C. BLUM.

SAFETY CHAIR FOR WINDOW CLEANERS.

APPLICATION FILED DEC. 20, 1911.

1,028,319.

Patented June 4, 1912.

Fig. 1.

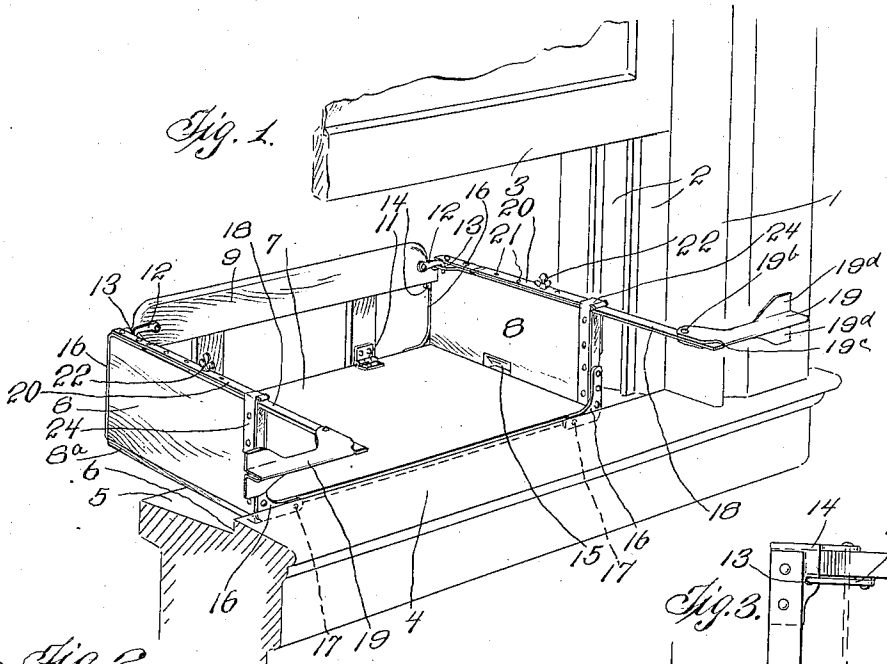


Fig. 2.

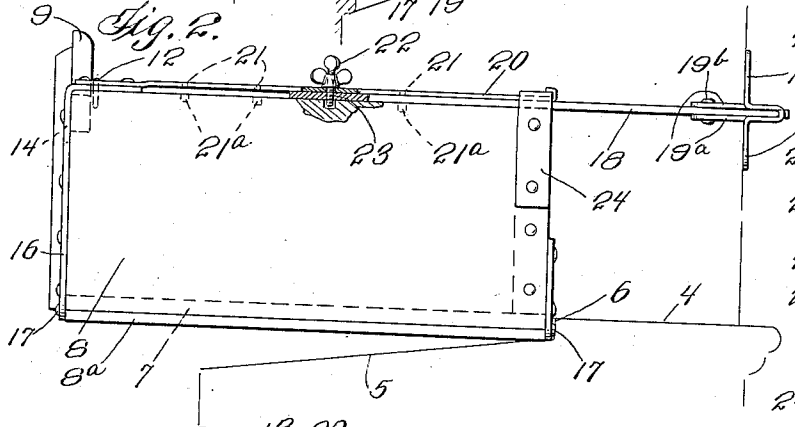


Fig. 3.

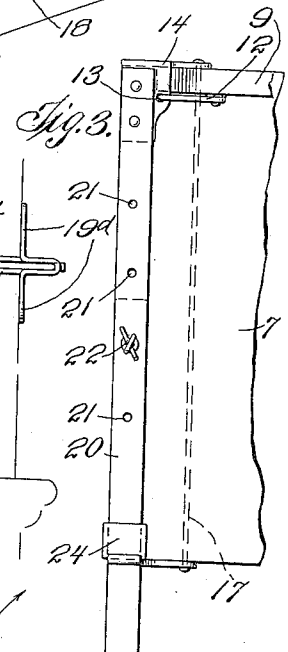


Fig. 4.

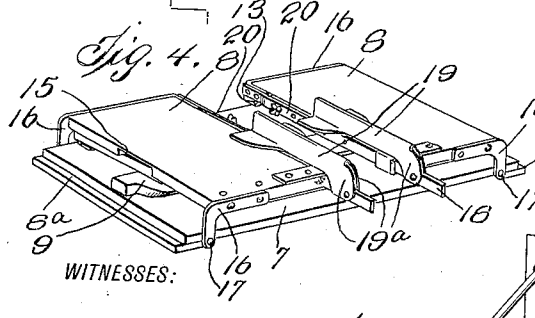
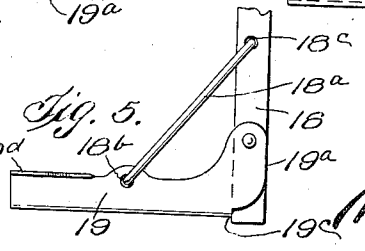


Fig. 5.



