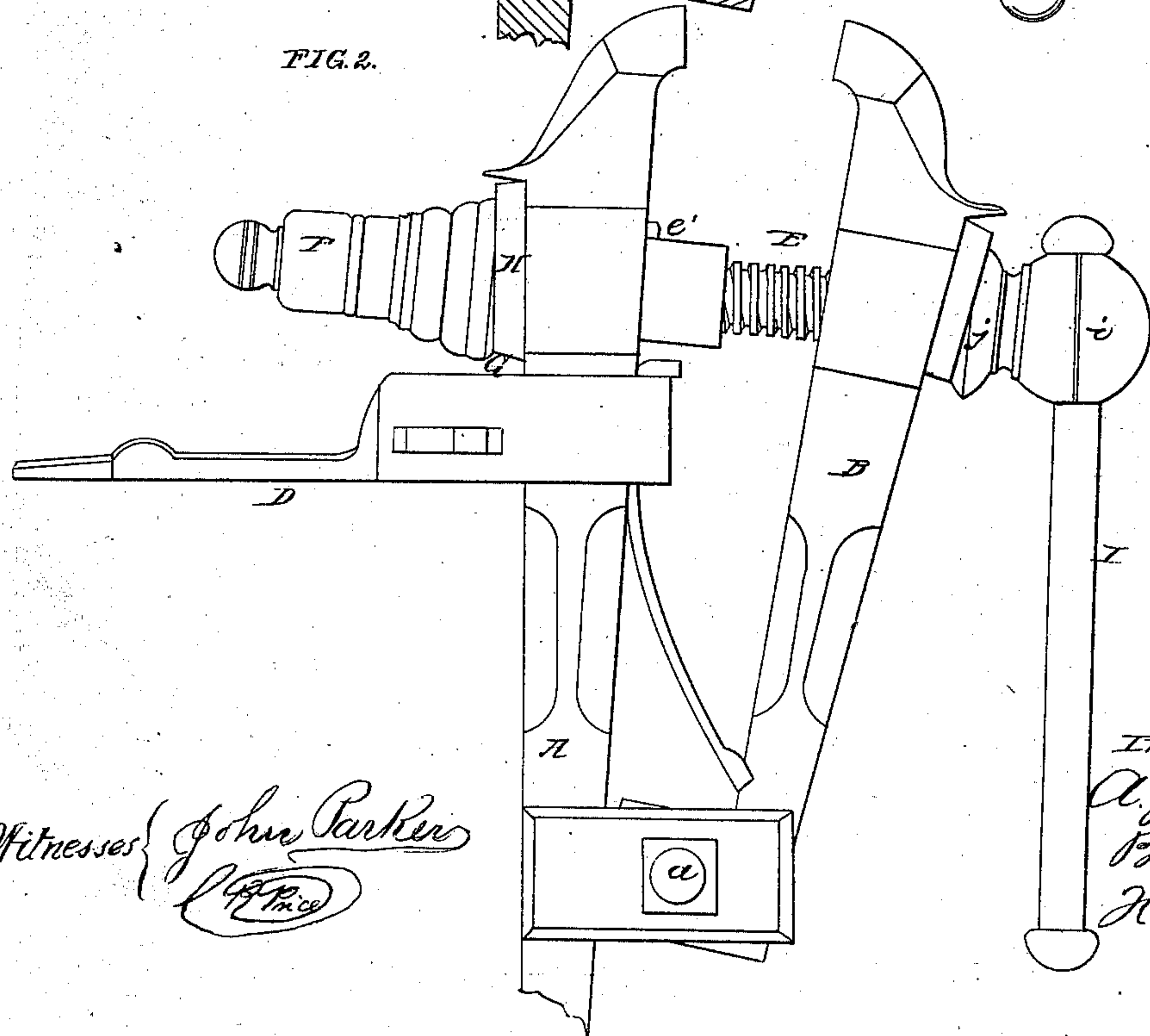
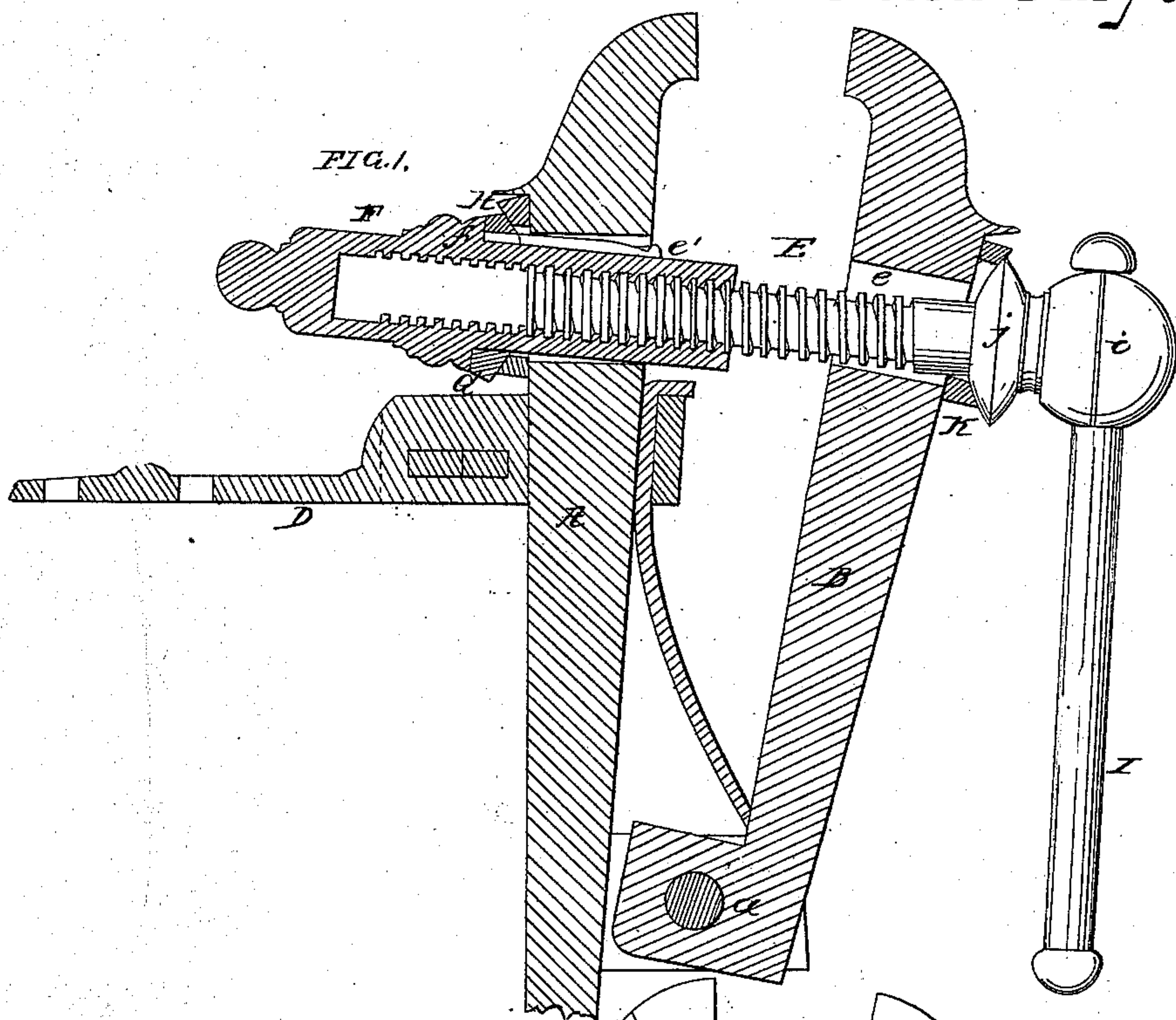


