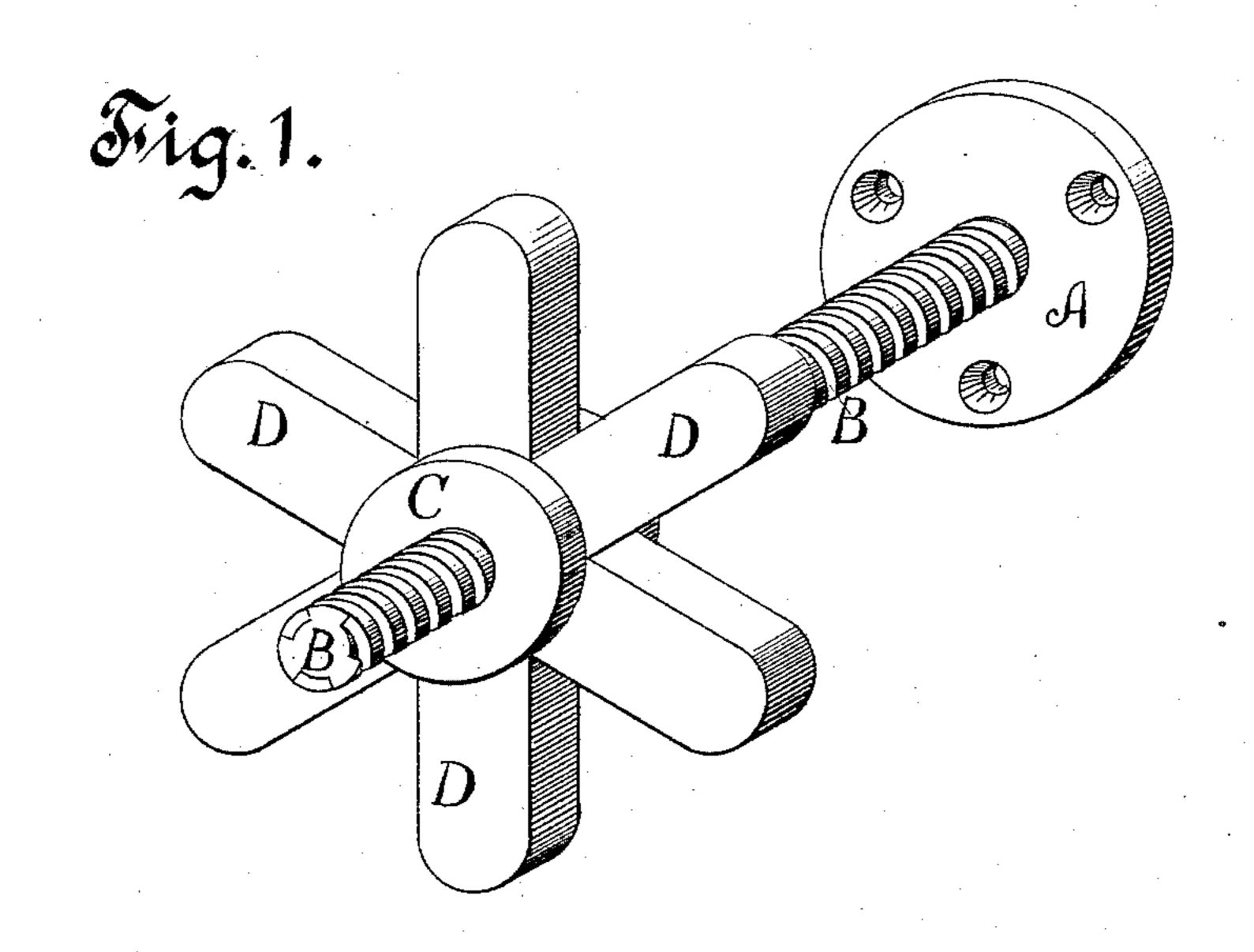
(No Model.)

