A. B. MORSE.

DOOR SUPPORTING CLAMP.

APPLICATION FILED AUG. 12, 1914.

1,136,701. Patented Apr. 20, 1915.

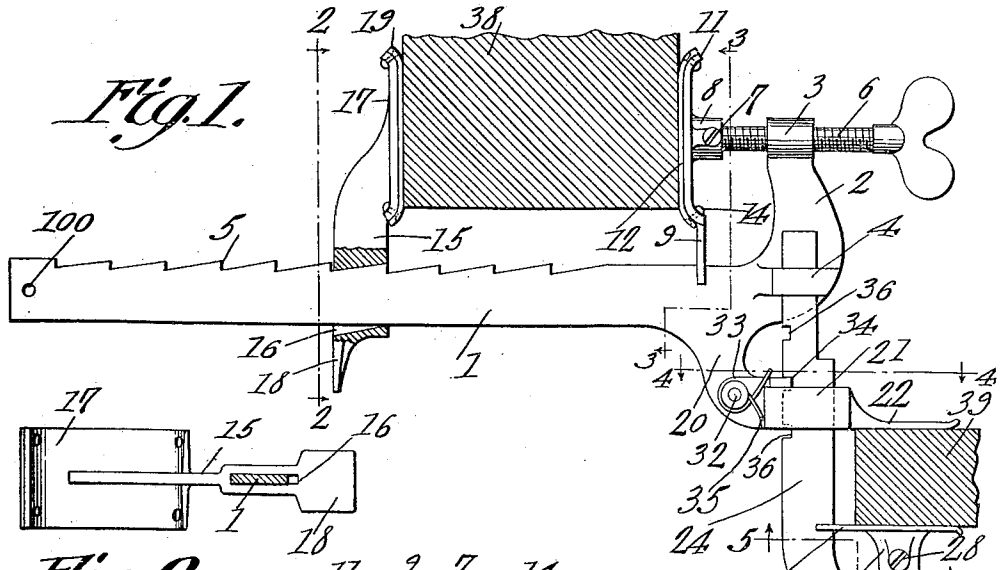


Fig. 1.

Fig. 2.

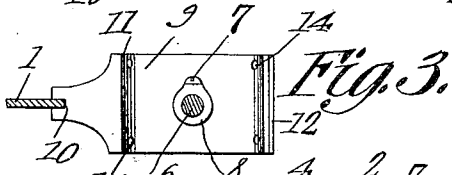


Fig. 3.

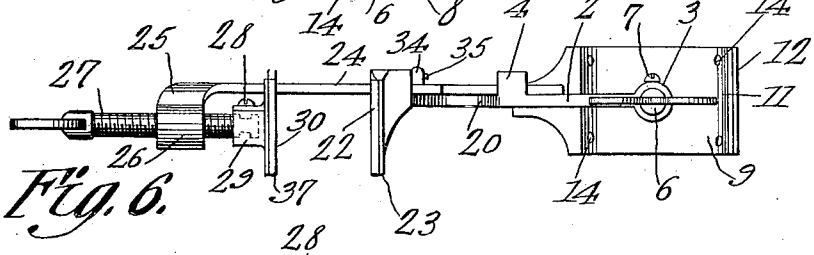


Fig. 6.

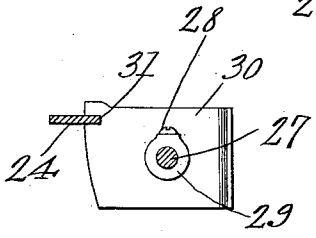


Fig. 5.

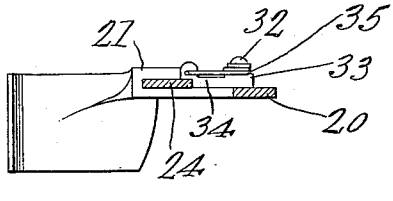


Fig. 4.

Witnesses

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DOOR-SUPPORTING CLAMP.

1,136,701. Specification of Letters Patent. Patented Apr. 20, 1915.

Application filed August 12, 1914. Serial No. 856,455.

To all whom it may concern:

Be it known that I, ANCIL B. MORSE, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented a new and useful Door-Supporting Clamp, of which the following is a specification.

The device forming the subject matter of this application is a clamp adapted to be assembled with the casing of a door or window, to hold in a vertical position, the door or window while the same is being dressed upon its edge, while the gains are being cut therein, and during other operations which necessitate holding the door or window in a vertical position.

