R. C. SHAW AND F. C. SKADAN.

CLAMP.

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1,381,351. Patented June 14, 1921.

Fig. 1.

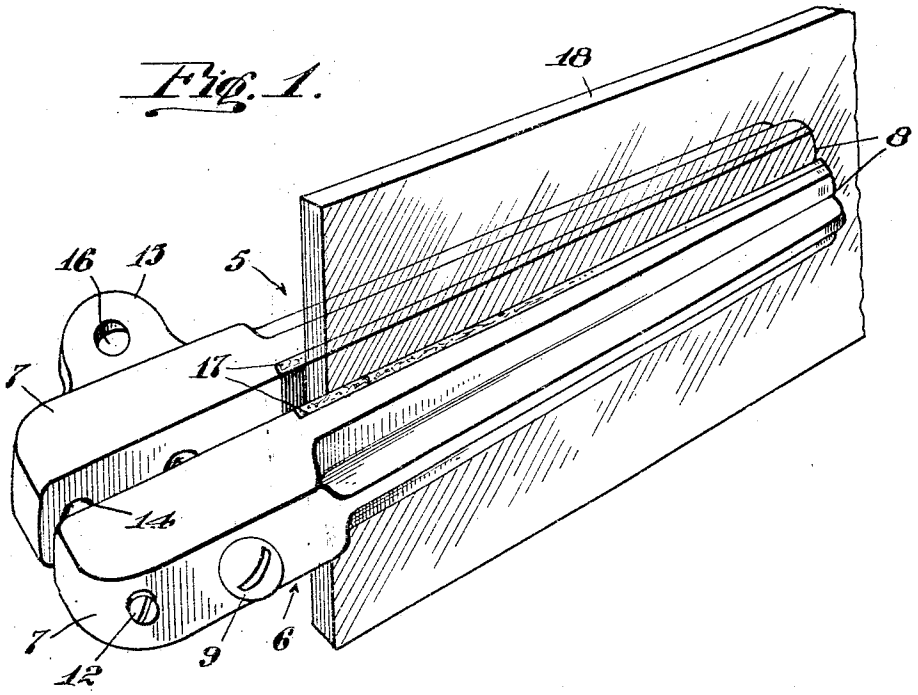
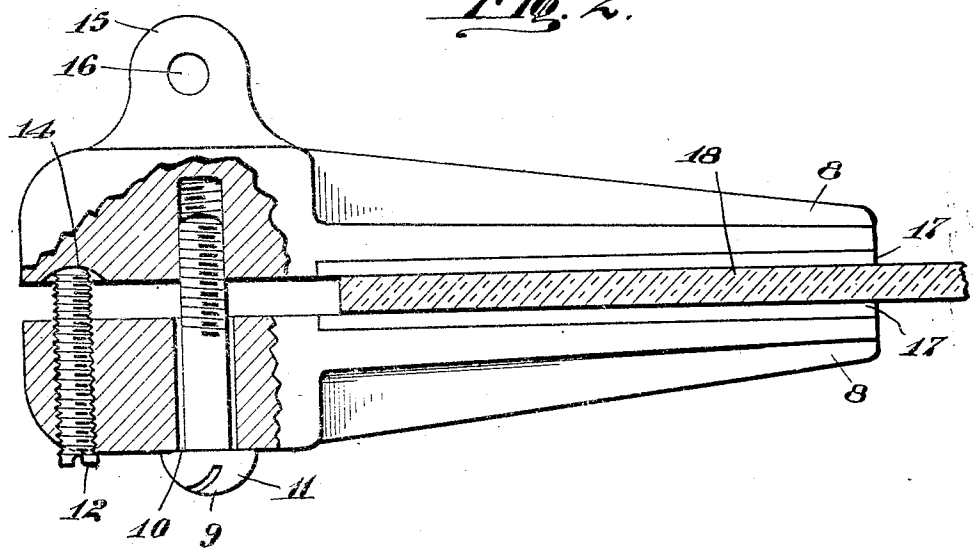


Fig. 2.



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CLAMP.

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To all whom it may concern:

Be it known that we, ROLLA C. SHAW and FLOYD C. SKADAN, citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Clamps, of which the following is a specification.

This invention relates to a clamp and particularly pertains to a device for engaging and supporting a vertical plate.

