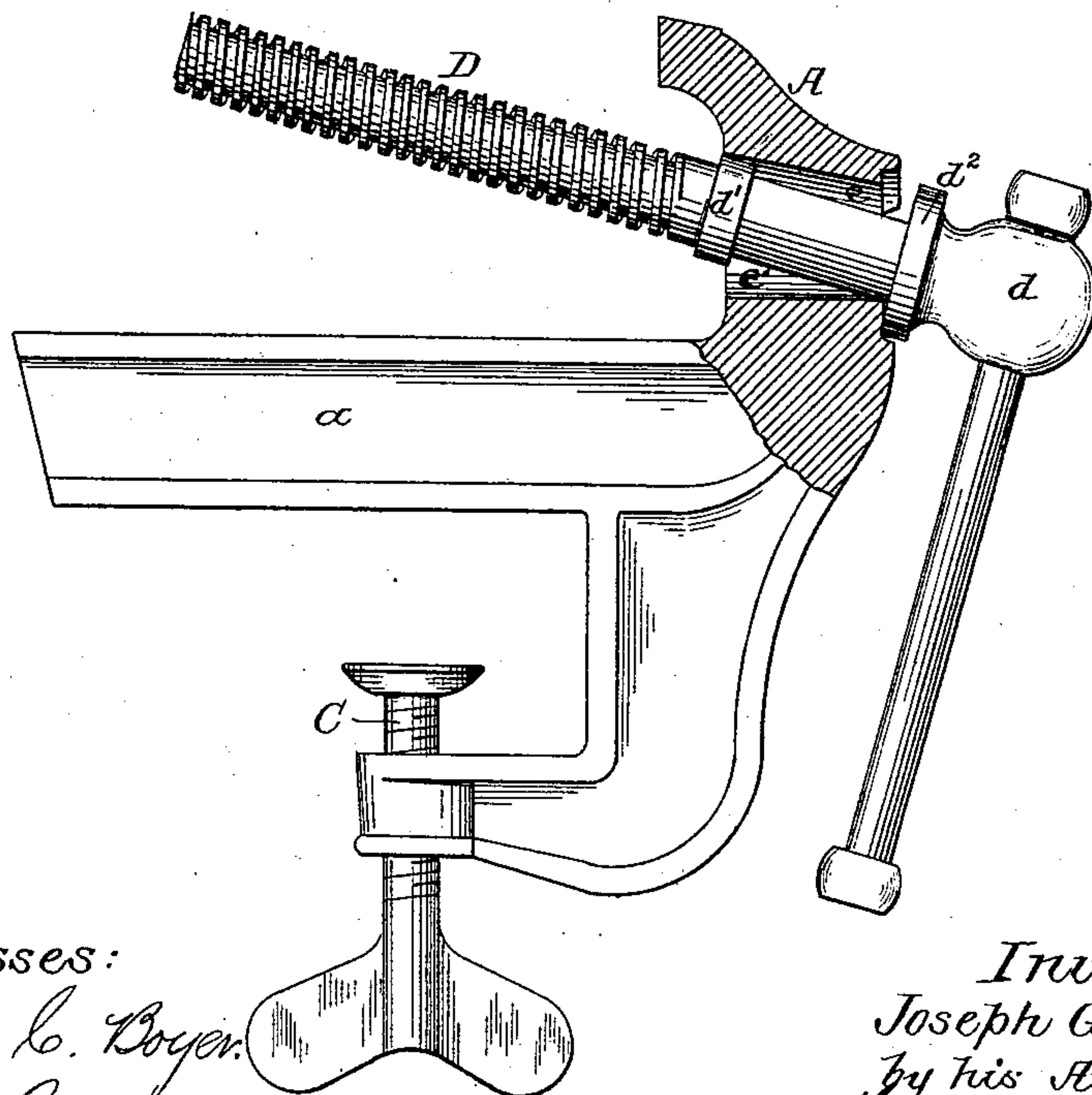


FIG. 2.



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Murray L. Boyer.
A. V. Grouse.

