June 12, 1923. 1,458,744

J. C. BREWSTER

WINDOW WASHER PLATFORM

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Fig. 1.

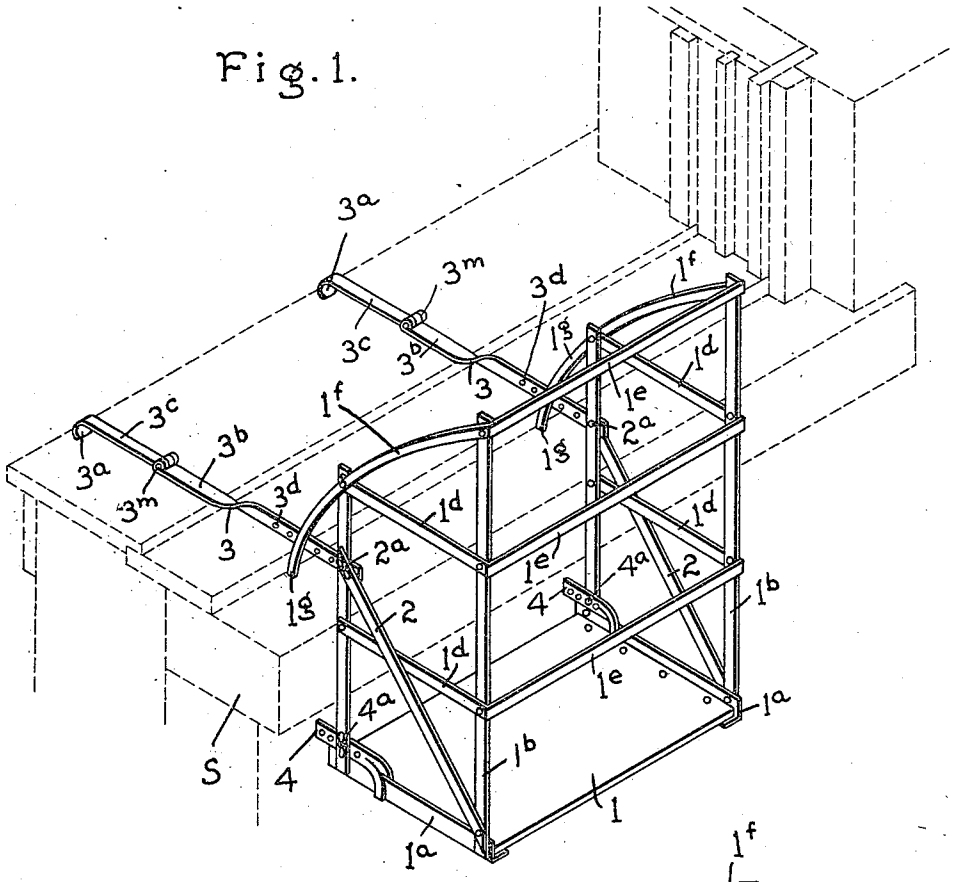
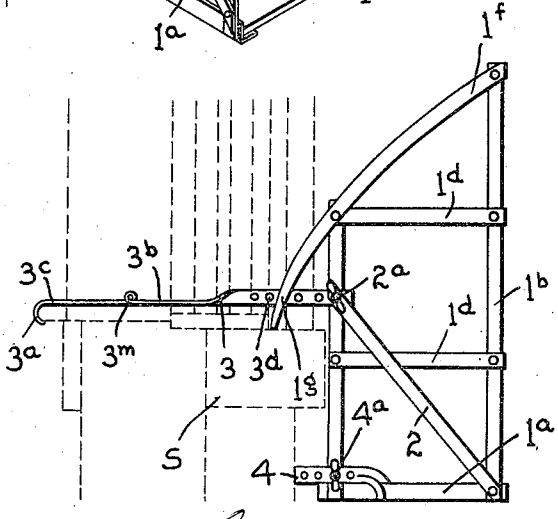


Fig. 2.



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Fig.3.

