March 18, 1924. 1,487,100

H. C. HIGHMILLER

WINDOW SCAFFOLD

Filed June 13, 1923 2 Sheets-Sheet 1

Fig. 1.

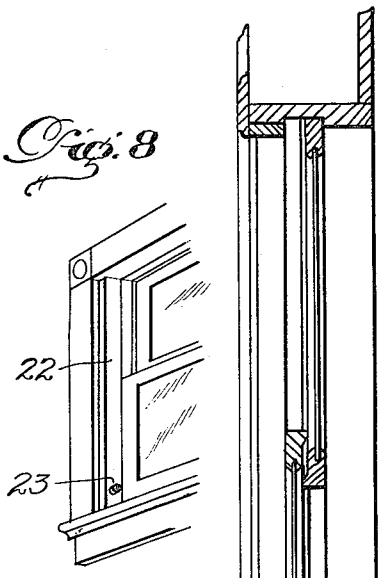


Fig. 3.

Fig. 4.

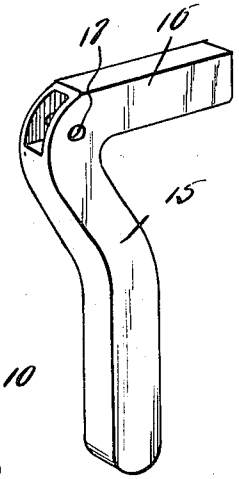
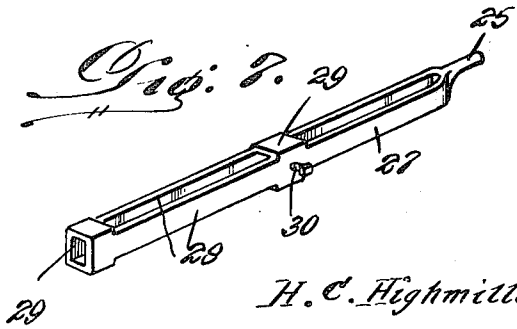


Fig. 2.



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WINDOW SCAFFOLD

Filed June 13, 1923 2 Sheets-Sheet 2

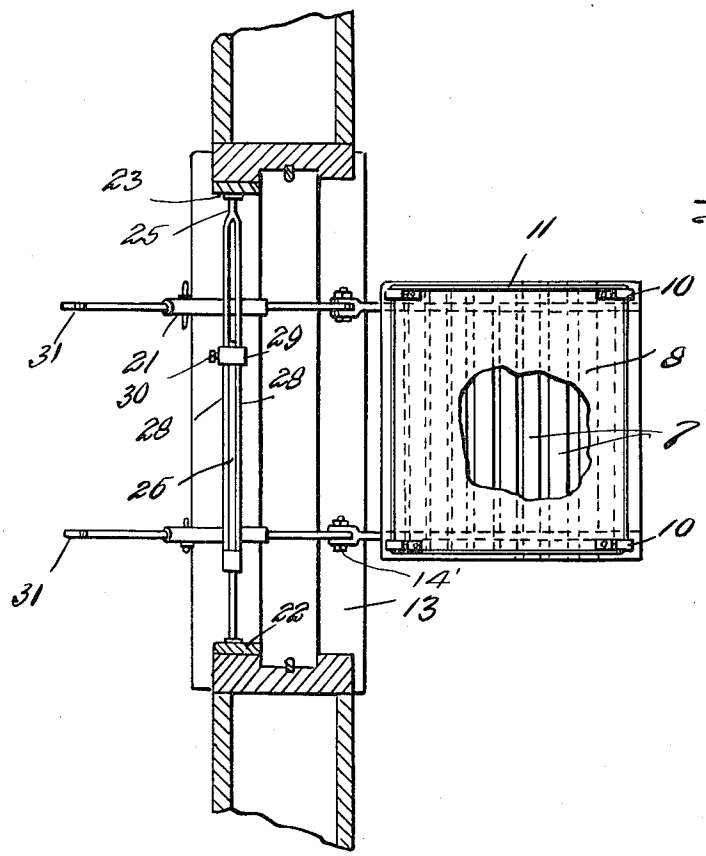


Fig. 2.

Fig. 3.

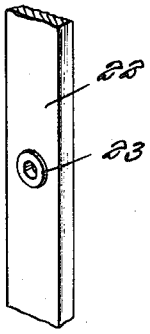


Fig. 5.

