

(No Model.)

H. FOCKEN.
JOINER'S SET.

No. 408,473.

Patented Aug. 6, 1889.

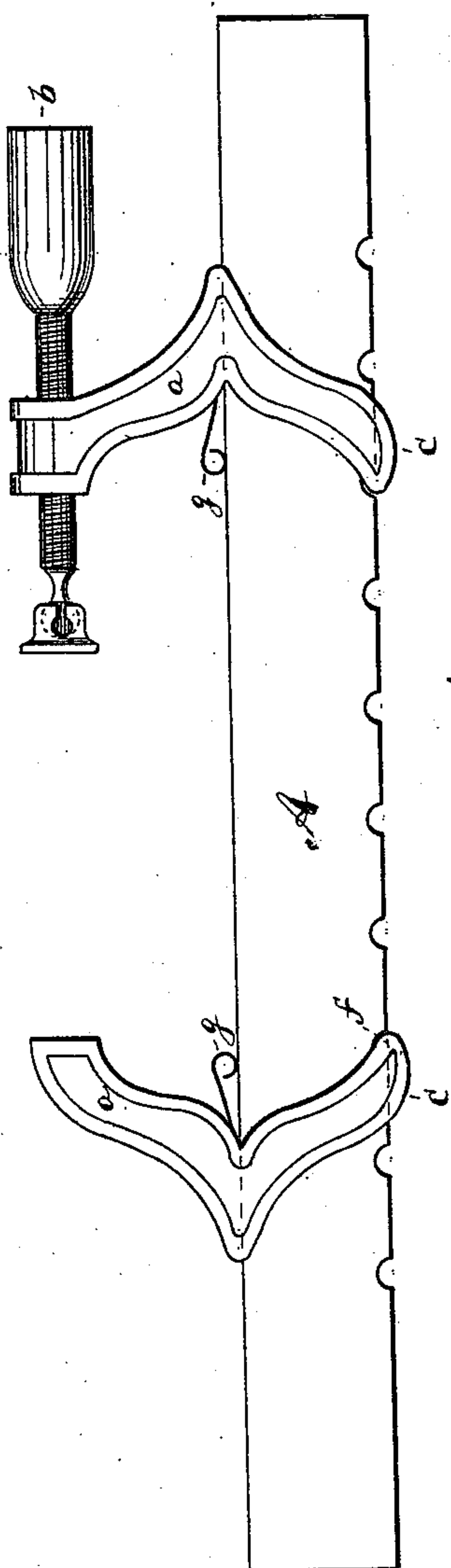


FIG. 1

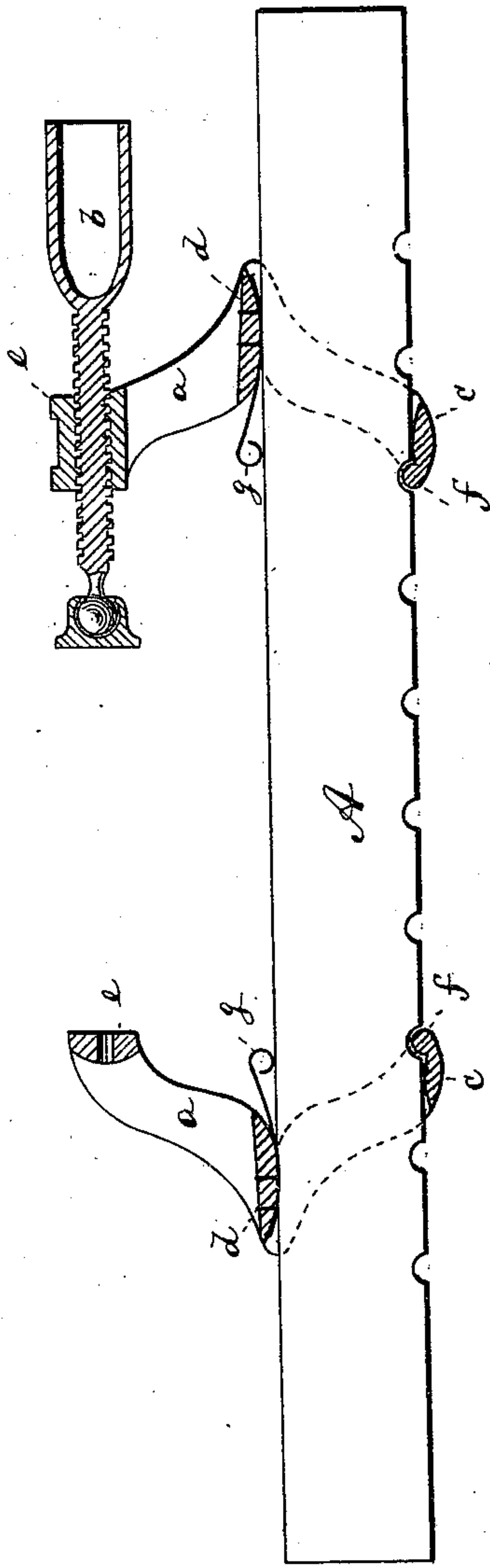


