

Aug. 29, 1939.

C. HINES
WINDOW CLEANER'S GUARD

2,171,446

Filed Aug. 6, 1937

2 Sheets-Sheet 1

Fig. 1.

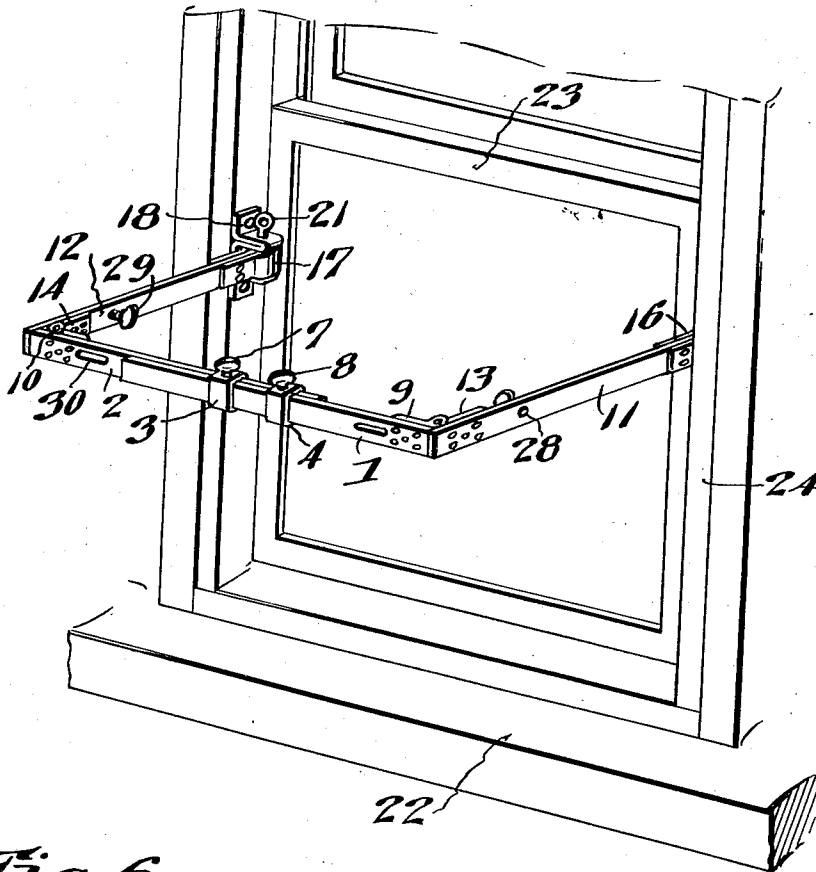
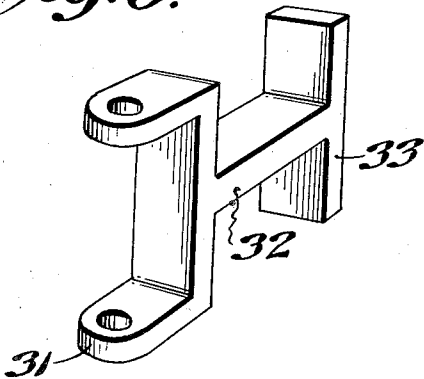


Fig. 6.