Inventor:
Joseph G. Baker
by his Attorneys
Howson & Howson

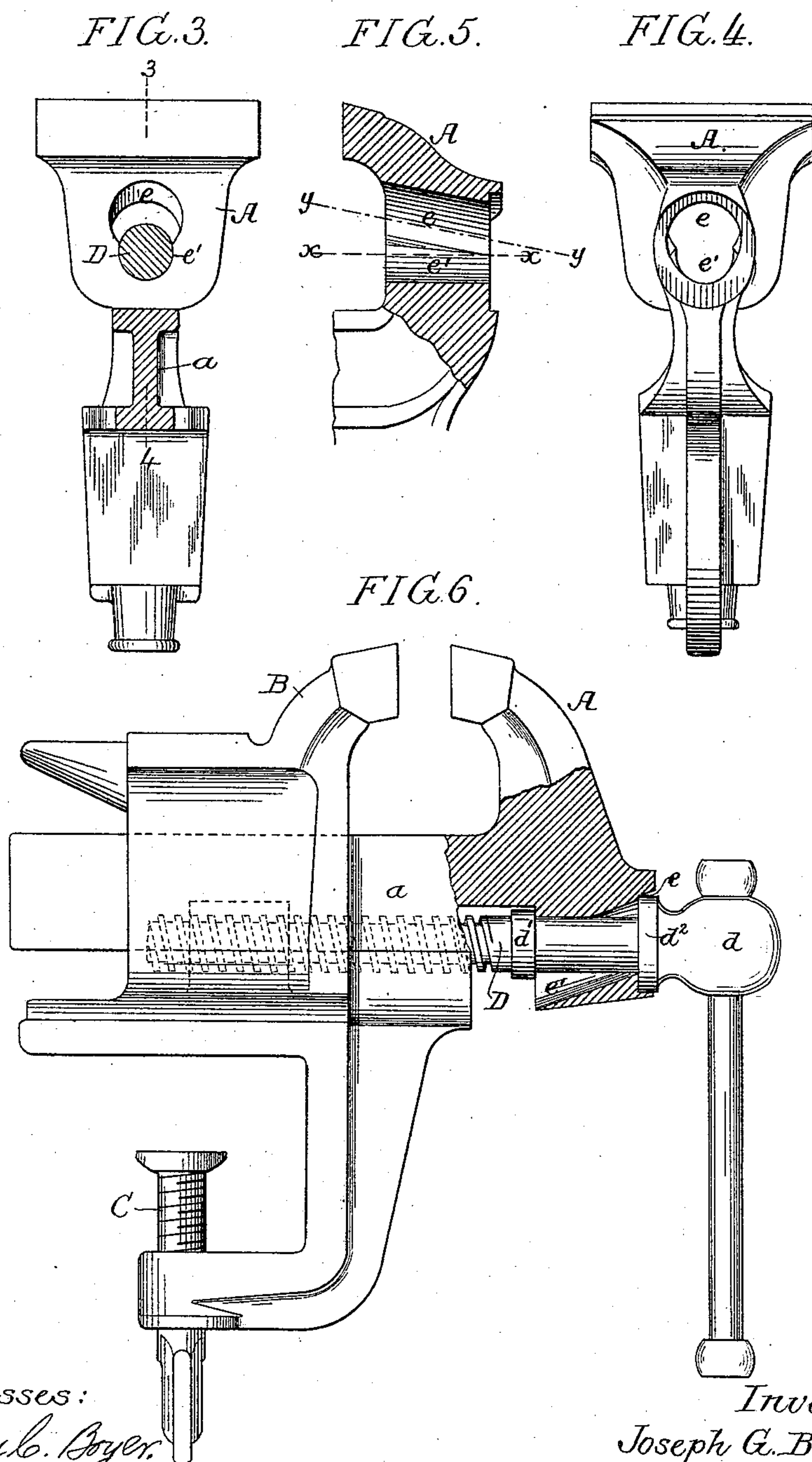
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UNITED STATES PATENT OFFICE.

JOSEPH G. BAKER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ARMSTEAD O. BILLS, OF SAME PLACE.

WISE.

SPECIFICATION forming part of Letters Patent No. 453,459, dated June 2, 1891.

Application filed July 10, 1890. Serial No. 358,253. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH G. BAKER, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Vises, of which the following is a specification.

The object of my invention is to lessen the labor and expense in fitting up vises, especially those having parallel jaws. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of a parallel-jaw vise constructed in accordance with my invention. Fig. 2 is a view of a portion of the vise. Fig. 3 is a section on the line 1 2, Fig. 1, showing in elevation the inner face of the fixed jaw. Fig. 4 is an elevation of the outer face of the fixed jaw. Fig. 5 is a section on the line 3 4, Fig. 3, and Fig. 6 is a view, partly in section, of another form of vise, showing my invention applied thereto.

The vise shown in the accompanying drawings is one of the ordinary cast-iron or steel vises of cheap construction, the present invention being designed to still further cheapen the cost of production by lessening the expense of fitting the parts to each other.

Referring to Figs. 1, 2, 3, 4, and 5, A represents the fixed jaw of such a vise; B, the movable jaw suitably guided on an extension *a* of the fixed jaw, and C the clamping-screw by which the vise may be secured in position. The feed-screw D is provided with a head *d* and two collars *d'* *d*² of unequal diameter, the whole being preferably made from a single piece of metal.

In one of the jaws of the vise is formed an opening E for the reception of one end of the screw-stem, and such opening is formed by an inclined way *e*, having its center line at *y y*, and being of sufficient diameter to allow the passage of the small collar *d'* and a straight way *e'*, semicircular in cross-section and having its sides merging into the way *e*, such straight way being of the same diameter as that portion of the screw-stem between the collar *d'* *d*². The center line of this straight way is shown at *x x*, Fig. 5, and is in

the same horizontal plane with the threaded portion of the movable jaw.

In fitting the parts together the screw-stem D is held in an inclined position with respect to the jaw and is inserted through the opening E in a line with the inclined way *e*, the whole of the screw-stem being passed through such way until the collar *d*² prevents any further movement by coming in contact with the outer face of the jaw, as shown in Fig. 2. The screw-stem is then lowered until the portion between the collars *d'* *d*² rests in the way *e'*, the movable jaw B is placed in position, the screw is given a few turns to engage its threaded portion with the threads in the jaw B, and the fitting is completed, any upward movement of the screw being prevented by the jaw B, while the collars *d'* *d*² pressing against the opposite faces of the jaw A prevent any longitudinal movement of the same.

In the form of vise shown in Fig. 6, the screw D is held in the movable jaw of the vise, the way *e* in this case being inclined in a direction opposite to that in the vise shown in Fig. 1.

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

The combination, in a vise, of the screw-stem, two bearing-collars of unequal diameter thereon with the fixed and movable jaws, one of which is threaded for the reception of the screw-stem, and the other jaw being provided with an opening for the reception of the screw-stem, such opening being formed by an inclined way *e* of sufficient diameter to admit of the passage of the smaller of the collars on such screw-stem, and a straight way *e'* merging into the inclined way, said straight way being of a diameter equal to that of the screw-stem between the collars, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH G. BAKER.

Witnesses:

H. F. REARDON,
HENRY HOWSON.