May 8, 1923. 1,454,155

J. A. CROZIER

WINDOW BRACKET

Filed May 26, 1921 2 Sheets-Sheet 1

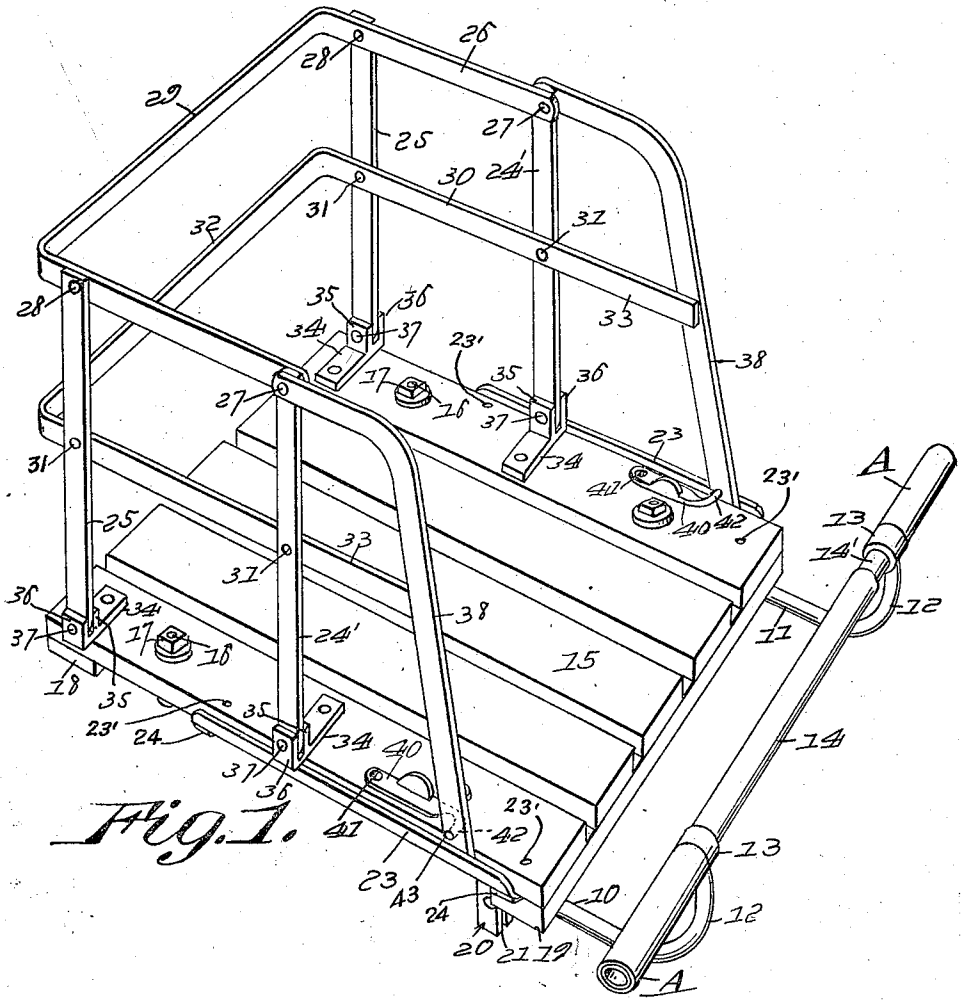


Fig. 1.

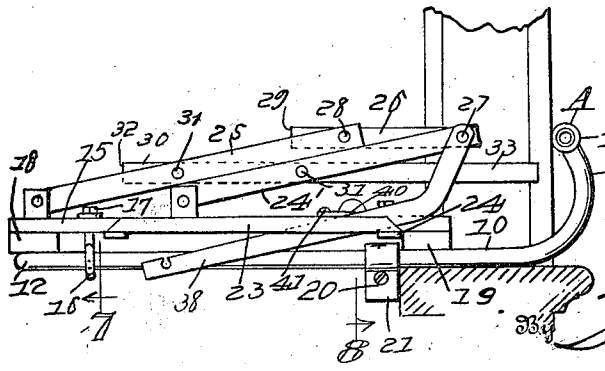


Fig. 2.

