April 26, 1932. L. F. ZACHARY 1,855,537

WINDOW OPENER

Filed Feb. 14, 1928

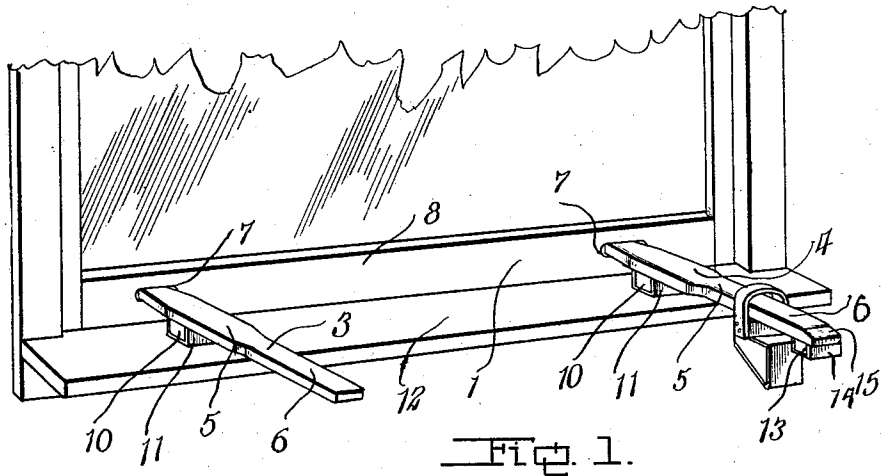


Fig. 1.

Fig. 2.

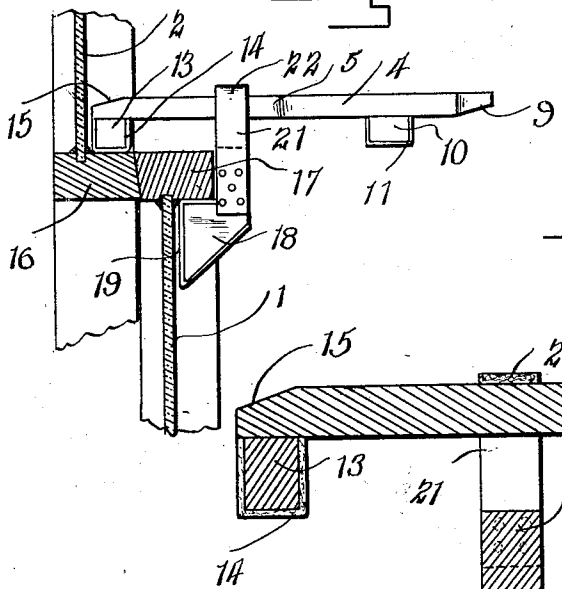
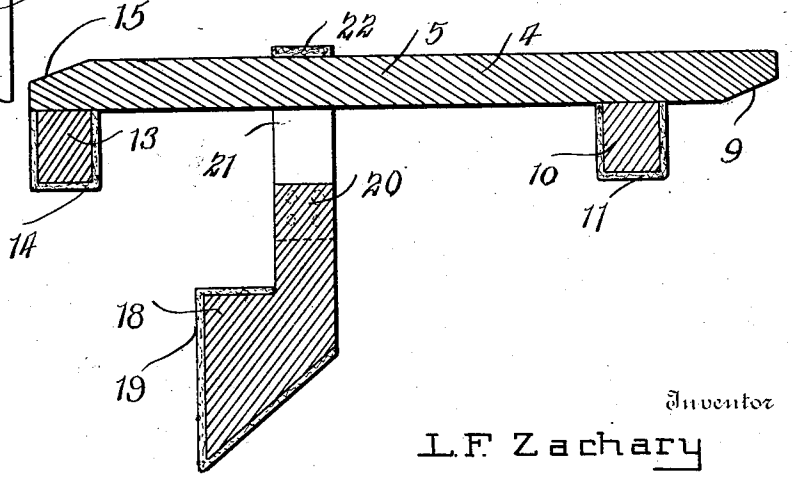


Fig. 3.



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UNITED STATES PATENT OFFICE

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WINDOW OPENER

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This invention relates to a window opener and one object of the invention is to provide a device of this character by means of which either an upper or a lower sash may be easily moved in an opening direction. It often happens that a window sash will be purposely fitted very tightly in its frame or becomes swollen during damp weather and cannot be readily opened but by employing a device such as illustrated in the accompanying drawings either an upper or a lower sash may be easily moved in an opening direction.

Another object of the invention is to so form the device that a window sash may be opened without danger of breaking a glass or marring the sash or adjacent portions of a window frame.

Another object of the invention is to permit the device to accommodate itself to window sashes of different sizes and thereby allow it to be employed to open either a large or a small window sash.

The invention is illustrated in the accompanying drawings, wherein

Figure 1 is a perspective view showing two of the devices in position to force a lower window sash upwardly in an opening direction;

Fig. 2 is a fragmentary sectional view through adjacent portions of upper and lower sashes showing one of the devices in Fig. 1 applied to permit an upper sash to be moved downwardly in an opening direction, and

Fig. 3 is a longitudinal sectional view through the window opener shown in Fig. 2.