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SAFETY-CHAIR FOR WINDOW-CLEANERS.

1,028,319. Specification of Letters Patent. Patented June 4, 1912.

Application filed December 20, 1911. Serial No. 666,875.

To all whom it may concern:

Be it known that I, CHARLES BLUM, a citizen of the United States, and a resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Safety-Chairs for Window-Cleaners, set forth in the following specification.

This invention relates to an improvement in chairs or platforms adapted for attachment to window frames for the support of a person engaged in cleaning the window panes, or for other similar purposes, and the principal object sought to be attained is the provision of a collapsible structure which when distended will form a safe and reliable chair within which a person may sit comfortably, and which when in collapsed condition will require only small storage space.

A further object is to lighten the structure as far as possible and to provide for the simple and convenient manipulation of the parts when being collapsed or when distending and adjusting to a window frame.

With these and other objects in view, the invention comprises certain novel features of construction and combinations of parts which will be more particularly pointed out in the appended claims.

Referring to the drawing in which is shown an illustrative embodiment of the invention,—Figure 1 is a perspective view of a chair constructed in accordance with this invention and illustrating in broken lines, a portion of a window frame for better disclosing the method of attaching the chair thereto. Fig. 2 is an end elevational view, parts being broken away and shown in section to better illustrate details of construction, and a window frame being shown, by broken lines, to more precisely illustrate the relative position of the chair and supporting portions of the window frame. Fig. 3 is a top plan view of an end portion of the window chair, the parts being in non-collapsed position. Fig. 4 is a perspective view of a chair when in collapsed condition; and Fig. 5 is a detail view of a modification.

In the drawings, in which like letters of reference refer to like parts throughout the several views, the numeral 1 indicates a window frame having the customary vertical sash guides 2—2, for retaining the sash 3, and the inner and outer sills 4 and 5 respectively, the outer sill being depressed relatively to the inner sill for forming the weather-excluding shoulder 6, all of which parts are common to window frame construction and are in no way modified to accommodate this invention.

The chair comprises a seat board 7 of a width and length to form a comfortable seat, but being somewhat longer than wide to provide for the shifting of the body of the user, for reaching opposite side portions of wide windows. The forward or inner edge portion of the seat board 7 rests upon the inclined outer window sill 5 and within the angle formed by said window sill and the shoulder 6, in such manner that the back or outer portion of said board tends to tilt downwardly from the front edge as a fulcrum.

Side guards 8—8 are hinged to the seat board 7 adjacent the opposite ends thereof and held in relatively vertical position by a back rest 9 which extends from one side guard to the other and is pivotally connected to the seat board. The back rest 9 is adapted to swing forwardly, on the hinges 11, upon the upper face of the seat board, when the parts are collapsed, but when in non-collapsed position it fits snugly between the inner surfaces of the side guards and positively prevents collapse thereof.

Suitable latches as 12—12, fixed to the opposite ends of the back rest, are adapted to engage in eyes 13—13 formed upon the adjacent side guards for preventing accidental forward swinging of the back rest. The opposite end portions of the back rest are arranged to engage suitable stops 14 formed upon the side guards for positively retaining the back against abnormal outward swing.

Upon the upper edge of each of the side guards is a telescoping bar 18 and each of said bars is provided at its inner or free end with suitable means adapted to engage the inner surface of the window frame. In the structure illustrated this engaging means consists in a collapsible shoe as 19 adapted, when in non-collapsed position, to extend laterally from said bar into position for engaging the inner surface of the window frame. Each of the shoes 19 illustrated comprises preferably a piece of sheet metal bent upon itself and formed with a pair of ears 19^a—19^a, adapted to straddle the bar

18 and be pivotally connected thereto as by pivot pin 19[b]. A shoulder as 19[c] is formed adjacent the ears 19[a] adapted to engage the side of the bar 18 in such relation to the pivot pin 19[b] as to limit the rotation of said shoe in one direction, but leaving the shoe free to swing into collapsed position, in the opposite direction as clearly indicated in Fig. 3. At the free end of the shoe the folded portions of metal are enlarged and spread as at 19[d] for producing a suitable broad surface adapted to prevent injury to the face of the window frame.

