

Aug. 1, 1939.

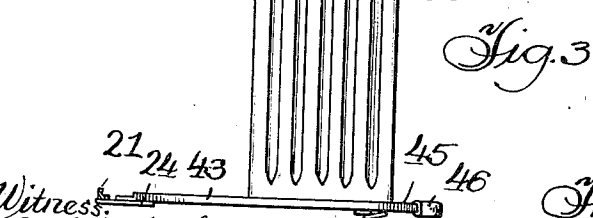
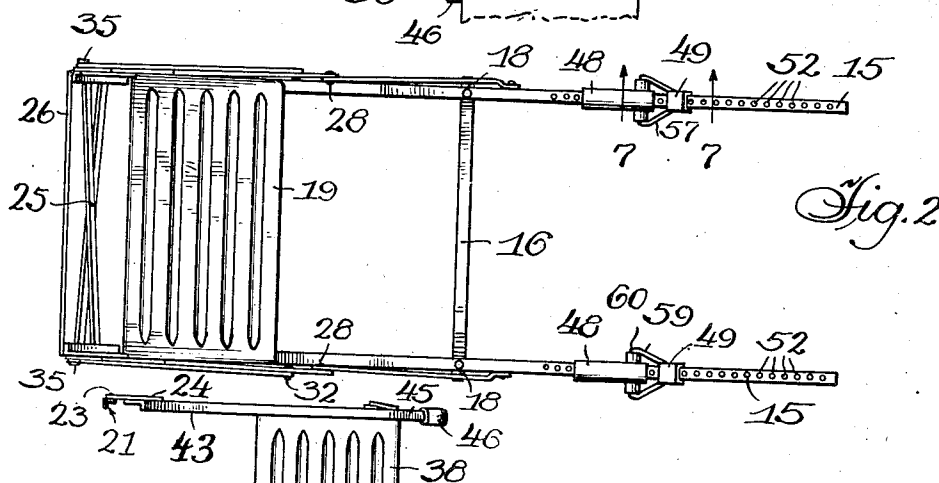
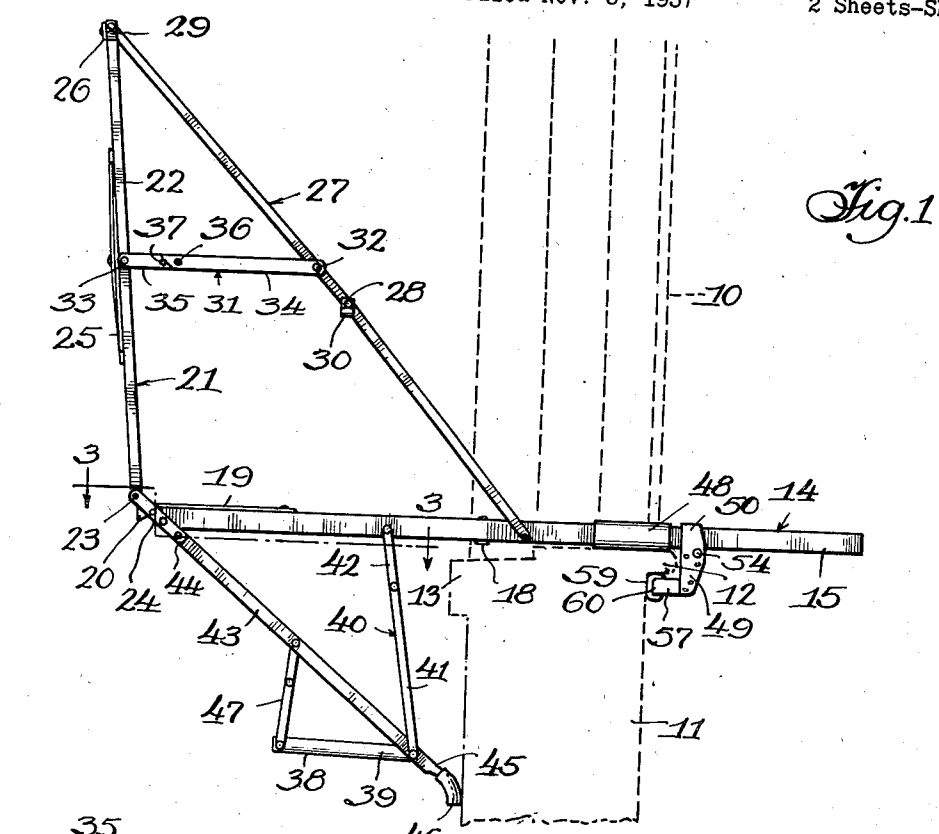
F. J. KERBER