FIG. 2

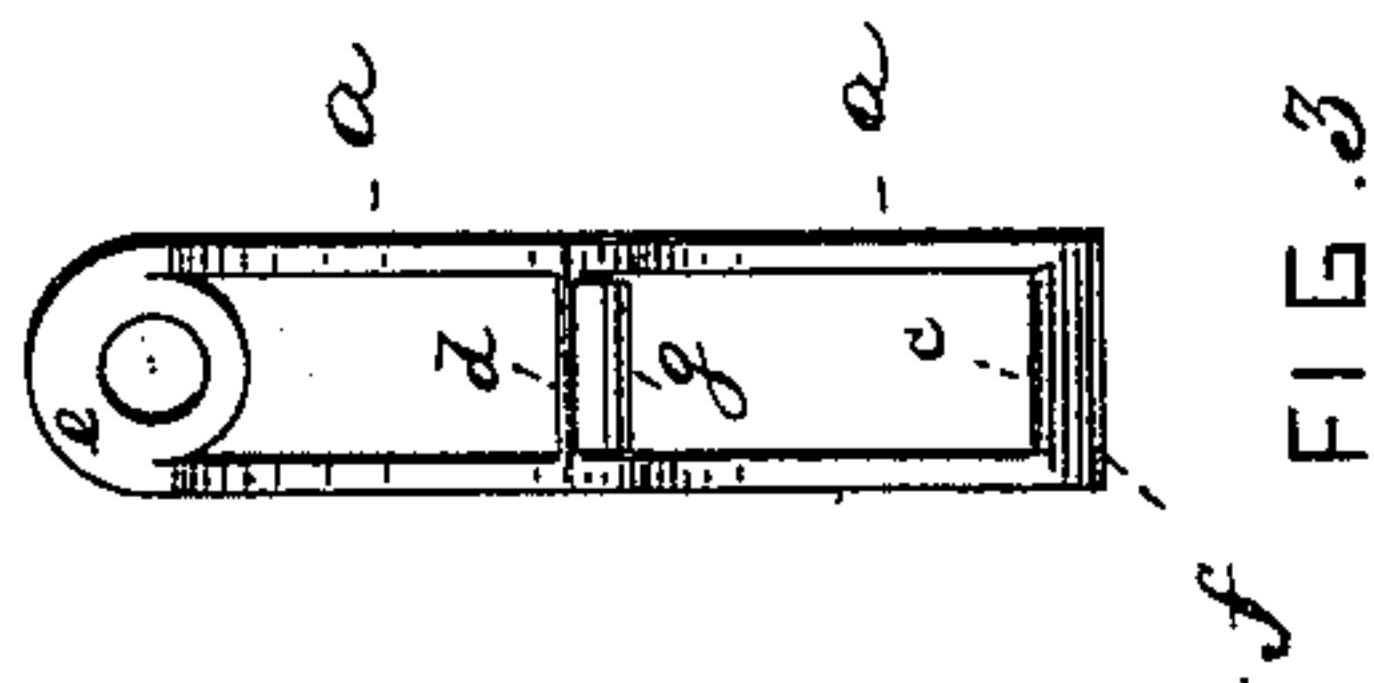


FIG. 3

WITNESSES

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JOINER'S SET.