Inventor

Charles Hines
By *Lloyd W. Patch*
Attorney

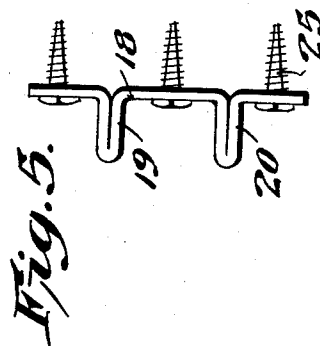
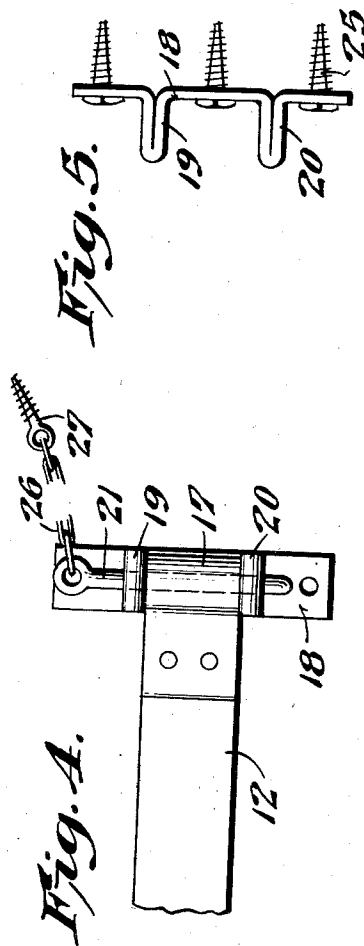
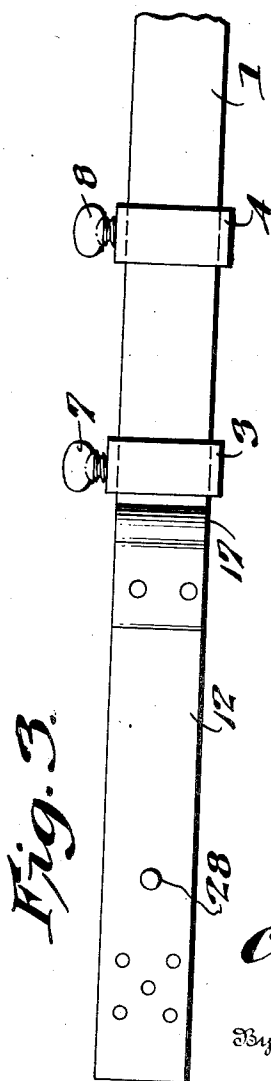
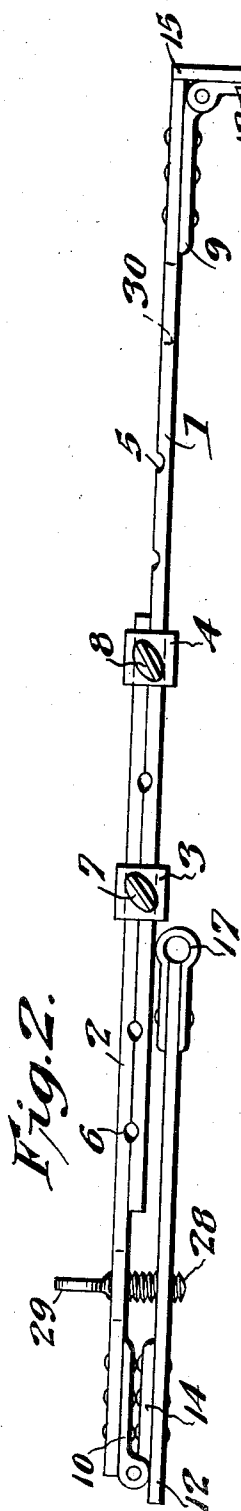
Aug. 29, 1939.

C. HINES
WINDOW CLEANER'S GUARD

2,171,446

Filed Aug. 6, 1937

2 Sheets-Sheet 2



Inventor
Charles Hines
By *Lloyd W. Patch*
Attorney

UNITED STATES PATENT OFFICE

2,171,446

WINDOW CLEANER'S GUARD

Charles Hines, New York, N. Y.

Application August 6, 1937, Serial No. 157,772

4 Claims. (Cl. 20—71)

My invention relates to improvements in window cleaners' guards, and particularly to a device of this character intended and adapted for use by a window cleaner working from or standing upon the outer sill of the window while washing or cleaning the outer side of a window.

An object of this invention is to provide a guard device which is readily fitted in place for use, which can be removed with equal facility, and which is adaptable to be collapsed to be carried or otherwise transported from one job to another.

Another object and purpose is to so construct the guard that a more or less rigid and unyielding support is provided for the window washer, thus permitting entire freedom of movement of the user, and at the same time interposing a guard rail structure entirely around the worker so that the danger or likelihood of falling or slipping from the window sill or ledge will be reduced to a minimum.

Another purpose of my invention is to provide a device of this character which has means for mounting and detachably holding the guard structure in place, which means is of such character as to be readily installed upon window frames or adjacent wall structure of a building already erected, and which can be built into or incorporated or anchored in the wall structure or other appropriate portions of a building being erected.

Still another object is to so construct and associate and arrange the parts that this device can be readily and cheaply manufactured, to thus be sold and distributed at a relatively low price, and which will prove substantial and durable in use and will not be likely to become broken or damaged while in use or while being transported.

With the above and other objects in view, some of which will appear to those skilled in the art, and others of which are inherent in the construction and association and use of the parts, my invention includes certain novel features of construction and combinations and arrangements and associations of parts, which will be hereinafter set forth in connection with the drawings and then pointed out in the claims.

In the drawings:

Figure 1 is a fragmentary view in perspective of a window structure showing my invention applied thereto.

Fig. 2 is an enlarged view in plan to better illustrate the construction of the device.

Fig. 3 is a fragmentary view in elevation of parts as illustrated in Fig. 2.

