W. A. NUNEMAKER & V. A. TOBEY.

DOOR SUPPORTING CLAMP.

APPLICATION FILED FEB. 4, 1916.

1,202,209. Patented Oct. 24, 1916.

Fig. 1.

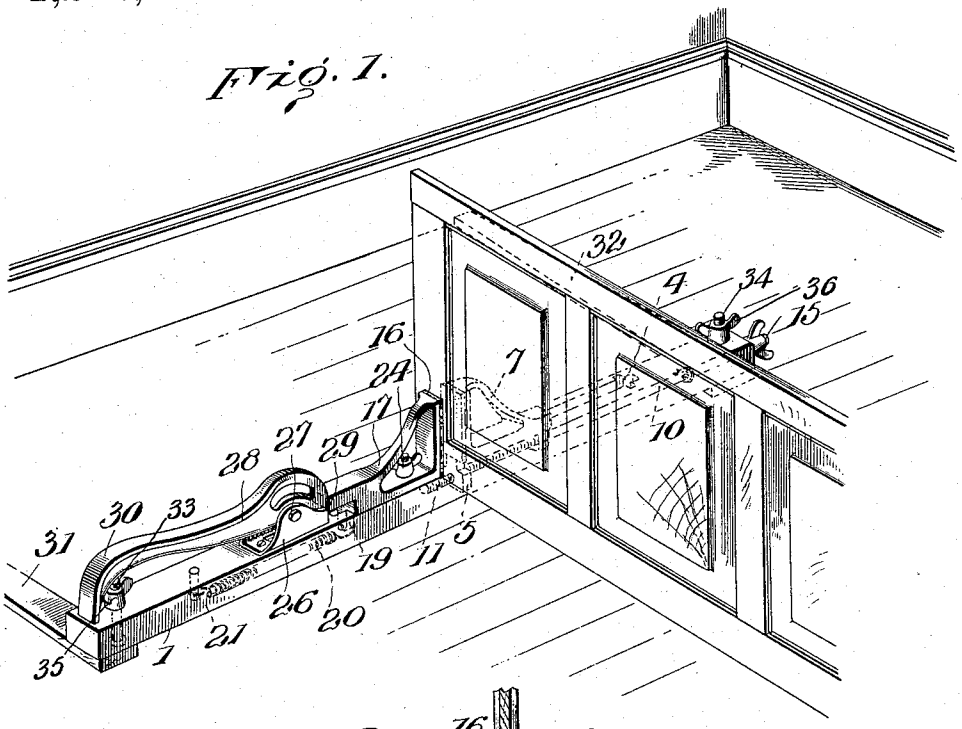


Fig. 2.

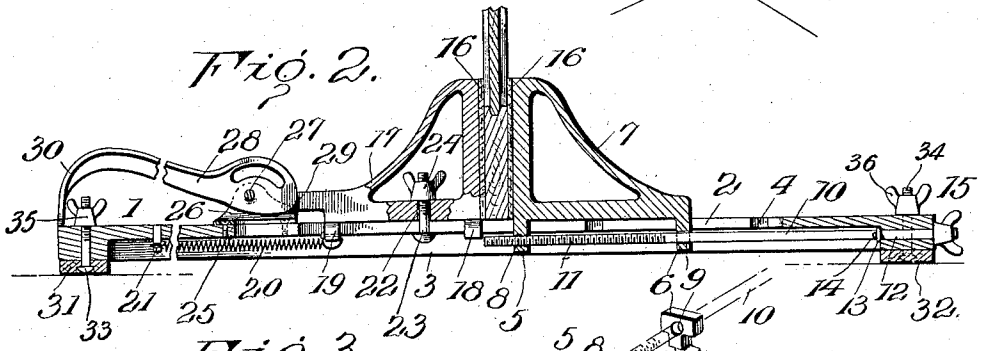


Fig. 3.

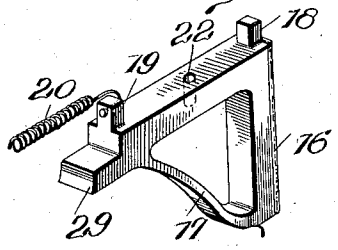
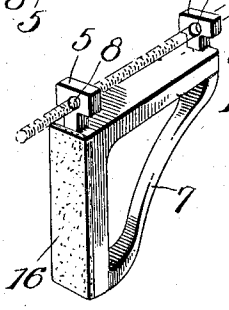


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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DOOR-SUPPORTING CLAMP.

1,202,209. Specification of Letters Patent. Patented Oct. 24, 1916.

Application filed February 4, 1916. Serial No. 76,183.

To all whom it may concern:

Be it known that we, WILLIAM A. NUNEMAKER and VERNON A. TOBEY, citizens of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Door-Supporting Clamps, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to certain new and useful improvements in door supporting clamps and is in the nature of an improvement upon Patent #1,165,975, issued to O. E. Johnson, December 28, 1915; the object being to improve the general construction of clamp and to provide means for adjusting and locking the adjustable jaw in such a manner that it will be held rigidly in adjusted position.

Another object of our invention is to provide the adjustable jaw with T-shaped guide lugs in order to hold the same in position upon the case, one of said lugs being provided with a threaded bore to receive an adjusting screw so as to allow the jaw to be moved upon the base and be held in adjusted position.