Inventor

John A. Crozier

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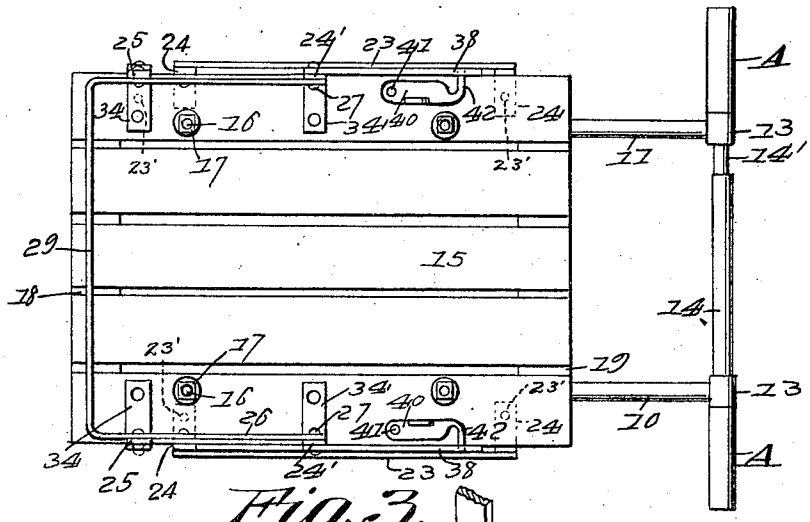


Fig. 3.

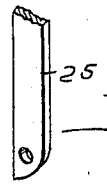


Fig. 5.

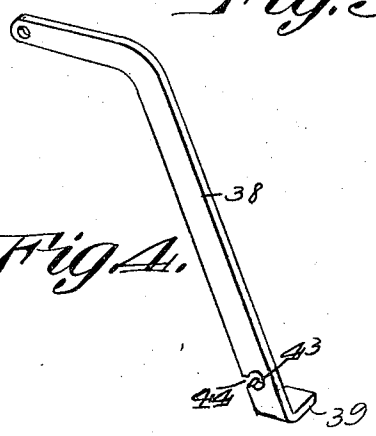


Fig. 4.

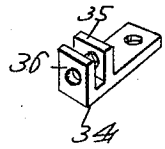


Fig. 6.

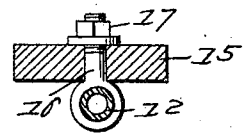


Fig. 7.

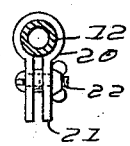


Fig. 8.

Inventor

John A. Crozier,

By Francis Ammeray

Attorney

Patented May 8, 1923. 1,454,155

UNITED STATES PATENT OFFICE.

JOHN A. CROZIER, OF KNOXVILLE, IOWA.

WINDOW BRACKET.

Application filed May 26, 1921. Serial No. 472,737.

To all whom it may concern:

Be it known that I, JOHN A. CROZIER, a citizen of the United States of America, and resident of Knoxville, in the county of Marion and State of Iowa, have invented certain new and useful Improvements in Window Brackets, of which the following is a specification.

This invention relates to window brackets or scaffolding, sometimes termed balconies, the said invention having for its object a provision of a platform which may be removably secured in a window frame to project outwardly therefrom, to be occupied by a window washer or the like, the said invention having novel means for forming a cage or guard to prevent the occupant from being displaced from the platform, means being provided for hingedly connecting the guard to the platform whereby it may be folded or knocked down to occupy comparatively little space.

A still further object of this invention is to produce a window platform of the character indicated, the guard of which can be speedily placed in operative position, the said guard having novel means by which it is held in operative position.

