C. A. BLAKELY.

VISE.

APPLICATION FILED APR. 2, 1918.

1,273,319.

Patented July 23, 1918.

2 SHEETS—SHEET 1.

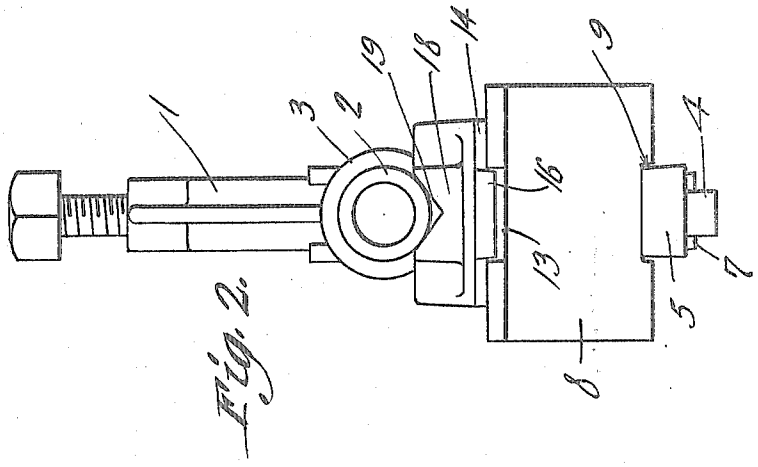


Fig. 2.

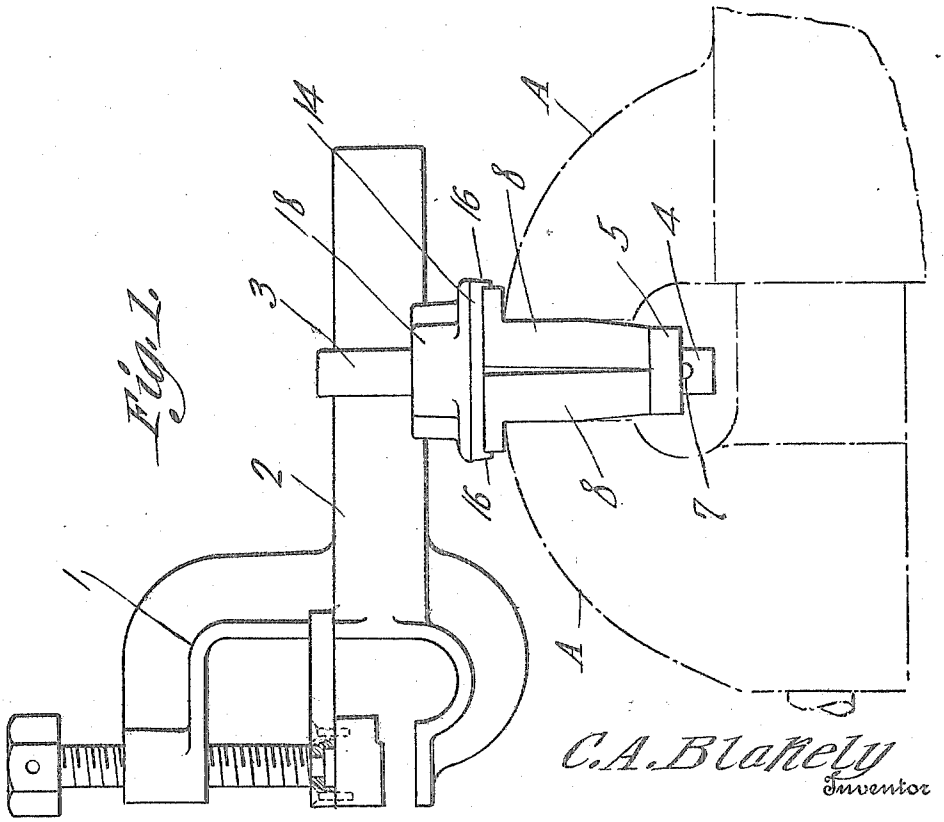


Fig. 1.

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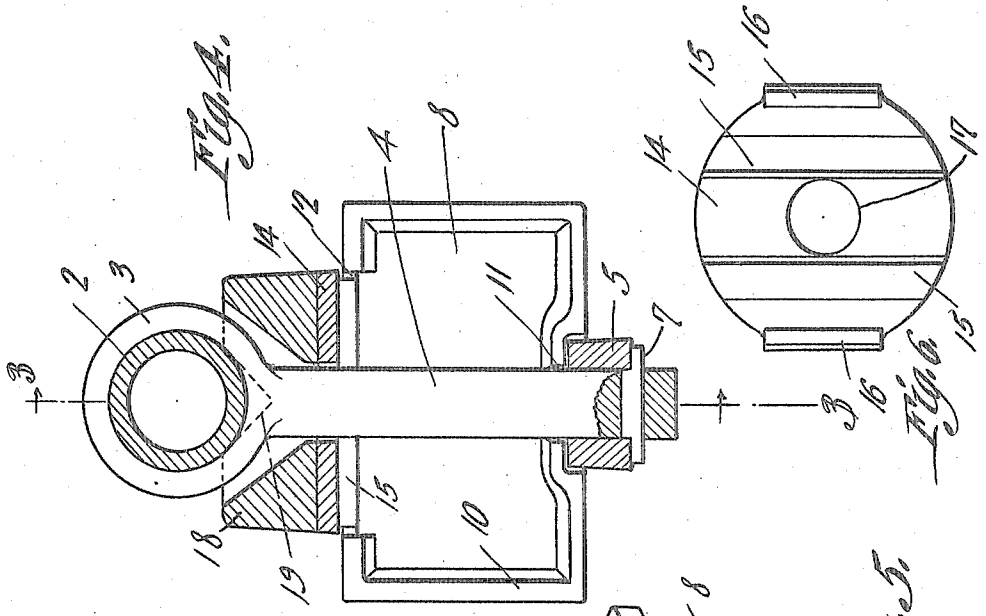


Fig. 4.