The device herein disclosed is an improvement upon the structure shown in my Patent No. 961,983, granted to me on the twenty-first day of June, 1910.

The present invention contemplates sundry improvements in the patented structure above mentioned and the advantages and objects of the present invention will be made manifest as the description proceeds.

The drawings show typical embodiments merely and it is to be understood that changes properly falling within the scope of what is claimed may be made without departing from the spirit of the invention or jeopardizing the utility of the structure herein disclosed.

In the accompanying drawings:—Figure 1 shows the invention in plan, parts being broken away; Fig. 2 is a cross section on the line 2—2 of Fig. 1; Fig. 3 is a cross section on the line 3—3 of Fig. 1; Fig. 4 is a cross section on the line 4—4 of Fig. 1; Fig. 5 is a cross section on the line 5—5 of Fig. 1; Fig. 6 is an end elevation.

In carrying out the present invention there is provided a support in the form of a bar 1, the bar 1 at one end being equipped with an offset extension 2 terminated in a boss 3. The extension 2 is provided upon one side with a laterally projecting lug 4. Along the edge of the bar 1 are formed teeth 5.

Threaded into the boss 3 is a screw 6 held for rotation but against longitudinal movement by means of a screw 7 in a lug 8 formed on a jaw 9 extended substantially at right angles to the bar 1 and provided as shown in Fig. 3 with a notch 10 receiving the edge of the bar 1, so that the bar 1 may act as a guide for the jaw 9 and prevent the jaw 9 from rotating, should the screw 6 have some considerable amount of friction in the lug 8.

The movable jaw 9 is offset as shown at 11 and to the jaw is applied a facing 12 which may be made of leather or other suitable material. The function of this facing is to prevent a marring of the material by the jaw, but the facing may be dispensed with if desired. Rivets 14 or other securing elements adapted to a like end connect the facing 12 with the offset portions 11 of the jaw 9. Owing to the presence of the offset portions 11, the heads of the rivets 14 are set back from the working face of the jaw and will not mar the material against which the jaw bears.

The invention includes a movable jaw 15 disposed approximately parallel to the jaw 9. The jaw 15 is provided with an opening 16 through which the bar 1 passes, the axis of the opening 16 defining an acute angle with respect to the axis of the bar 1, so that when the jaw 15 is engaged with the teeth 5, the jaw will stand at right angles to the bar 1, it being possible, however, by tilting the jaw 15 slightly, to slide the jaw along the bar 1 and engage the same with any tooth 5, thus effecting a quick adjustment. The jaw 15 is equipped at one end with a foot plate 17 which coöperates with the jaw 9, the jaw 15 having at its other end a smaller and shorter foot plate 18. The foot plate 17 may carry a cushion 19 mounted in place as hereinbefore described in connection with the cushion or facing 12.

The support or bar 1 is provided with an offset extension 20 projecting in an opposite direction from the extension 2. The extension 20 is provided with an offset lug 21 and terminates in a jaw 22. As shown at 23 in Fig. 6, the jaw 22 projects to one side of a bar 24 which is mounted to slide in the lug 4 and in the lug 21.

At one end, the bar 24 is curved to form an arm 25 having a boss 26 into which is threaded a screw 27 held for rotation but against longitudinal movement by means of a screw 28 in a lug 29 formed on a jaw 30 having a notch 31 receiving the bar 24, as shown in Fig. 5. Noting the point at which the reference character 37 is applied in Fig. 6 it will be seen that the jaw 30 projects to one side of the bar 24, as does the jaw 22.

Outstanding from the portion 20 of the support 1 is a pin 32 upon which is journaled

a latch 33 having a laterally extended finger piece 34 whereby the latch may be manipulated. A spring is coiled around the pin 32. One arm of the spring 35 bears against the edge of the lug 21 and the other arm of the spring bears against the finger piece 34, so as to maintain the latch in engagement with any one of a series of notches 36 formed in the edge of the bar 24.

In practical operation, the foot plate 17 of the jaw 15 and the jaw 9 are engaged with opposite edges of a door or window jamb, indicated at 38, the jaw 15 having first been shifted to the desired position and having been engaged with the teeth 5, whereupon the screw 6 is rotated to move the jaw 9 into an operative position. In this manner, the support 1 and attendant parts are held horizontally on the jamb 38 and the device is in a position to receive the door or window 39 which is to be worked upon along its edge.