Fig. 4 is a view in front elevation of one of the mounting brackets.

Fig. 5 is a side elevational view of the mounting bracket.

Fig. 6 is a view in perspective illustrating a modified form of mounting bracket.

Heretofore, it has been a practice to mount hooks or other suitable anchor means at the sides of a window, where it is desired that a window cleaner or washer stand on the outer sill or ledge of the window in washing the outside of the glass; and, then that the window washer has a belt provided with side extension straps adapted to have their ends attached to the hooks or anchor means. With such safety belts, it is not possible for the window washer or cleaner to move freely, and except when the individual is directly in the middle, only one side strap will serve to give support. Other types of belts or protecting devices have been employed, but these do not allow full freedom of movement of the window washer or cleaner and at the same time give the safety and assurance of a rigid guard rail securely held against outward movement or side swinging, and also against displacement or movement upwardly or downwardly, as with applicant's improved structure.

Bars 1 and 2, which can be made of flat iron or bar stock, or of other suitable material, are provided to be disposed in overlapped relation at their adjacent ends, and clamp clips 3 and 4 are fitted around these overlapping ends to hold the ends against lateral displacement and to yet permit sliding or adjustment movement endwise.

The bars 1 and 2 are provided with registering notches or openings or orifices 5 and 6 on their adjacent faces, so that the clamp screws 7 and 8 turned into threaded openings in the clamp clips 3 and 4 will fit into these registering openings to positively lock and hold the bar members 1 and 2 against endwise shifting or sliding movement. At the same time, the clamp clips 3 and 4 retain these bar portions 1 and 2 against swinging or other movement, and in effect the two bar members 1 and 2 are secured and locked together to form a substantially continuous and rigid bar portion.

At their outer ends, these bars members 1 and 2 have hinge portions 9 and 10, which hinge portions may be made integral with or may be secured upon or otherwise associated with the bar members 1 and 2. Side bars 11 and 12 are provided with hinge portions 13 and 14 pivotally connected with the hinge portions 9 and 10 re-

spectively, and these side bars 11 and 12 have extensions 15 which bear and abut against the ends of the bar members 1 and 2, or against other suitable portions, to thus hold the side bars 11 and 12 against excessive outward swinging movement, and to substantially rigidly associate the bar members 1 and 2 and these side bars 11 and 12 into a U-shaped form, when the side bars are swung to the proper relation.

At their ends, the side bars 11 and 12 are provided with loops 16 and 17 adapted to secure and mount the guard structure in place and to permit ready removal thereof. Mounting brackets 18 are provided to be secured upon the window frame, or other adjacent wall or structural portions, at opposite sides of the window opening, as is best shown in Figure 1, and these mounting brackets have the bearing ears 19 and 20 thereof spaced sufficiently to receive the mounting loops 16 and 17 at the ends of the side bars 11 and 12. The bearing ears 19 and 20 are provided with openings to register with the openings of the mounting loops 16 and 17, and pins 21 are provided to be fitted through these registering openings to secure and hold the side bars 11 and 12 to extend outwardly and in a substantially horizontal plane at each side of the window opening, to thus dispose the bar members 1 and 2 transversely across the window opening on the outer side and at the outer ends of the side bars 11 and 12 to thus give sufficient room and clearance for a window washer or cleaner to stand or sit or otherwise work upon the window ledge or sill 22, while cleaning the outside of the window glass, as represented at 23. As has been stated, the mounting brackets 18 can be secured upon the window frame structure 24, or can be affixed to or be connected or anchored in communication with the wall structure, and in the present instance I have shown these mounting brackets 18 as made up of strap or bar metal bent and shaped into the desired form and then provided with openings to receive screws or other fastenings 25 by which the mounting brackets are secured in place. In the disclosure in Fig. 1 I have illustrated the mounting brackets 18 as secured on lateral faces or portions of the window frame structure or casing 24, but it will be obvious that these mounting brackets can be secured on outer faces of the frame or other structure, and that the guard bars will be disposed and will be held in the desired position for use. As the pins 21 are loose and can be freely removed from the registering openings of the loops 16 and 17 and of the bearing ears 19 and 20, it is perhaps desirable that a chain 26, or other suitable flexible member, be attached to each pin 22 and be secured at its free end to a screw eye or other anchor fastening, as indicated at 27.