A still further object of this invention is to produce a guard of the character indicated provided with a brace at the inner end which will withstand unusual strain, the frame of the guard being further provided with means by which its movement in one direction is limited, in order that it will present resistance to pressure from within the guard as would result from the weight of a person leaning against it.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a view in perspective of a window bracket embodying the invention;

Figure 2 is a side elevation thereof, with the parts in their folded positions;

Figure 3 is a top plan view of the said window bracket;

Figure 4 a perspective view of one of the braces;

Figure 5 a perspective view of a fragment of one of the standards;

Figure 6 a perspective view of the standard anchor;

Figure 7 a sectional view on the line 7 of Fig. 2; and

Figure 8 is a sectional view on the line 8 of Figure 2.

In these drawings the frame is shown as comprising the side arms 10 and 11 connected by an anchoring rod 14 at their outer ends, the said arms terminating in curved portions such as 12 provided with eyes 13 to receive the anchoring rod 14, the said anchoring rod being intended to extend through the eyes and to project beyond the side arms for engaging the inner face of a window frame or the like, to which the bracket is to be applied. The side arms have a floor or platform 15 attached to them, but the exact construction of the platform is immaterial. The platform, however, is preferably provided with eye bolts 16 which extend through the platform and are anchored thereto by fastenings 17 such as nuts, it being shown that the side arms extend through the eyes of the eye bolts as a means for anchoring the said frame to the side arms. Sills 18 and 19 may be interposed between the platform at its ends and the said side arms, and this provision insures the stability of the structure and obviates any motion of the platform with relation to the side arms.

The side arms are further provided with clamps 20 in the nature of clips having substantially circular portions which embrace the arms, each of said clips having depending parallel portions 21 which are connected together by a bolt 22 so that the clamps or clips may be held at different positions of adjustment on the side arm, it being the intention of the inventor that the depending portions of the clips shall bear against the outer edge of the window sill or frame to which the bracket is to be applied. The provision for adjusting the clamps allows the device to be installed in buildings, the walls of which differ in thickness.

The platform has guides 23 at each side, the said guides comprising plates having lugs or extensions such as 24 projecting under the platform and secured thereto in any appropriate manner as by bolts 23′. It is shown that the guides are in spaced relation to the side edges of the platform and

these spaces constitute clearances having sliding elements as will presently appear.

The main portion of the protecting frame comprises the side standards 24′ and 25, one of which is on each side of the platform and these standards are connected by a rod or bar such as 26 having its ends connected to the standards 24′ by a pivot 27. The said rod or bar 26 is also connected to the standards 25 by pivots such as 28, and the said rod or bar has a loop portion 29 forming the rear protecting portion of the bracket. A rod or bar 30 is connected to the standards 24′ and 25 by pivots such as 31 and the outer portion of this rod or bar is looped as shown at 32 to form a protection for the outer end of the platform, but the ends 33 of the rod or bar project beyond the pivot inwardly and constitute guards for that portion of the platform inward of the pivots 31.

The standards 24′ and 25 are each pivotally connected to the platform by means of the brackets 34 which have parallel ears such as 35 and 36, between which a standard is oscillatably mounted on a pivot 37. As shown in Fig. 5, the lower end of the standard has its inner edge curved at the bottom to form a clearance to permit the standards to swing inwardly, but the outer edges of the lower ends of the standards are undisturbed and form abutments which bear against the brackets between the ears to such an extent as to prevent the said standards from swinging outwardly, the said standards being braced by the action of their pivots and the fact that their outer edges being undisturbed cannot swing in the arc of the circle without striking the bottoms of the brackets between the said ears.

This condition results in a rigid structure which resists outward pressures, but leaves these parts free to swing inwardly as stated.