The door or window 39 is engaged between the jaw 22 and the jaw 30, the latter jaw being positioned properly by manipulating the screw 27, the jaw 22 having been first shifted to the desired position and the latch 33 having been engaged in the selected notch 36.

It is to be observed that the bar 24 may be withdrawn out of the lugs 4 and 21, to economize space when the device is placed in a tool box.

Enumerating the advantages incident to the structure herein disclosed, it is to be observed that the jaw 15 which is slidable on the bar 1 is positively held in adjusted positions by engagement with one of the teeth 5.

The thumb screw 6 which manipulates the jaw 9 is so positioned that it may be controlled by the right hand of the operator.

The jaws 9 and 15 may be made to clamp the jamb of a window, indicated at 38. Under such circumstances, the window, indicated at 39 rests at its lower edge on the floor. Owing to the fact that the jaws 22 and 30 project to the right of the bar 24, as shown in Fig. 1, the window frame indicated at 39 may rest upon the floor, as aforesaid, and still clear the window sill. This result is made possible, further, by reason of the fact, that if desired, the jaw 15 may be adjusted toward the left in Fig. 1, thus carrying the bar 24 and attendant parts to the right to enable the window which is being worked upon to clear the inwardly projecting window sill.

During the operation which consists in cutting a mortise for a lock in a door, the jaws 22 and 30 may be engaged with the door 39, as shown in Fig. 1, near to the bottom of the door. Then, if desired, a nail or the like (not shown) may be inserted through a hole 100 formed in the bar 1 near its end, and thus the door may be held against swinging. If desired, the foot of the operator may be placed upon the end of the bar 1, instead of driving a nail through the bar as above described.

At times, the operator may desire to have the jaws 22 and 30 grip the door 39 close to the point where the cutting is being done. Under such circumstances, the door 39 may be slid to the left in Fig. 1 until it passes beneath the bar 24, this operation being possible because of the fact that the jaws 22 and 30 depend below the bar 24 as shown at 23 and 37 in Fig. 6. The quick adjustment of the bar 4 afforded by the slidable mounting of the bar in the lugs 4 and 21, and the advantages incident to the use of the latch 23 and 37 in Fig. 6. The quick adjustment is effected by the parts above described, and all of the adjusting does not fall upon the screw 27. As hereinbefore stated, the bar 24 may be removed entirely, and be placed along side of the bar 1 in the tool box, thus economizing space.

It frequently happens that door and window casings are crooked, or are sprung edgewise. When a crooked or sprung casing is to be handled, the jaw 15 is removed from the bar 1 and is reversed, so that the shorter foot plate 18 coöperates with the movable jaw 9, the foot plate 18 being placed against the edge of the sprung casing and the jaw 9 being placed against the window jamb. Then, by manipulating the screw 6, the casing may be forced up into vertical alinement with the jamb and nailed in place.

Having thus described the invention, what is claimed is:—

1. In a tool of the class described, a frame embodying angularly disposed main and auxiliary bars, the main bar having a fixed jaw; a movable jaw on the auxiliary bar and coöperating with the fixed jaw; means for operating the movable jaw; a pair of jaws shiftable upon the main bar; means for advancing one of said shiftable jaws independently of the other, both of said shiftable jaws being movable and the said coöperating jaws extending from the auxiliary bar in a direction opposite to the main bar thereby to enable said coöperating jaws to clear a support wherewith the shiftable jaws are assembled.

2. In a tool of the class described, a main bar provided with a lateral offset and with a fixed jaw disposed approximately at right angles to the offset; a pair of shiftable jaws on the main bar; means in the offset for controlling one of the shiftable jaws; an auxiliary bar slidably supported upon the main bar for movement in a direction substantially parallel to the offset, the second bar being provided with a terminal offset; a movable jaw in the auxiliary bar and coöperating with the fixed jaw; means carried

by the offset of the auxiliary bar for controlling said movable jaw; and latch mechanism coöperating with the bars to prevent relative sliding movement therebetween.

3. In a device of the class described, a main bar having a fixed jaw; an auxiliary bar disposed at an angle to the main bar and slidable in the fixed jaw; a movable jaw slidable upon the auxiliary bar and coöperating with the fixed jaw; means carried by the auxiliary bar for operating the movable jaw; a pair of shiftable jaws upon the main bar and disposed substantially at right angles to the first specified jaws; and means carried by the main bar for manipulating one of said shiftable jaws independently of the other.

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

ANCIL B. MORSE.

Witnesses:
J. W. DAY,
MADELINE WOLL.

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