In Fig. 1, two of the improved window openers have been shown in position to raise a lower sash which is indicated in general by the numeral 1 and in Fig. 2 one of the devices employed to open a lower sash is shown in position to move an upper sash 2 downwardly in an opening direction. The two window opening devices, which have been shown in Fig. 1 and are indicated in general by the numerals 3 and 4, are in some respects similar in construction and each includes a bar 5 which may be formed of wood, metal or any other suitable material and has one end portion reduced in width to provide a handle 6 which may be easily grasped. The other end of the bar may be tapered transversely but is formed with a blunt end so that it may be received in a finger recess or socket 7 formed in the lower cross bar 8 of a lower window sash. It should also be noted that this end of the bar is provided with a beveled surface 9 at the end of its under surface so that this tapered end of the bar will not become wedged in the finger recess or socket of the sash when the device is in use and prevent the sash from being moved upwardly the desired distance. A fulcrum block 10 which is of the same width as the bar extends downwardly from its under surface in spaced relation to the beveled surface 9 and is covered with felt or a similar soft material 11 which will serve to prevent the sill 12 of the window frame being marred when the device is in use.

When it is desired to pry a lower sash upwardly which fits very tightly in a window frame or has become stuck by swelling during damp weather, the two devices are applied as shown in Fig. 1 and each grasped by its handle portion. Downward pressure is then applied to the handle portions of the two devices and as they rock upon their fulcrums the forward end portions which are engaged in the finger recesses of the lower sash will be moved upwardly and serve to force the window sash upwardly in an opening direction. After the window sash has been moved upwardly a sufficient distance to permit the hands to be engaged beneath the lower cross bar 8, the devices need no longer be used as a good hold can then be obtained upon the sash and sufficient force exerted to move it upwardly. If, however, it is found that it is still very difficult to raise the sash, the forward end portions of the two devices can be engaged beneath the lower cross bar and pressure again applied to force the sash upwardly. If the lower sash is only provided with one finger recess or socket and this located intermediate its width, only one of the devices will be used. By employing the two devices the two side portions of the sash may be moved upwardly at the same time and there will be no danger of canting the sash in its

frame and causing it to be more firmly wedged in place.

When it is desired to move an upper sash downwardly, the opener 3 is discarded and the opener 4 employed. This opener has its end portion 6 provided with a depending block 13 covered with felt or the like 14 and in opposed relation to the block 13 is formed a beveled face 15 which prevents danger of the end of the bar contacting with the glass of the upper sash and breaking the same. The block 13 bears against the lower cross bar 16 of the upper sash when the device is employed to lower the upper sash and in order to engage the upper cross bar 17 of the lower sash, there has been provided a jaw 18 which is also preferably formed of wood and covered by a protecting strip of felt or the like 19. This jaw is disposed beneath the bar and is provided with an upstanding shank 20 to the opposed side faces of which are secured the depending arms or end portions 21 of a supporting strap or yoke 22. The yoke or strap will, therefore, serve to connect the jaw with the bar and since it fits loosely about the bar it will permit the yoke to be slid longitudinally upon the bar and also permit the bar and jaw to have pivotal movement with respect to each other. By this arrangement the device may be applied to the window, as shown in Fig. 2, with the block 13 resting upon the lower cross bar of the upper sash and the jaw then slid longitudinally of the bar into position to engage beneath the upper cross bar of the lower sash. The jaw is held in engagement with the cross bar 17 with one hand and the end portion of the bar carrying the fulcrum block 10 is grasped with the other hand and upward pressure applied so that the bar will rock upon the yoke or strap and thereby cause its end portion carrying the block 13 to be forced downwardly. Therefore, pressure will be applied to the lower cross bar 16 which will cause the upper sash to be moved downwardly in an opening direction. When employed to open an upper sash, the device may be applied at the transverse center of the upper sash or alternately applied adjacent opposite sides of the sash in order to force the sash downwardly without danger of wrenching the lower cross bar loose from the side bars of the upper sash or causing the upper sash to be tilted transversely and more firmly jammed in the window frame. It will thus be seen that the device, indicated in general by the numeral 4, may be employed to open either an upper or a lower window sash.

Having thus described the invention, I claim:

A window opener comprising a bar substantially rectangular in cross section and having its upper face at one end thereof inclined downwardly to present a beveled surface, a block depending from and rigidly secured to the lower face of the bar immediately below said beveled surface, said block being adapted to engage the upper face of the lower cross bar of an upper window sash, a substantially triangular shaped jaw one face of which is adapted to engage beneath the upper cross bar of a companion window sash and another face thereof against the pane of said companion window sash, said jaw being provided with a reduced upstanding shank disposed at right angles to the cross bar engaging face, and a U-shaped yoke straddling said bar and having its arms extended downwardly and rigidly secured to the shank of said jaw, the depending block and faces of the jaw being covered with cushioning material.

In testimony whereof I affix my signature.

LUCIOUS F. ZACHARY. [L. S.]