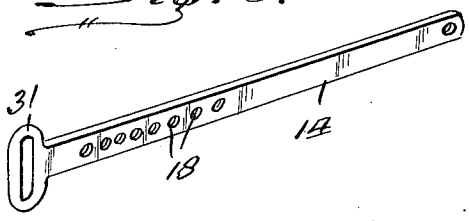
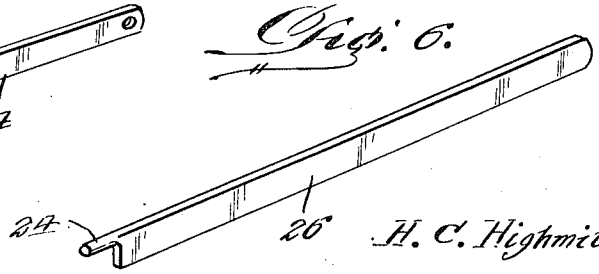


Fig. 6.



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Patented Mar. 18, 1924. 1,487,100

UNITED STATES PATENT OFFICE.

HARLEY C. HIGHMILLER, OF SPRINGFIELD, OHIO.

WINDOW SCAFFOLD.

Application filed June 13, 1923. Serial No. 645,052.

To all whom it may concern:

Be it known that I, HARLEY C. HIGHMILLER, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Window Scaffolds, of which the following is a specification.

This invention relates to certain new and useful improvements in window scaffolds, particularly useful as a support for persons engaging in cleaning the outer surfaces of window panes, and analogous uses.

The primary object of the invention is to generally simplify and improve devices of the above kind.

Another object of the invention is to provide a simple and durable form of bracket construction for effectively supporting a platform exteriorly of a window casing, and wherein provision is made for adjusting the bracket to suit window frames of different widths.

A still further object of the invention is to provide a supporting bracket for the platforms of window scaffolds including a novel clamp construction, and simple and efficient means for engaging the sides of the window frame above the clamping members of the bracket to positively prevent disengagement of the latter from the window frame.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination, and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate similar parts in the several views, and wherein:

Figure 1 is a vertical sectional view through a window construction, and showing a window scaffold in side elevation applied thereto, constructed in accordance with the present invention.

Figure 2 is a horizontal sectional view taken through the said frame above the scaffold shown in Figure 1, to show the scaffold in top plan, and partly broken away.

Figure 3 is a fragmentary perspective view of the strips attached to the sides of the window frame.

Figure 4 is a perspective view showing one of the inner clamping members of the bracket.

Figure 5 is a perspective view of one of the bracket arms upon which the inner clamping members are slidably disposed.

Figure 6 shows one member of the retaining means for the bracket, and

Figure 7 is a view similar to Figure 6 of another member of the retaining means for the bracket.

Figure 8 is a perspective view showing one of the strips in its position of use.

Referring more in detail to the several views, the present invention embodies a bracket construction composed of a pair of spaced parallel arms 5 adapted to be disposed in a horizontal position and suitably fastened as at 6 to the underside of a slatted platform 7, which may be provided with a suitable fabric covering 8. Extending outwardly from and hinged as at 9 to the corners of the platform 7 are upright members 10, disposed in pairs foldable toward each other in the direction of the arrows shown in Figure 1 and flexibly connected at their upper ends by means of a rope 11 or the like threaded therethrough, thus forming a cage or guard for preventing the operator from accidentally stepping off of the platform.

The arms 5 have suitable clamping members or jaws 12, rigid with the inner ends thereof, and of a form to properly engage the outer member 13 of the window sill and to rest thereon, and pivoted to the inner ends of the arms 5 are further arms 14 having clamping jaws 15 slidable thereon. The jaws 15 embody depending members adapted to embrace the inner surface of the window frame adjacent the sill thereof, and upper horizontal members 16, through which the arms 14 loosely project, the upper portions 16 of the clamping members 15 being provided with transverse openings 17, and the arms 14 being provided with a longitudinal series of spaced openings 18 adapted to be selectively alined with the openings 17, so that a pin 19 may be passed therethrough

for effectively holding the clamping members 15 and 12 into engagement with the window.

