J. H. JERRIM.

MACHINE OR OTHER VISE.

APPLICATION FILED JULY 7, 1919.

1,368,399.

Patented Feb. 15, 1921.

2 SHEETS—SHEET 1.

Fig. 1

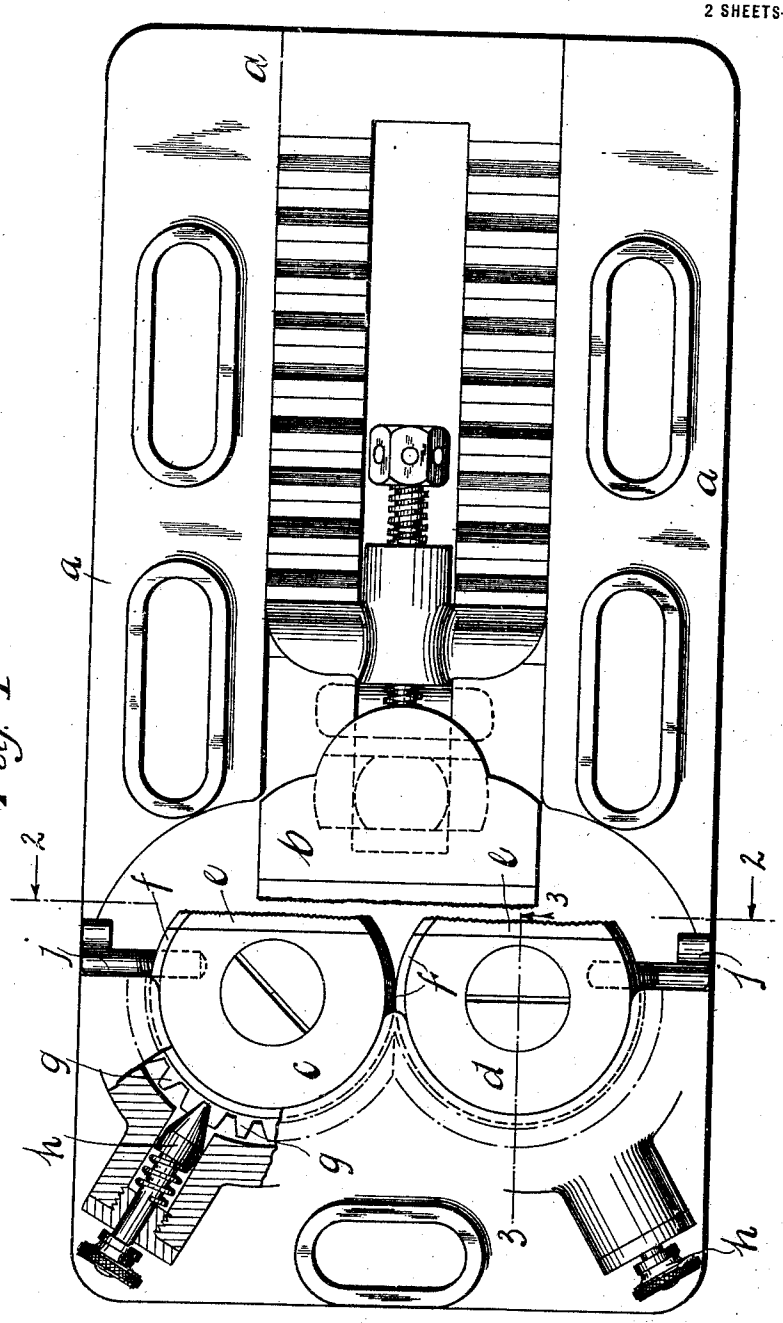

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Fig 2

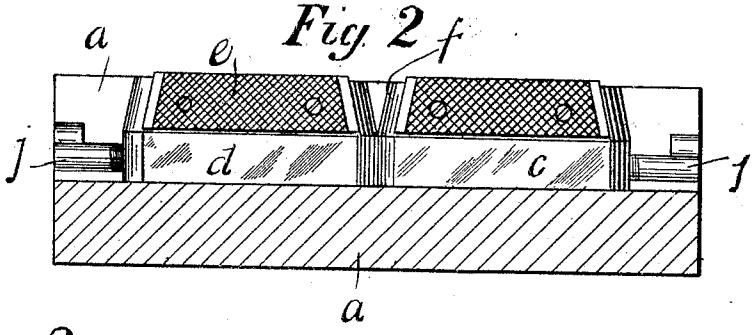


Fig 3

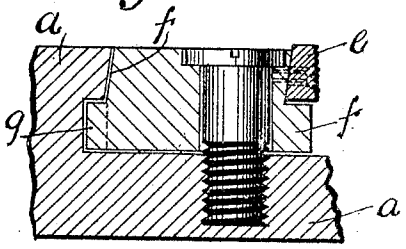


Fig 5

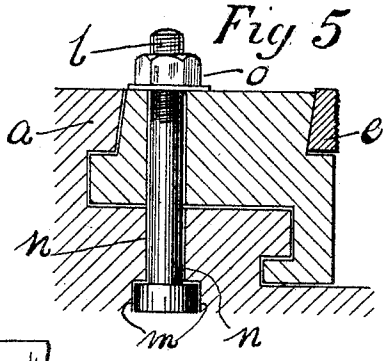
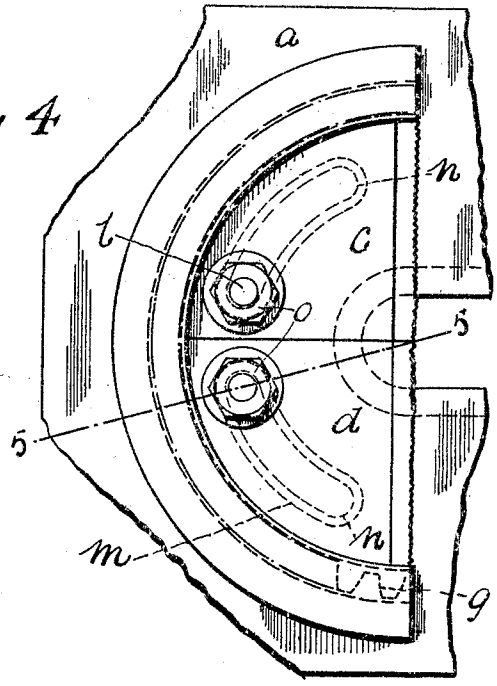


Fig 4



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UNITED STATES PATENT OFFICE.

JAMES HENRY JERRIM, OF BROMSGROVE, ENGLAND.

MACHINE OR OTHER VISE.

1,368,399. Specification of Letters Patent. Patented Feb. 15, 1921.

Application filed July 7, 1919. Serial No. 309,124.

To all whom it may concern:

Be it known that I, JAMES HENRY JERRIM, subject of the King of Great Britain, residing at "The Oaklands," Bromsgrove, county of Worcester, England, engineer, have invented certain new and useful Improvements Relating to Machines or other Vises, of which the following is a specification.

This invention comprises improvements relating to machine and other vises and like work holding or setting appliances, of the type in which the surfaces of the jaws or any of them, comprise adjustable elements which may conform more nearly to the shape of irregular bodies.

The object of the invention is to obtain this effect in a simple construction avoiding multiplication of parts comprising the adjustable elements.

In accordance with the invention at least one jaw of the vise is formed of two or more parts, preferably two, each comprising a single unit, for example of segmental form, having a gripping face and being pivoted so that the faces of the two parts may be set at various inclinations, and combined with these parts or members are means for locking them rigidly in adjusted position.

Various means for adjusting the two parts or members of the jaw may be employed and it should be understood that the adjustable parts may be applied to the fixed jaw or movable jaw of the vise as desired.

Instead of applying the invention to a vise with a rack and a bed for bolting to a shaping, milling, or like machine table I may provide a fixed jaw, with my adjustable parts applied, for bolting direct to the table and I may mount the movable jaw in a slide on a separate simple plate or casting for bolting direct to the table; the casting or plate having an upstanding portion through which the usual operating screw of the movable jaw works.

In order that the invention may be thoroughly understood and easily carried into practice I have appended hereunto two sheets of drawings showing two examples of the construction.

Figure 1 is a plan partly in section.

Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a section on line 3—3 of Fig. 1.

Fig. 4 is a similar view to Fig. 1, part only being shown, illustrating a modification.

Fig. 5 is a section on line 5—5 of Fig. 4.