The retaining means for each of the bars 18 consists of a strip of metal as 20 held in spaced relation above the edge of said side guard so as to form a pocket or groove between its under surface and the upper edge of the side guard into which the bar 18 is adapted to slide. Suitable apertures 21—21 are formed in the metal strip 20 adapted to receive a locking screw 22 which is arranged to project through any one of said apertures and to engage in a threaded aperture 23 formed in the bar 18. Suitable depressions as 21[a] may be formed in the upper edge of the side guard in alinement with the apertures 21, if desired, to accommodate the projecting end of the screw 22. With this construction the bar 18 may be adjusted for disposing the shoe 19 at greater or less distance from the vertical plane of the inner edge of the chair and thus be made to adapt itself to varying thicknesses of window frame.

The hinge members as 16—16 of the side guards are preferably fixed to the opposite ends of the respective side guards and are extended along the adjacent face edges of the seat board and the pivot rods as 17 extend through said extensions at points spaced from the ends of the seat board in such manner that when the side guards are swung into collapsed position their lower surfaces are spaced from the upper surface of the seat board sufficiently to accommodate the back rest, as clearly seen in Fig. 4. Suitable cut-away portions as 15—15 are formed in the side guards, at their lower edges, for accommodating the swing of the side guards past the ends of the back rest after the back rest has been collapsed, and a ledge or shoulder as 8[a] is formed at each end of the seat board for limiting outward swing of the side guards.

Reinforcing bands as 24 may be fixed to the side guards for preventing warping of the material thereof and for supporting the inner end of the metal strip 20. At the outer ends of the side guards the hinge members 16 are extended upward along the outer edges of the side guards for strengthening said guards and the upper ends of the hinge members are bent forwardly over the upper edges of the side guards and serve as spacers for the metal strips 20. At their upper ends these outer hinge members are preferably enlarged to form the stops 14 for the back rest and the eyes 13, for the latches 12 as clearly shown in Figs. 1 and 3.

It will be noted, by particular reference to Fig. 1, that, when the chair is adjusted to a window frame, the shoes 19 project in opposite directions and engage vertical portions of the window frame above the horizontal plane of the window sill and of the seat board. The shoes are thus made to compress against said window frame and positively prevent the downward tilting of the outer edge of the seat board. In collapsing the chair the back rest is first thrown down and the side guards are swung over the back rest. The bars are slid into their pockets and the shoes are swung down upon the side guards. See Fig. 4. The compact arrangement thus obtained renders possible the easy and convenient transportation and storage of the chair.

The modification illustrated in Fig. 5 contemplates a reinforcement for the shoes 19 for withstanding the tendency of said shoes to swing or give under the strain of supporting the chair and consists in a suitable rod or link as 18[a] pivotally engaged in a suitable eye as 18[b] formed in the shoe, said rod being formed at its opposite end to engage in an eye 18[c] and being arranged to extend across the angle of connection between the shoe and the bar 18.

What is claimed and what is desired to be secured by United States Letters Patent is:—

1. In a window chair, the combination with a seat board, having collapsible side guards pivotally connected thereto, of means carried by said side guards adapted to engage a window frame, and a back rest carried by said seat board adapted to engage said side guards for positively maintaining said window frame engaging means in engaged relation with a window frame.

2. In a window chair, the combination with a seat board adapted to have one of its edges engage a relatively outer surface of a window frame, and collapsible side guards fixed to said seat board, of means carried by said side guards adapted to engage a relatively inner surface of the window frame, and a collapsible back rest pivotally connected to said seat board and adapted to be swung into position for positively maintaining said last mentioned means in engaged relation with a window frame.

3. In a window chair, the combination with a seat board, having collapsible side guards pivotally connected thereto, of means carried by said side guards adapted to engage a window frame, and locking means extending between and engaging said side guards to lock said side guards in non-col-

lapsed position, whereby said window frame engaging means is positively maintained in engaged relation with a window frame.

4. In a window chair, the combination with a seat-board having collapsible side guards pivotally connected directly thereto, said seat-board being adapted to engage a relatively outer surface of a window frame; of telescopically mounted extension members fixed one to each of said side guards and each of said extension members having a laterally projecting end portion, said end portions projecting in opposite directions when said side guards are in non-collapsed position and being adapted to engage relatively inner surfaces of a window frame above the plane of said seat-board; and a collapsible back rest pivotally connected directly to said seat-board and adapted to be swung into position for positively maintaining the end portions of said telescopically mounted members in engaged relation with the window frame.

5. In a window chair, the combination with a seat-board; of means carried by said seat-board adapted to be moved into engaged relation with a window frame for supporting said seat-board from said window frame; and a pivotally mounted back rest carried by said seat-board adapted to be swung so as to lock said window frame engaging means in engaged relation with the window frame.

In witness whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

CHARLES BLUM.

Witnesses:

PAUL ARENSTEIN,

RALPH NUNES.