Fig. 6.

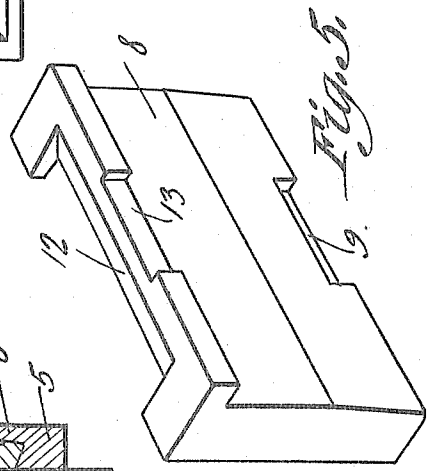


Fig. 5.

Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES A. BLAKELY, OF PLANO, ILLINOIS.

VISE.

1,273,319. Specification of Letters Patent. Patented July 23, 1918.

Application filed April 2, 1918. Serial No. 226,212.

To all whom it may concern:

Be it known that I, CHARLES A. BLAKELY, a citizen of the United States, residing at Plano, in the county of Kendall and State of Illinois, have invented a new and useful Vise, of which the following is a specification.

This invention relates to vises and more especially to auxiliary clamps for use in connection therewith, one of the objects of the invention being to provide an attachment, a clamp or supplemental vise and a support therefor, the support including means insertible between the jaws of a main or supporting vise and which, when gripped between said jaws, will shift the parts of the support of the auxiliary clamp thus to hold said clamp against movement relative to its supporting vise.

A further object is to provide a self-adjusting supporting mechanism which is simple and efficient, durable and formed of but few parts.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claim it being understood that various changes may be made in the construction and arrangement of the parts without departing from the spirit of the invention set forth in the appended claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings

Figure 1 is a side elevation of the auxiliary clamp in position upon a bench or main supporting vise.

Fig. 2 is a rear elevation thereof.

Fig. 3 is an enlarged section on line 3—3, Fig. 1.

Fig. 4 is a section through the device, taken on line 4—4, Fig. 3.

Fig. 5 is a detail view of one of the tiltable blocks of the device.

Fig. 6 is a bottom plan view of the saddle of the device.

Referring to the figures by characters of reference 1 designates the gripping portion of the auxiliary clamp, the same being of the ordinary vise construction and having a cylindrical shank 2 extending from the fixed jaw thereof. This shank extends through and is designed to slide within an eye 3 formed at the upper end of a bolt 4, and mounted on the lower end of the bolt is a supporting block 5 provided, at opposite sides, with upstanding lips 6. The block is held upon the bolt by a cross pin 7.

The bolt 4 is extended between two opposed blocks 8 which are tiltably mounted on the block 5 and are provided in the lower ends of their outer sides with recesses to receive the lips 6, these recesses being shown at 9. Flanges 10 extend inwardly from the edges of the tiltable blocks 8 and are cut away, as at 11, to receive the bolt 4.

The top flanges 10 of the blocks 8 are beveled as shown at 12 and formed in the outer sides of the blocks at the tops thereof are recesses 13.

A saddle 14, preferably in the form of a disk, is normally supported on the blocks 8 and has downwardly extending parallel ribs 15 the outer sides of which are beveled, these ribs normally resting in the recesses formed by the bevels 12. Lips 16 extend downwardly from the saddle and project loosely into the recesses 13, thereby to limit the outward tilting of the blocks 8. A central opening 17 is formed in the saddle through which the bolt 4 extends, and arranged on the saddle is a washer 18 having a tapered opening for the reception of the eye 3 of the bolt.

Under normal conditions the blocks 8 are tilted apart and against the lips 16 and the wall of the recess or opening in the washer 18 is out of contact with the eye 3, and the shank 2 is supported loosely within alining recesses 19 in the top of the washer. Thus the auxiliary clamp can be adjusted to any desired position relative to its supporting structure. When, however, the blocks 8 are placed between the jaws A of a vise and gripped tightly thereby, the blocks will be tilted toward each other, thus causing the bevels 12 to press against the beveled faces of the ribs 15 and thrust the ribs and the saddle 14 upwardly. This will cause the walls of the recesses 19 to press against the shank 2 and will secure the shank against movement within the eye 3. As soon as the jaws A are loosened or moved apart, the grip upon the shank 2 will be released.

What is claimed is:—

An auxiliary clamp attachment for vises, including a bolt having an eye, a shank adjustably mounted in the eye, clamping mem-

bers carried by the shank, a supporting block upon the bolt, oppositely disposed tiltable blocks upon the supporting block, a saddle resting on the tiltable blocks and limiting the movement of said blocks from each other, a shank engaging member upon the saddle, and coöperating means upon the saddle and tiltable blocks for shifting the saddle along the bolt and binding the last named member upon the shank when the tiltable blocks are pressed toward each other.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES A. BLAKELY.

Witnesses:

L. N. SHRAFFER,

GLEN BURROUGHS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."