As has been stated, the device of my invention is freely and readily portable, and when the pins 21 are withdrawn and the assembly made up of bar members 1 and 2 and side bars 11 and 12, with their associated parts, is removed from the position for use, the side bar arms 11 and 12 can be folded in to lie alongside of and closely adjacent to the bar members 1 and 2. The side bars 11 and 12 have screw or pin members 28 rotatably received in the openings adjacent to the hinge portions 13 and 14, and these screw or pin members are provided with wing heads 29. The bar members 1 and 2 have slots 30 opening therethrough in position

to receive the screw or pin members 28, and as the wing head portions 29 are turned to the position shown at the left hand in Fig. 2, the side bars 11 and 12 will be held against displacement from the folded or collapsed position, to thus facilitate carrying or transportation of the guard structure.

Obviously, the mounting brackets must be provided on opposite sides of the window opening at each window where this device is to be mounted or used, and in Fig. 6 I have illustrated a modified form of mounting bracket that might be employed to advantage where a new building is being erected. With this construction, the mounting bracket 31 is made up as a forging, casting, or the like, and is provided with an inwardly extending shaft 32 having an anchor head 33 thereon. This mounting bracket adapts itself well to being built in a masonry wall, cast into a concrete wall, or being otherwise secured or anchored in place, and it will be understood that various other forms and constructions of mounting brackets and of securing means therefor may be employed.

From the foregoing it will be seen that I have provided a guard structure for window washers and cleaners, for painters, and for others working on the outside of a window, which is of simple and inexpensive construction to thus be adaptable for construction and sale and use at low cost, which is adjustable to windows of various widths, which is quickly and readily fitted in place, and is removable with equal facility, and which when in use will provide a rigid guard rail or bar structure both laterally and transversely around the window opening above the window sill or ledge in position to positively guard and protect a person working upon or from the window ledge or sill, and yet permit free and unrestrained movement of the person.

While I have herein shown and described only certain specific constructions and arrangements of the parts and have set forth only certain possible embodiments and uses of my invention, it will be appreciated that many changes and variations can be made in the form, construction, and arrangement of the parts, as well in the association and use of the device, without departing from the spirit and scope of my invention.

I claim:

1. A window cleaner's guard structure comprising, a pair of transverse bar members extensively and adjustably connected together, side bars hingedly mounted at the free ends of the bar members and swingable inwardly to lie against the inner side of the bar members, means to detachably connect the free ends of the side bars on opposite sides of a window opening, said side bars being foldable into proximity to the bar members when the guard structure is detached, and means connecting between the transverse and the side bars to hold said side bars in the folded position.

2. A window cleaner's guard comprising, a pair of transverse bar members disposed with their ends in overlapping relation, means adjustably holding together the overlapped ends of the bar members, hinges at the free ends of the bar members, side bars foldably mounted on said hinges and swingable inwardly to lie end inwardly against the transverse bar members, loops at the free ends of said side bars, bracket mounting means on opposite sides of a window engag-

ing said loops, said side bars being foldable to lie adjacent to the bar members when the guard is not in use, and means engaging between the transverse and the side bars to retain the side bars in this folded relation.

3. A window cleaner's guard comprising, a pair of transverse bar members disposed in overlapping relation, clips through which the overlapped ends are slidably received, clamp means carried by said clips to hold the bar members in desired adjusted positions, hinges at the outer ends of said bar members, side bars foldably connected with the bar members through said hinges, loops at the free ends of said side bars, bracket members carried at opposite sides of a window opening provided with portions to receive the loops of the side bars, pins cooperating with said bracket members and the loops of the side bars to detachably connect the side bars with the brackets to dispose the side bars and the bar members to present a substantially U-shaped form extending outwardly in a substantially horizontal plane adjacent to the window opening, said side bars being foldable to lie closely adjacent to the bar members when the guard structure is removed from the position for use, and means connecting between the transverse and the side bars to retain said side bars in the folded relation.

4. A window cleaner's guard comprising, a

pair of transverse bar members disposed in overlapping relation with their outer ends extending, clips through which the overlapped ends are slidably received, clamp means carried by said clips engageable with said bar members to hold adjusted positions thereof, hinges at the outer ends of said transverse bar members, side bars connected with said hinges to be thus swingably mounted at the ends of the transverse bar members and provided with extensions engageable with the ends of said transverse bar members to limit outward swinging movement of the side bars, loops at the free ends of said side bars, bracket members carried at opposite sides of a window opening provided with portions to receive the loops of the side bars, pins fitted through the brackets and the loops of the side bars and thus detachably connecting the side bars with the brackets to extend outwardly substantially horizontally and with the transverse bar members presenting a substantially U-shaped form extending outwardly in a substantially horizontal plane, said side bars being foldable inwardly to lie closely adjacent to the transverse bar members and with their inner ends in opposed relation, and clamp means engageable between the transverse bar members and the side bars to hold and retain said side bars in the folded relation.

CHARLES HINES.