As a further means for giving rigidity to the cage or structure forming the guard, braces 38 have their ends connected to the pivot 27 and the said braces extend approximately horizontally for a distance and then extend downwardly and forwardly when in operative positions, the lower ends of the said braces extending through spaces between the guides 23 and the edges of the platform. Each of the said braces has an inwardly extending end as at 39, Fig. 4, forming a foot or abutment which bears against the under surface of the platform to limit the upward movement of the brace, a condition which causes the retention of the parts in the positions in which they are shown in Fig. 1. When the parts are caused to assume the positions shown in Fig. 1 they are held against movement by latches such as 40. In the present embodiment of the invention these latches are pivoted to swing horizontally by reason of the fact that they are mounted on studs 41 or other elements by which they may swing, and each latch has a curved nose such as 42 which enters an aperture 43 formed in the braces 38, it being understood that the parts are duplicated on each side of the frame and that a description of one of them will suffice as an understanding of the construction of both of them. The front edge of each of the braces has a slot such as 44 merging with an aperture 43 which receives the latch and this construction is provided in order that when the braces are in operative position they are locked and cannot move forward until the braces are pulled forward a very little, a movement which releases them from the hooked portion of the latches and the braces move rearwardly while the guards move forwardly.

The anchoring rod has a telescopic portion 14′ and the two portion of the rod are slidable in the eyes in order that said rod may be extensible to span windows of different widths and the ends of the rods have rubber cushions A which prevent marring of the woodwork or finish of the building.

When it is desired to fold the parts, the latches 40 are moved to disengage their ends from the apertures 43 through the braces 38, and when this is done the guard frame is swung inward upon its pivots 37, and when fully lowered the parts will be positioned either below or substantially in line with the telescopic bar 14. The end portions of the pins 42 of the latches 40 are of such size and shape that they may pass between the walls of the slots 44 into apertures 43, when such end portions are positioned to extend across the space between the side edges of the platform and the guides 23. The inturned ends 39 of the braces 38 contact with the under sides of the outer board of the platform. It will be noted that the braces 38 when raised, push the bars 24′ and 25 to a vertical position, the latches then engaging with the open-sided recesses. After the guard for the platform has been set in position for use, the latches may be further moved to cause the pin or bolt 42 thereof to be passed further through the aperture.

I claim:

1. In a window bracket, a frame; a platform thereon, guides at the edges of the platform and spaced therefrom, a skeleton guard including standards pivotally connected to the platform, braces pivotally connected to the guard and having their ends extending downwardly and forwardly into the spaces between the guiding plates and the side edges of the platform, angularly projecting end portions on the braces adapted to engage the under surface of the platform, and means for holding the braces in operative pisition.

2. In a window bracket, a frame, a platform thereon, a guard comprising standards and frame elements pivotally connected together, means for pivotally connecting the standards to the platform whereby the standards are held against oscillation in one direction, braces pivotally connected to the guard and extending forwardly and downwardly to a point below the platform, means on the braces for engaging the under surface of the platform, terminal means for holding the braces in operative position, and means attached to and spaced from the platform for guiding said braces.

3. In a window bracket, a frame, a platform thereon, guides attached to and spaced from the side edges of the platform, a foldable guard which includes standards pivotally connected to the platform, braces pivotally connected to the guard said braces having their ends extending downwardly and forwardly between the guiding plates and the side edges of the platform, angularly projecting end portions on the braces adapted to engage the under surface of the platform, means for holding the braces in operative position, supporting bars having upwardly curved inner ends which terminate in eyes, and a telescopically assembled rod that extends through the eyes to be slidable therein.

4. In a window bracket, a frame, a platform thereon, guides at the edges of the platform and spaced therefrom, a foldable guard including standards pivotally connected to the platform, braces pivotally connected to the guard and having their ends extending downwardly and forwardly into the spaces between the guiding plates and the side edges of the platform, angularly projecting terminal portions on the braces adapted to engage the under surface of the platform, means for holding the braces in operative position, the said frame having upwardly curved inner ends terminating in eyes, a telescopically assembled rod extending through the eyes and slidable therein, and cushioning elements on the rod beyond the eyes which maintain the same.

JOHN A. CROZIER.