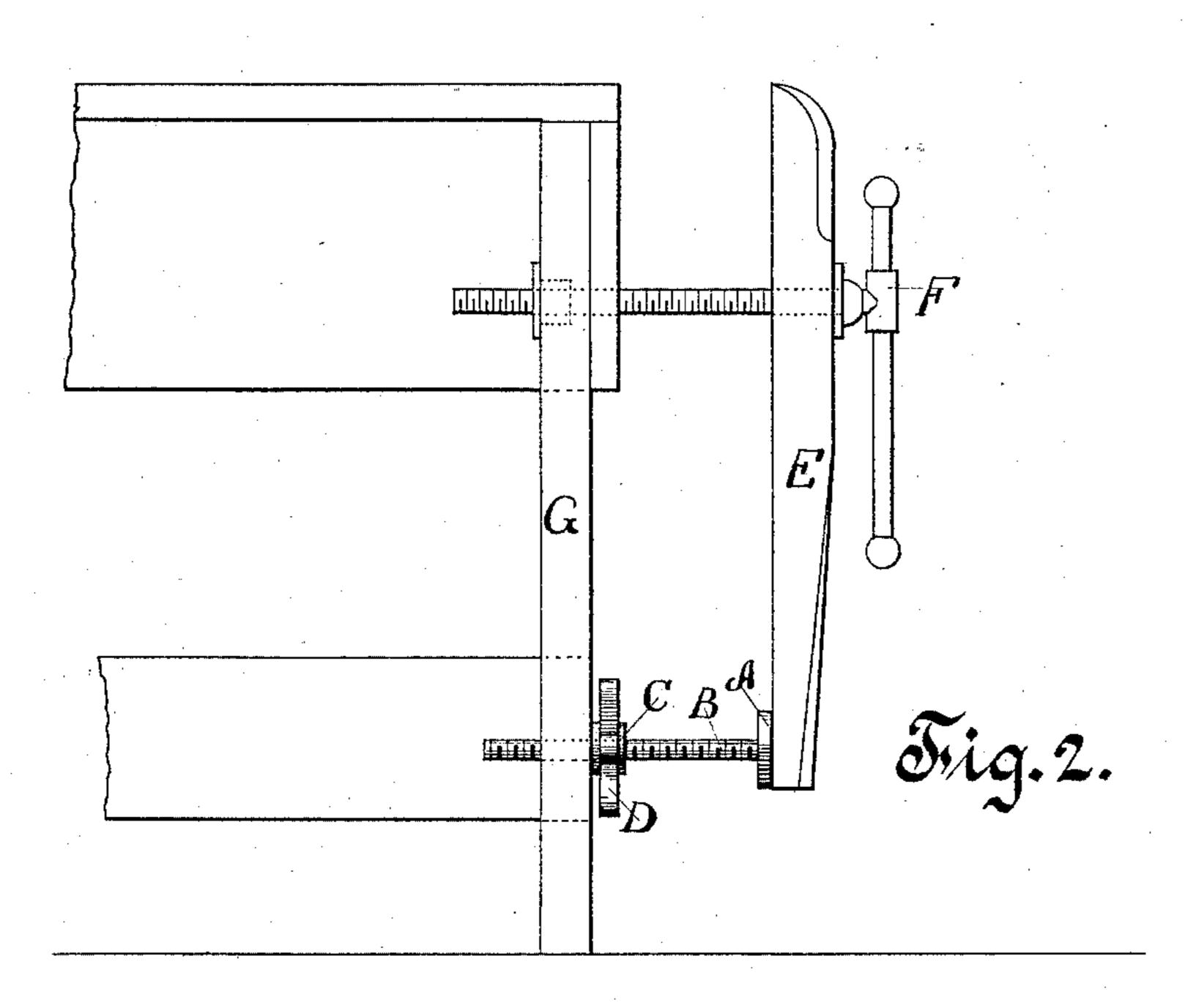
## F. MICHEL.

## ADJUSTABLE STRUT FOR VISES.

No. 396,755.

Patented Jan. 29, 1889.





WITNESSES:

Lewis Van Liew A. C. Mase INVENTOR,
Frank Abichel

BY Lon Vangham

ATTORNEY,

## United States Patent Office.

FRANK MICHEL, OF BLAIR, NEBRASKA.

## ADJUSTABLE STRUT FOR VISES.

SPECIFICATION forming part of Letters Patent No. 396,755, dated January 29, 1889.

Application filed August 27, 1888. Serial No. 283,864. (No model.)

To all whom it may concern:

Be it known that I, Frank Michel, a citizen of the United States, residing at Blair, in the county of Washington and State of Nebraska, have invented a new and useful Adjustable Strut for Vises, of which the follow-

ing is a specification.

My invention relates to improvements in struts used between the lower ends of the jaws of upright vises for the purpose of adjusting the movable jaw to bring it parallel with the fixed jaw when objects of different thickness are gripped; and the objects of my invention are, first, easy and rapid adjustment by either the foot or hand of the operator; second, a strut that can be attached to an ordinary vise with the minimum of labor. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a projection of the strut alone. Fig. 2 is a view of the strut applied to an or-

dinary vise on a carpenter's bench.

Similar letters refer to similar parts throughout the several views.

The screw B has one of its ends riveted into an aperture in the center of a disk, A, the face of the disk being at right angles to the length of the screw. The disk A is provided with countersunk screw-holes adapted to receive screws, by which it is attached to the face of the jaw E, thus holding the screw B in the horizontal position shown in Fig. 2, the screw passing loosely through an auger-hole in the benchleg G. The screw B is triple-threaded, and has a cylindrical nut, C, adapted to it, which revolves on the screw between the movable

jaw E and the fixed jaw G and one of the flat ends of the nut adapted to bear against the leg G. The nut C is provided with radial arms D, by which it may be turned with the 40 foot or hand, and the distance between the extreme surfaces of the nut and disk be thereby lengthened or shortened to agree with any desired position of the vise-screw F, thus allowing parallel adjustment.

I do not wish to be limited to a triple-threaded screw, but use this as a means of increasing the rapidity of action of the strut. It being only necessary to bore one hole and drive three screws to attach the strut to an ordinary vise, the small amount of labor required

is obvious.

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

Patent, is—

In a vise, the combination, with the jaws thereof, of a screw, B, one end of which is riveted to a disk, A, provided with screw-holes, whereby the screw B is attached so as to project at right angles from the inner face of the 60 lower end of the movable jaw E and pass loosely through an aperture in the fixed leg or jaw G, the screw B being provided between the jaws with a revolving nut, C, bearing against the fixed jaw G, and having radial 65 arms by which it may be turned, substantially as described.

FRANK MICHEL.

Witnesses:

EMMETTE BOLT, E. D. WILDS.