It is the object of this invention to provide a clamp by means of which a plate of glass or similar article may be gripped and supported without the necessity of forming the plate with openings or depressions and by which the plate may be engaged intermediate its ends without requiring a support at its top or bottom edges.

Another object is to provide a clamp which may be readily adjusted to fit plates of various thicknesses and effect a strong and substantial engagement therewith.

A further object is to provide a clamp of the above character which is adapted to afford a pivotal mounting for the plate held thereby.

Other objects will appear hereinafter.

The invention is illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the clamp, showing it as applied in gripping and supporting a plate of glass.

Fig. 2 is a plan view of the clamp, with portions broken away, to show the screw clamping and adjusting elements thereof.

More specifically, 5 and 6 indicate the jaw members of the clamp which are separable and of nearly corresponding construction. Each of the jaw members is formed at its inner end with a block-like body portion 7 having an elongated extension 8 constituting a gripping member at the outer portion of the jaw member. The inner face of the body portion 7 and the extension 8 are disposed substantially in alinement so that when the jaw members are assembled the adjacent faces thereof may be positioned to extend parallel with each other. The connections between the jaw members embody a screw 9 which projects loosely through an opening 10 in the body portion of the jaw member 6 and is screwed into engagement with the body portion of the jaw member 5; the screw being formed with a head 11 adapted to bear on the outer face of the jaw member in such manner that when the screw is tightened the jaw members will be drawn toward each other.

As a means for spacing the jaw members and limiting the movement of the body portions thereof toward each other, a set screw 12 is screwed in the body portion of the jaw member 6 and extends therethrough parallel with the screw 9; the inner end of the set screw being adapted to seat in a depression 14 formed in the inner face of the body portion of the jaw member 5.

To afford a pivotal mounting for the clamp, the body portion of the jaw member 5 is formed on its outer face with a lug 15 extending in the direction of the length of the jaw member opposite the part of engagement therewith of the screw and having an opening 16 therein to receive a pivot pin by which the clamp may be mounted on any suitable support to swing horizontally.

The adjacent faces of the extensions 8 are covered with strips 17 of yieldable material, such as felt, which form the gripping surfaces of the clamp.

In the operation of the invention, the jaw members are suitably spaced apart by unscrewing the screw 9 to permit a plate 18 being interposed between the extensions 8, whereupon the set screw 12 is adjusted to position the jaw members substantially parallel with each other and parallel with the opposite sides of the plate 18. On tightening the screw 9 the jaw members will be drawn together to position the strips 17 in tight contact with the opposite sides of the plate 18 so as to rigidly and securely support the plate between the jaws. The screw 12 reposing in the detent 14 acts as a fulcrum point for the upper jaw member. As the screw 9 is tightened the forward ends of the jaw members tend to move toward each other at a faster rate than the intermediate parts, inasmuch as the force drawing the jaw members together is applied at a point intermediate of the fulcrum point provided by the end of the screw 12. The resulting movement of the jaw members results in the maximum pressure being exerted against the plate 18 at the forward ends of jaw members, as is found to be advantageous particularly in holding glass

plate. The opening 10, allows of movement of the screw 9 to compensate for the relative movement of the two jaw members. The yieldable strips compensate for the relative difference of movement between the outer and intermediate parts of the clamp and thereby tend to contact equally at all points with the plate assuring a large contacting area. Where the plate is of considerable length, any desired number of the clamps may be employed to effect a substantial support therefor.

By the use of this invention the plate may be supported vertically without the necessity of forming openings or recesses therein and without requiring a rest or support for the lower edge of the plate; the clamps being adapted to be disposed at suitable intervals between the ends of the plate in frictional engagement therewith. The clamps may be pivotally connected to any suitable means of support not necessary to be here shown.

We claim:

A clamp comprising a pair of jaw members each of which is formed with a block-like body portion having an elongated extension projecting in continuation of said body portion; a set screw threaded through the body portion of one of said jaw members to project into a recess on the inner face of the other jaw member, to act as an adjustable fulcrum, a tightening screw disposed intermediate of said set screw and the outer ends of said extension and passing loosely through the body portion carrying the set screw and threaded into the other body portion, said tightening screw having a head arranged to bear on the outer face of the jaw member through which it passes to engage the latter, and yieldable strips secured to the inner face of the extensions of said jaw members.

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