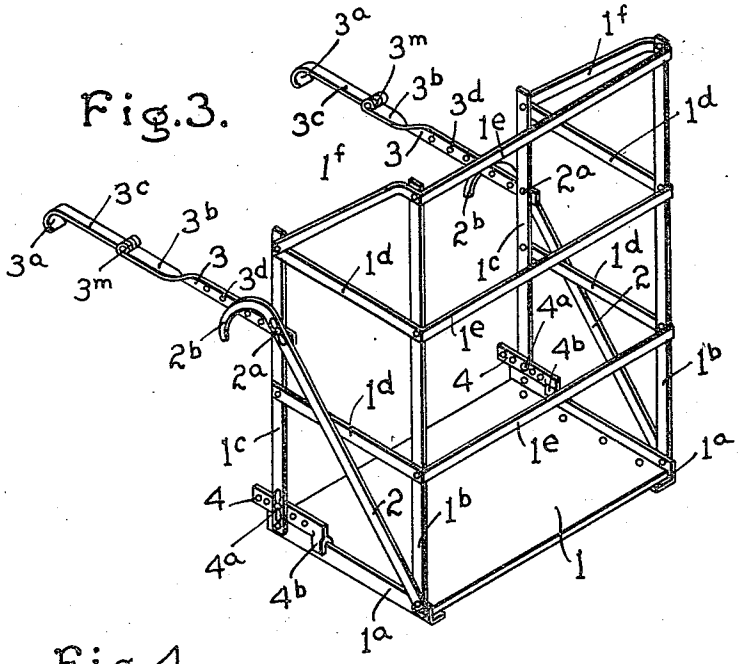
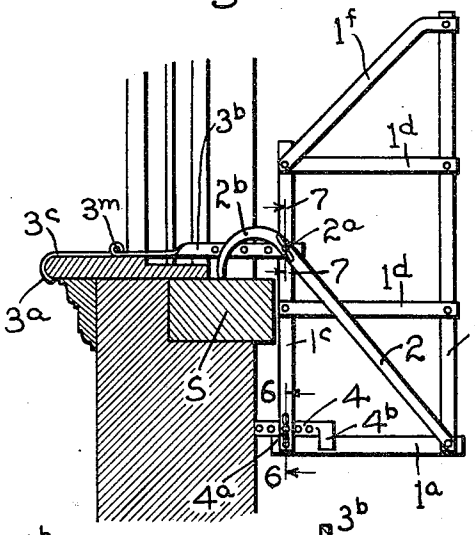


Fig.4.



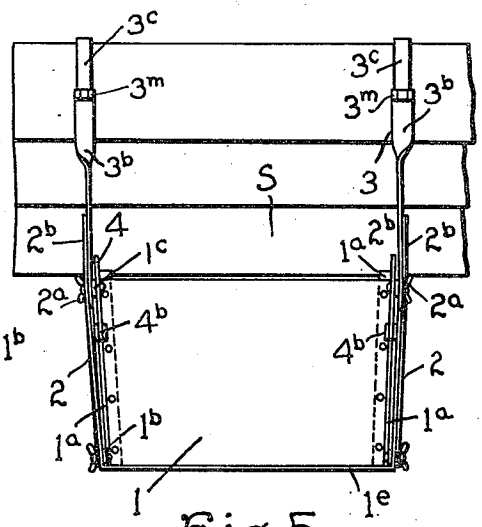


Fig.5.

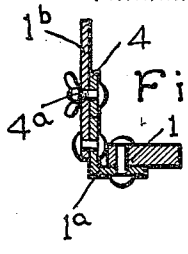


Fig.6.

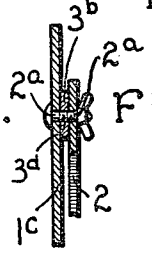


Fig.7.

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Patented June 12, 1923. 1,458,744

UNITED STATES PATENT OFFICE.

JAMES C. BREWSTER, OF FORT MADISON, IOWA.

WINDOW-WASHER PLATFORM.

Application filed March 8, 1922. Serial No. 542,100.

To all whom it may concern:

Be it known that I, JAMES C. BREWSTER, a citizen of the United States, residing at Fort Madison, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Window-Washer Platforms; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is a novel portable apparatus especially designed for use by window washers, to enable them to safely and comfortably wash windows from the outside. The invention consists of a novel portable frame or cage adapted to be placed outside of a window and provided with means operable for throwing the pressure or weight when in use downward upon the window sill and preventing the weight prying the apparatus outward against the edge of the sill. The apparatus is provided with novel means for securely supporting and suspending it on and from the lower sill of the window frame, the supporting devices being readily adjustable to suit different thicknesses of walls, and various widths and sizes of window sills.

I will explain the invention with reference to the accompanying drawings which illustrate one practical form of apparatus embodying the same, and in the claims are summarized the essentials of the invention, the novel features of construction and novel combinations of parts for which protection is desired.

In the drawings:

Fig. 1 is a perspective view of the apparatus as applied to a window in position for use the part of the window being indicated in dotted lines.

Fig. 2 is a side view of such apparatus.

Fig. 3 is a perspective view of a slight modification of the apparatus as applied to a window, in position for use.

Fig. 4 is a side view of the apparatus shown in Fig. 3 applied to a window.

Fig. 5 is a top plan view of Fig. 4.

Fig. 6 is a section on the line 6—6, Fig. 4.

Fig. 7 is a section on the line 7—7, Fig. 4.