In the examples shown in Figs. 1 to 3, *a* is the casting or body of the device and *b* the movable jaw. The arrangement of the movable jaw follows on the lines of the ordinary Taylor machine vise. Instead of a fixed jaw in one piece I employ two pivotal members *c* and *d* having jaw faces *e* arranged side by side opposite the movable jaw. The members *c*, *d*, are beveled as at *f* and provided with teeth or like means *g* for coöperating with any suitable positioning device, such as a spring plunger *h*. The casting *a* has upstanding abutments to receive the backs of the jaw members *c* and *d* to relieve the pivots of strain, and these abutments have an inclined face each to cooperate with the beveled face *f* of the member so that under pressure the member is forced downwardly into gripping position.

For adjusting the jaw members *c*, *d*, any suitable means such as the L pins *j* may be provided returning the members by hand after the locking means have been relieved. By withdrawing the plungers *h* and adjusting the members *c*, *d*, the face of the fixed jaw may be varied to insure a grip on articles having various contours.

In the modification shown at Fig. 4 the members *c*, *d* are of quadrant form having an integral pivot projection and each jaw member has a bolt *l* passed through it, the head of which bolt is received in a recess or groove *m* surrounding a slot *n* through which the bolt shanks work so that the members may be turned at various angles to each other and secured by the nuts *o*. The plunger positioning device may be omitted or used in addition as desired.

The gripping parts of the jaws may be faced with beveled jaw plates see Fig. 3, like the Taylor machine vise, for pulling the work down as the jaws are closed.

What I claim is:—

1. Machine and other vises comprising in combination, a bed and jaws mounted on the bed, at least one of said jaws being divided into separate members each pivoted independently in said bed and each having a gripping face, and positive means for locking each of the separate members into which the jaw is divided in any position in which it may be adjusted around its pivot.

2. Machine and other vises comprising in combination, an attachment bed, a pair of jaws on said bed, one jaw being divided into

two pivotal segmental members with their pivots disposed side by side, an abutment on said bed against which said members bear to support their pivots, and positive means for locking each pivotal member in any position in which it is adjusted around its pivot.

3. Machine and other vises comprising in combination, an attachment bed, a pair of jaws on said bed, one jaw being rapidly adjustable along a rack on said bed with means for finely adjusting it, the other jaw being divided into a pair of pivotal members disposed side by side on said bed, each of said members being adjustable independently on its pivot and means for locking said members in any position in which they are adjusted about their pivots.

In testimony whereof I affix my signature.

JAMES HENRY JERRIM.