SPECIFICATION forming part of Letters Patent No. 408,473, dated August 6, 1889.

Application filed December 27, 1886. Serial No. 222,606. (No model.)

To all whom it may concern:

Be it known that I, HERMANN FOCKEN, a citizen of Germany, residing at New York, in the county and State of New York, have invented a new and Improved Joiner's Set, of which the following is a specification.

This invention relates to a joiner's set so constructed that the jaws will not be apt to slip under severe pressure, and that they will be held in place without the use of clampscrews.

The invention consists in the various features of improvement hereinafter more fully pointed out.

In the accompanying drawings, Figure 1 is a side view of my improved joiner's set. Fig. 2 is a vertical longitudinal central section of the same. Fig. 3 is a face view of one of the jaws.

The letters *a a* represent the two clamping-jaws of a joiner's set, one of which carries a screw *b*, as usual. The jaws *a* are made V-shaped in side view, as shown, and each is composed of two side pieces that are connected by a bottom piece *c*, a central bridge *d*, and an upper perforated block *e*, as shown.

A is the beam, which is straddled by the lower part of the jaw between the cross-pieces *c d*, which lower part thus forms a sliding yoke.

The lower edge of the beam *A* is notched at preferably equal intervals, and the bottom piece *c* is provided with a rib *f*, adapted to engage one of said notches. Thus the jaw is properly held in place. To maintain the jaw in a proper upright position, I attach to the lower side of bridge *d* a spring *g*, which has a bearing on the upper edge of beam *A* and throws the jaw well back, such spring projecting with its free end forward of the jaw, as shown. The bridge *d*, I make somewhat convex or bulged downwardly, so as to have a central bearing on the beam.

If it is desired to move the jaw *a* forward or backward, pressure is applied to its upper end, so as to oscillate it against the action of spring *g* on bridge *d*, and to thus withdraw the rib *f* from the notch of beam *A*. The

jaw may then be moved to any desired extent, and when it has reached the proper place it is released, whereupon the spring *g* will throw it back into its upright position, while the rib *f* will engage a new notch. Thus it will be seen that the position of the jaws may be readily varied.

The V-shaped form of the jaw has various advantages. Among others it permits a ready tipping over of the jaw and it affords ample room for the work to be clamped.

I am aware that it is not new to provide the holder-bar of a clamp with teeth on one of its longitudinal sides and similar teeth in a movable jaw, and such jaw has been provided with a spring for normally holding the teeth in engagement, and therefore do not wish to be understood as claiming such devices, broadly. I attach importance to the employment of the two movable V-shaped clamping-jaws, and also to the fact that the bridge *d* is convex on its engaging side, and also to the use of the spring arranged so as to have their bearing on the bar outside of the jaws.

It will be observed that both of the V-shaped clamps *a a* are adjustable longitudinally on the bar *A*, and that they are also adjustable on their rocking bridges *d d* for the purpose of engaging the transverse ribs *f f* with the notches in the lower edge of said bar.

It will be observed that the upper surface of the bottom pieces *c c* are convex in a reverse direction to the convex bottoms of the bridges *d d*. Thus by simply tilting the clamps toward each other the ribs *f f* are disengaged from the notches and the jaws can be adjusted at any desired distance apart. Furthermore, it will be observed that the springs *g g* are curved upward and terminate in downward curves or eyes, which impinge directly upon the top edge of the bar *A*.

What I claim is—

The improved joiner's clamp, consisting of the notched bar *A*, the two longitudinally-movable clamps thereon having the V form described and straddling said bar, each

clamp being provided with a bridge or rocker
5 *d*, convex on its bottom and having a spring
secured thereto, terminating in an eye-bearing,
the transverse bottom piece *c*, convex on its top
and provided with a rounded rib *f*, and the
clamping-screw *b*, tapped through the upper
part of one of the clamps, all constructed

and adapted to operate substantially as de-
scribed.

H. FOCKEN.

Witnesses:

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