To guard against loss of the pin 19, it may be attached to its clamping jaw, by means of a flexible member or chain 20, and to guard against marring of the window frame, the jaws 15 may be provided with a fabric or other protective covering as shown in Figure 1 at 21.

A pair of strips 22 are suitably attached to the inner faces of the opposite side members of the window frame extending from the bottom to the top thereof and are provided with suitable sockets 23 for the reception of the reduced ends 24 and 25, respectively, of the extensible retaining rod sections 26 and 27. When the reduced ends of this retaining rod are engaged in the sockets 23, said retaining rod is disposed as shown in Figure 1, in contact with the upper edges of the members 16 of the box 15, so as to effectively maintain the clamping members against upward displacement. This extensible retaining rod preferably embodies the section 26 of flat form, and the section 27 bifurcated for a major portion of its length to provide a pair of spaced legs 28 between which the section 26 is slidably disposed, the legs 28 being suitably connected at a plurality of points as at 29, to prevent tilting of the section 26 vertically. The sections are held against relative displacement in any desired adjusted relation by means of a set screw 30, threaded through one of the legs 28 and having its inner end disposed to engage the adjacent side of the section 26.

As clearly shown in Figure 1 the inner ends of the arms 5 are enlarged and bifurcated as indicated at 5′ to receive the outer ends of the arms 14 which are pivotally connected in said bifurcated portions 5′ by means of pins 14′. A lip 12′ extends from the jaws 12 under the levers 14 and pivotally connected with the arms 5 for limiting the movements of said arms 14 and the pivot pins 14′.

In use, the device is disposed as shown in Figure 1, with the exception that the clamping members 15 are spaced as far as possible away from the clamping members 12 until the scaffold is properly positioned. The clamping box 15 is then slid outward into engagement with the window frame, whereupon the pins 19 are inserted. The extensible retaining rod consisting of the sections 26 and 27 is then positioned above the bracket arms, and after the upright members 10 are swung to their full line position as shown in Figure 1, the bracket member may be safely employed. For convenience in carrying the device from place to place, the inner ends of the arms 14 may be provided with hand-holds 31.

From the foregoing description, it is believed that the construction and manner of use as well as the advantages of the present invention will be readily understood and appreciated by those skilled in the art.

Minor changes may be made therein, without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a window scaffold, a pair of spaced platform supporting arms having cooperating clamping members upon the inner ends thereof for attaching the device to the sill of the window frame, socketed members attachable to the sides of the window frame, and an extensible retaining bar having its ends formed to engage the sockets of said socketed members for being retained in a position extending across and resting upon the upper edges of said platform supporting bars for maintaining the clamping members against upward displacement from the window sill.

2. In a window scaffold, a pair of spaced platform supporting arms having cooperating clamping members upon the inner ends thereof for attaching the device to the sill of the window frame, socketed members attachable to the sides of the window frame, and an extensible retaining bar having its ends formed to engage the sockets of said socketed members for being retained in a position extending across and resting upon the upper edges of said platform supporting bars for maintaining the clamping members against upward displacement from the window sill, said platform supporting bars embodying inner bar members upon which the inner ones of the clamping members are slidably and adjustably mounted.

3. In a window scaffold, outer parallel platform supporting bars having clamping jaws fixed to the inner ends thereof and adapted to engage the outer member of a window sill and to rest thereon, parallel inner bars pivoted to the inner ends of the first named bars limited in their pivotal movements and having clamping members slidable and adjustable longitudinally thereof, said last named clamping members being adapted to engage the inner portion of the window sill, and means engageable to the window frame and extending transversely thereof and engaging the upper portions of said parallel inner bars for retaining the last named clamping members against upward displacement from the window sill.

4. In a window scaffold, outer parallel platform supporting bars having clamping jaws fixed to the inner ends thereof and adapted to engage the outer member of a window sill and to rest thereon, parallel inner bars pivoted to the inner ends of the first named bars and having clamping mem-

bers slidable and adjustable longitudinally thereof, said last named clamping members being adapted to engage the inner portion of the window sill, and means engageable to the window frame for retaining the last named clamping members against upward displacement from the window sill, said last named means embodying a rod adapted to be disposed transversely of and above the last named clamping members and provided with means for fixing the ends to the sides of the window frame.

In testimony whereof I affix my signature.

HARLEY C. HIGHMILLER.