The apparatus includes a frame or cage in which the operator can stand, and which may be of any suitable construction. As shown, it comprises a bottom or platform and ends, and one side. In the particular example shown the bottom 1 is supported on angle irons 1^a at each end, and to the ends of irons 1^a are attached uprights 1^b and 1^c. These adjacent end uprights 1^b and 1^c are connected by transverse bars 1^d. The outer uprights 1^b are connected by transverse bars 1^e. Preferably the outer uprights 1^b extend above the inner uprights 1^c, and are connected therewith by inclined top bars 1^f.

As shown, to the lower ends of the outer bars 1^b are connected brace bars 2, which extend inwardly and upwardly and are connected to the bars 1^c, adjacent the upper end of the latter, by any suitable means, preferably by bolts 2^a.

As shown, hook bars 3 are preferably connected to bars 1^c near the upper ends, and are adapted to project across the window sill, the inner ends of bars 3 being bent downwardly forming hooks 3^a which engage the inner edge of the window frame, as shown in Figs. 1 to 4.

Preferably as shown in Figs. 1 and 2 the lower portions of the bars 1^f project beyond the uprights 1^c and are curved downwardly forming hooks or hangers 1^g the lower ends of which depend below the connections of the hook bars 3 to the uprights 1^c and are adapted to rest upon the top of the outer portion S of the window sill as shown in Figs. 1 and 2 and support the weight of the frame thereupon. As shown in Figs. 3 to 5 instead of having the top bars 1^f extended to form the hooks 1^g, the upper ends of the brace bars 2 are extended beyond the thumb bolts 2^a and are curved downwardly to form hooks 2^b projecting beyond the uprights 1^c and the ends of these hooks 2^b are adapted to rest upon the top of the outer portion S of the window sill as indicated in Figs. 3 and 4 and suspend the apparatus thereupon.

The whole frame or cage is made of metal and the parts securely riveted or bolted together; but as stated the frame may be of any desired construction.

Preferably the hook bars 3 are made in two sections, the hook section 3^c being hinged as at 3^m to the outer perforated section 3^b, in any suitable manner. This enables the hook bars 3 to be adjusted over any raised portions on the window sill such as weather stripping, or other parts which might be formed on or attached to the sill of the window frame. These hinged joints permit the hooks 3^a to be readily depressed so as to engage the inner edge of the sill without disengaging the hooks 2^b from the sill S,

which hooks 2^b normally support the frame in operative position upon the window sill as shown in Figs. 1 to 5.

Preferably the outer sections 3^b are connected to the uprights 1^c by the same bolts 2^a that connect the brace bars 2 thereto; but if desired the connections might be independent. Preferably, also the sections 3^b are adjustably connected to the uprights 1^c so that the hook bars 3 can be adjusted to suit the width of the window sill. A convenient mode of adjustment is to provide the outer sections 3^b with holes 3^d any one of which may be engaged with the bolt 2^a; so that when the hooks 3^a are engaged with the inner edge of the window frame sill, the uprights 1^c will be held closely against the outer edge of the window sill S, as in Figs. 1–4.

Preferably attached to the lower end of the uprights 1^c and side bars 1^a, are inwardly projecting bars 4, which are preferably made adjustable. The inner ends of these bars 4 are adapted to contact with the wall of the building below the sill S as shown and will prevent the bars 1^c fulcruming or rocking on the outer edge of the sill S, and obviates any tendency of the frame, or weight of the operator standing on the platform 1, to pull the points of the hooks 2^b outward. The bars 4 may be made adjustable in any suitable way. As shown, each bar 4 has perforations which are engaged by a bolt 4^a transfixing an opening in the adjacent upright 1^c; but they may be made otherwise adjustable, in any desired manner. Preferably the outer end of each bar 4 is bifurcated as at 4^b, and straddles the upper edge of the bar 1^a and prevents the bar 4 twisting laterally on the bolt 4^a.

In using the device, the frame or cage is placed outside the window and lowered until the hooks 1^g or 2^b, rest on sill S, and the hooks 3^a are engaged with the inner edge of the window frame sill S as shown in Figs. 1–4. The parts should be properly adjusted to fit the location before the frame is placed in position outside the window. When the frame is properly adjusted the platform is substantially suspended by hooks 1^g or 2^b from the sill S, the outer edge of the platform 1 being substantially supported by the brace bars 2, and the inner edge of the platform being supported by the uprights 1^c connected to brace bars 2 by bolts 2^a. Any outward sliding movement, or tilting of the frame, is prevented by the hooks 3^a; and the frame cannot tilt forward or pry outward even if the operator should lean outward against the top side bar 1^e of the frame.

The strain is not upon the hooks 3^a, but upon the hooks 1^g or 2^b which are made amply strong to support all the weight which may be placed on the apparatus. There is no prying upward upon the hook bars 3 as the hooks 1^g or 2^b prevent bars 3 binding or rocking on the window sill, and the hook bars therefore merely have to hold the upper portion of the frame in position, and keep the hooks 1^g or 2^b from slipping outward on sill S; and hook bars 3 do not have to support the weight of the frame or operator, which weight is carried by the hooks.