A. Jamieson,

Vise.

*N<sup>o</sup> 56,057.*

*Patented July 3, 1866.*



Witnesses { John Parker  
W. P. Price

Inventor  
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By  
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att'y



# UNITED STATES PATENT OFFICE.

ABIEZER JAMESON, OF TRENTON, NEW JERSEY.

## IMPROVEMENT IN VISES.

Specification forming part of Letters Patent No. 56,057, dated July 3, 1866.

*To all whom it may concern:*

Be it known that I, ABIEZER JAMESON, of Trenton, New Jersey, have invented an Improvement in Vises; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of certain concave washers, in combination with convex collars, on the usual socket and screw of an ordinary vise, the whole being constructed and arranged, as fully described hereinafter, so that the jaws of the vise may be adjusted to any desired position without bending the screw or socket or straining any of their parts.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a sectional view of a vise with my improvement, and Fig. 2 an exterior view.

A is the stationary and B the movable jaw of the vise, the latter jaw being hinged by a pin, *a*, as usual, and the stationary jaw being secured to the bench by a projection, D, in the ordinary manner. The jaws are otherwise constructed in a manner similar to those of vises in common use.

E is a screw passing through an opening, *e*, in the movable jaw B, and having threads adapted to internal threads in the socket F, which passes through an opening in the stationary jaw A, and which is prevented, as usual, from turning round by a feather or projection, *e'*, the latter, however, being such as not to prevent a free vertical vibration of the socket in the opening of the stationary jaw.

On the socket E is a collar, *f*, against which fits the plane rear of a washer, G, the front of which is convex and adapted to the concave rear of another washer, H, the plane front of which bears against the rear of the stationary jaw A.

The screw F terminates in front in the usual spherical or other suitably-formed enlargement *i*, through which passes the ordinary vise-handle I, and at the rear of this enlargement is a collar, *j*, having a convex face adapted to the concave front of a washer, K, the plane rear of which fits against the front face of the movable jaw B of the vise.

In vises of the ordinary construction a collar on the socket F bears directly against the

rear of the stationary jaw A and a collar on the screw directly against the front of the movable jaw B; or plane washers are sometimes introduced between the collar on the screw and the movable jaw.

Those familiar with the construction and use of ordinary vises are aware that the bearing-surfaces of the collars of the socket and screw against the jaws vary according to the position assumed by the movable jaw. For instance, when the jaws are wide apart the upper portion only of the screw-collar bears against the movable jaw or against the intervening washer, whereas when the jaws are near together the whole collar may bear against the movable jaw; hence the extent of bearing-surface continually changes according to the relative position of the jaws, and an undue friction and strain and an unequal wear and tear of the bearing parts must of necessity ensue, so that the screw is frequently bent or stripped, while the socket is often split or broken.

It will be evident that this defect is obviated by my invention, the bearing-surfaces of the washer G and collar *j* accommodating themselves to the different positions assumed by the jaws, the washers H K sliding upward on the faces of the jaws as the latter are opened, so that the screw and socket never assume such an angle to the jaws as to occasion undue friction or strain any of the parts.

As the washers G H are detachable, they may be readily applied to vises of the ordinary construction without altering the latter. A detachable washer may also be used in place of the collar *j*, and may be applied, with the washer K, to ordinary vises in the same manner as the washers G H.

I claim as my invention and desire to secure by Letters Patent—

1. The screw E, with its convex collar or washer *j*, adapted to the concave sliding washer K, substantially as and for the purpose described.

2. The combination of the above with the washers G and H, intervening between the collar *f* of the socket F and the fixed jaw A of the vise.

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

ABIEZER JAMESON.

Witnesses:

CHARLES B. PRICE,  
CHARLES E. FOSTER.