Another and further object of the invention is to provide novel means for mounting the adjusting screw in the base so as to allow the same to be readily rotated; said screw passing through a lug in the jaw so as to prevent the jaw from rocking or moving in any way, whereby a two-point attachment is formed for the adjustable jaw so that the same is guided and held firmly on the base.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing—Figure 1, is a perspective of our improved door clamp showing the door secured in position therein; Fig. 2, is a longitudinal vertical section through the clamp partly in elevation; Fig. 3, is an inverted perspective of the spring-actuated jaw; and Fig. 4, is an inverted perspective of the adjustable jaw, showing the feed screw in position within the guide lugs.

Like numerals of reference refer to like parts in the several figures of the drawing.

In the drawing, 1 indicates an oblong base rectangular in cross section, having a longitudinal slot 2 formed in its top communicating with a longitudinal recess 3 formed in the under side of the base forming a substantially T-shaped guide-way for the purpose hereinafter fully described.

The walls of the slot 2 are provided with notches 4 through which the T-shaped lugs 5 and 6 of an adjustable jaw 7 are adapted to pass when placing the jaw 7 in position upon the base and it will be seen that in this manner, after the lugs have been forced down through the notches and moved out of alinement therewith, the jaw will be held in position upon the base so as to prevent the same from rocking.

The lug 5 of the jaw 7 is provided with a threaded bore 8 and the lug 6 is provided with an aperture 9 through which an adjusting screw 10 is adapted to pass having a threaded portion 11 working in the threaded bore 8 of the lug 5 so that by rotating the adjusting screw 10, the jaw 7 can be moved on the base and held in its adjusted position.

The outer end portion of the adjusting screw 10 is revolubly mounted in a bore 12 formed in the end of the base 1 which communicates with the recess 3, said adjusting screw being provided with a washer 13 and a cotter pin 14 for preventing the screw from moving longitudinally within the bore, the outer end of the screw having fixed thereto, a thumb nut 15 by means of which the screw is rotated so as to adjust the jaw 7.

The face of the jaw is provided with a pad 16 so as to prevent the same from injuring the door when brought into engagement therewith.

A spring-actuated jaw 17 is mounted on the base to the other side of the transverse center thereof and is provided with guide lugs 18 and 19 extending into the slot 2 the guide lug 19 being apertured to receive one end of a coil spring 20, the opposite end of which is connected to a pin 21 carried by the base and extending into the recess 3 thereof and it will be seen by this construction, that the jaw 17 is moved away from the jaw 7 by the spring.

In order to provide means for holding the jaw 17 in position on the base, we provide the base of the jaw 17 with an aperture 22 terminating in an opening formed therein and through which is adapted to pass a bolt 23, the head of which, is arranged within the recess of the base, said bolt carrying a thumb nut 24 by means of which, the jaw 17 can be

locked in its adjusted position by tightening the same.

Secured to the base 1 in alinement with the jaw 17, is a casting 25 which is provided with spaced apertured ears 26 in which is arranged a pivot 27 carrying a cam lever 28 adapted to coöperate with a curved end portion 29 of the jaw 17 by the movement of which, the jaw 17 is moved on the base against the tension of the spring; said lever being provided with a curved end portion 30 adapted to engage the base 1 as shown in Fig. 2, in order to hold the lever in the position, as shown. This construction of lever allows the same to be readily grasped by the operator in order to adjust the jaw 17 as when the lever 28 is moved into vertical position, the jaw 17 will be moved away from the jaw 7 by the action of the spring so as to allow the door to be placed between the jaw and by forcing downwardly on the lever 28, the door can be readily clamped between the jaws 7 and 17 it, of course, being understood that the jaw 7 has been adjusted into the proper position to receive the thickness of the door to be operated on.

The ends of the base are provided with pivoted feet 31 and 32 carried by bolts 33 and 34 having thumb nuts 35 and 36 for locking the feet in adjusted position so as to hold the base away from the wall to prevent the wall from being injured when the door is being operated upon.

In the operation of a clamp as herein shown, the lever 28 is moved into vertical position so as to allow the jaw 17 to move away from the jaw 7 and the jaw 7 is then adjusted away from the jaw 17, the proper distance to receive the door to be operated upon and the lever 28 is then forced downwardly which forces the jaw 17 into engagement with the door and securely clamps the door into position as shown in Fig. 1.

We claim:

1. A door-supporting clamp, comprising a base having a substantially T-shaped opening formed therein, a jaw provided with T-shaped lugs slidably mounted on said base, one of said lugs being provided with a threaded bore and the other lug with a smooth bore, a screw revolubly mounted in said base extending through said lugs having a threaded portion working in the threaded bore of said lug for adjusting said jaw upon said base, a spring-actuated jaw mounted upon said base, and a lever for actuating said jaw.

2. A door-supporting clamp, comprising a base having a longitudinal slot formed therein, the walls of which are provided with oppositely disposed notches adjacent one end, said slot communicating with a recess formed in the under side of said base, a jaw slidably mounted upon said base provided with T-shaped lugs adapted to extend through the notches of said base into the recess formed therein, one of said lugs being apertured and the other lug being provided with a threaded bore, a screw revolubly mounted in one end of said base extending through the apertured lug and having a threaded portion working in the threaded bore of said lug for adjusting said jaw, a spring-actuated jaw slidably mounted upon said base having lugs extending into the slot thereof, and a cam lever for actuating said spring-actuated jaw.

3. A door-supporting clamp, comprising a base having a pair of movable jaws mounted thereon, one of said jaws being provided with depending T-shaped lugs, one lug being apertured and the other having a threaded bore, a screw revolubly mounted in said base having means at its ends for revolving the same, said screw working through the apertured lugs of said jaw for adjusting the same, and a lever for actuating the other jaw.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WILLIAM A. NUNEMAKER.
VERNON A. TOBEY.

Witnesses:
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JAS. J. LEVICHAN.

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