By the means described, the platform or frame is held safely and securely in position, with the main points of contact and pressure on the upper side of the outer sills. The hook bars 3 can be readily adjusted to suit any width of window sill. The bars 4 can be adjusted to engage the side wall of the house below the sill and keep the lower side of the frame, or platform 1, from moving inward toward the wall which would bend the bars 1^c against the sill S, and draw the hooks 1^g or 2^b outward.

In both of the described constructions, the platform is safely and strongly constructed, and is supported at ends and outer side and the operator can stand and move thereon with absolute safety.

The apparatus is shown as made of metal, but it may be made of any suitable material or combinations of materials; and is susceptible of variations in size and form within the scope of the invention. The simplicity and ability and safety of the apparatus will be readily appreciated by those familiar with this class of apparatus. While the apparatus is particularly adapted for use by window washers, it is obviously adapted for use by other workmen and for other purposes.

I claim:

1. In a window washer apparatus comprising a frame having ends, outer side, and bottom portions, bars connected to the ends of the frame extending beyond the inner edges thereof, and curved to form hooks adapted to rest upon the top of the outer sill of the window; bars adjustably and pivotally connected to the inner sides of the frame adjacent the said hooks adapted to project through the window frame and having hooks on their inner ends adapted to engage the inner edge of the window frame sill; and bars adjustably connected to the lower inner corners of the frame adapted to engage the wall beneath the sill to prevent the frame rocking upon the outer edge of the sill and prying forward the hooks; whereby the apparatus is bodily hung on the sill, and is held in a safe and rigid position with the main points of contact and weight on the outer sill.

2. In combination a frame having ends, outer side and bottom portions, bars connected to the ends of the frame and extending upwardly and inwardly from the outer edge of the bottom thereof toward the inner

edge and top thereof, and projecting beyond the inner edge of the frame, and having their projecting ends curved downwardly adapted to engage the top of the outer sill of the window for hanging the entire apparatus directly thereon; bars adjustably and pivotally connected to the inner edges of the end portions and adapted to project through the window, and hooks on the inner ends of the latter bars adapted to engage the inner edge of the window sill whereby the entire apparatus is held in a safe and rigid position with the main points of contact and weight directly on the outer sill; with bars adjustably connected to the lower inner corners of the frame adapted to engage the walls beneath the sill to prevent the frame rocking against the outer edge of the sill and prying forward the hooks, substantially as described.

3. A window cleaning apparatus comprising a frame having ends, outer side and bottom portions; diagonally disposed bars connected to the ends of the frame and having their inner ends extending beyond the inner side of the frame, the said ends being adapted to directly rest upon and engage the upper side of the outer window sill to support the frame thereon, with the bottom portion thereof below the level of the outer sill; and hook members attached to the frame and adapted to project through the window opening and engage a fixed part of the window frame to prevent the ends of said bars slipping off the sill.

4. In combination with window cleaning apparatus as set forth in claim 3, adjustable means connected to the lower inner corners of the frame and projecting beyond the inner edge thereof to engage the wall below the sill and prevent the frame prying outwardly.

5. A window cleaning apparatus comprising a frame having ends, outer side, and bottom portions; bars diagonally connected to the ends of the frame, and having their inner ends extended beyond the inner edge of the frame, the extended ends thereof being curved downwardly and adapted to directly engage the upper side of the outer window sill to suspend the entire apparatus directly therefrom, so that the bottom portion of the frame is disposed at a lower level than the window sill, and hook members pivotally attached to the frame adapted to project through the window and engage the window frame, substantially as described.

6. A window cleaning apparatus as set forth in claim 2, means adjustably connected to the lower inner corners of the frame and projecting beyond the inner edge thereof, to engage the wall below the sill and prevent the frame prying outwardly.

7. In a window washer apparatus comprising a frame having ends, outer side, and bottom portions; bars diagonally connected to the ends of the frame and having their inner ends extending beyond the inner edge of the frame and curved downwardly and adapted to rest upon the top of the outer sill of the window; bars adjustably and pivotally connected to the inner edges of the frame adjacent the said hooks adapted to project through the window frame, and having hooks on their inner ends adapted to engage the inner edge of the window frame sill; and bars adjustably connected to the lower inner corners of the frame adapted to engage the wall beneath the sill to prevent the frame rocking upon the outer edge of the sill and prying forward the hooks; whereby the apparatus is bodily hung on the sill with the bottom portion thereof below the level of the sill and the apparatus is held in a safe and rigid position with the main points of contact and weight on the outer sill.

In testimony that I claim the foregoing as my own, I affix my signature.

JAMES C. BREWSTER.