2,167,982

MULTISTAGE WINDOW CHAIR

Filed Nov. 3, 1937

2 Sheets-Sheet 1



Witness:
Chas. L. Korsch

Inventor,
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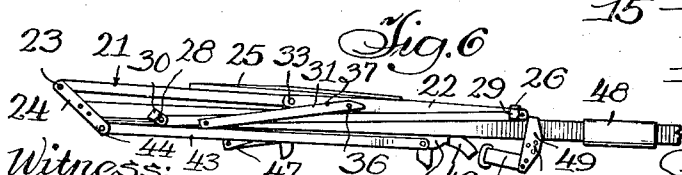
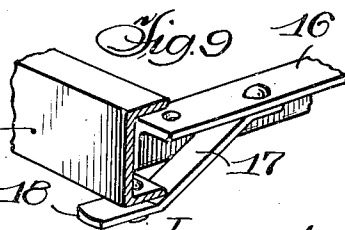
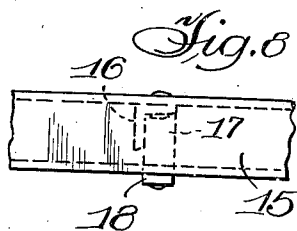
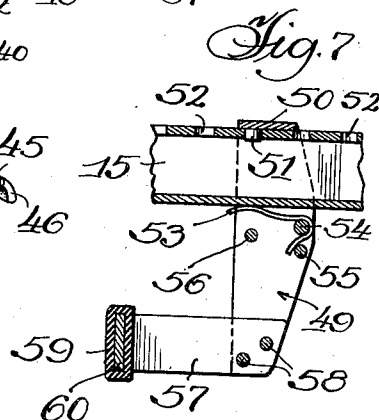
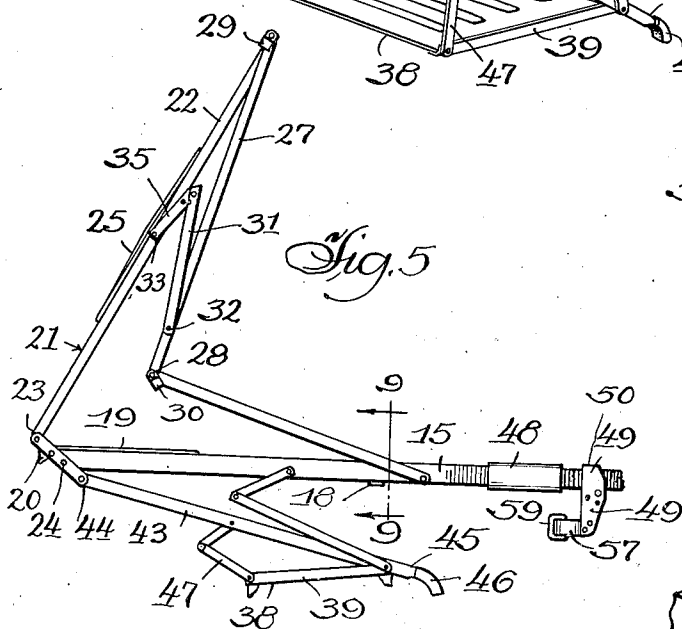
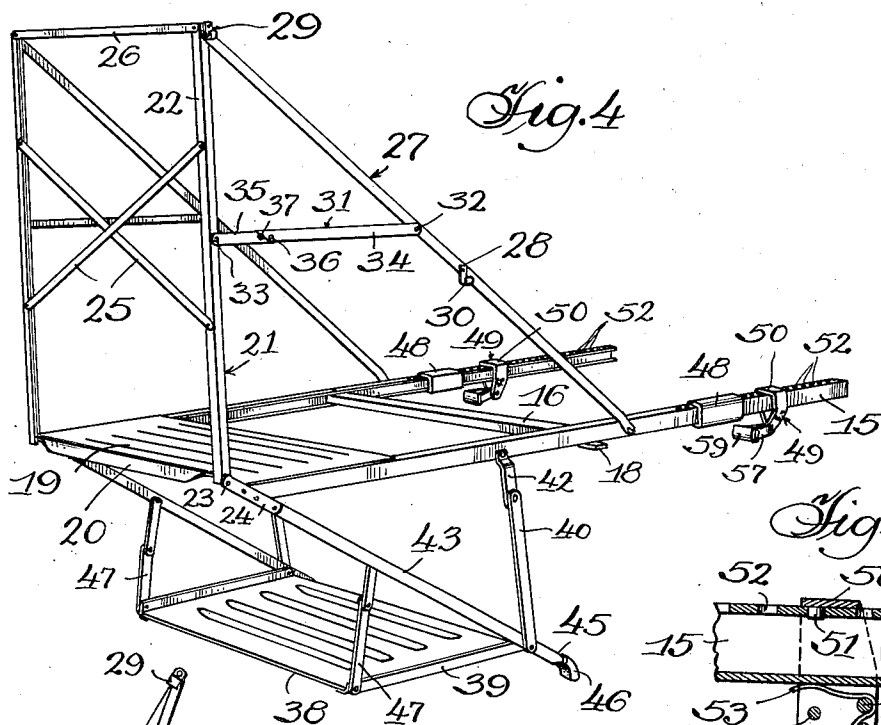
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MULTISTAGE WINDOW CHAIR

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2 Sheets-Sheet 2



Witness:
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UNITED STATES PATENT OFFICE

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MULTISTAGE WINDOW CHAIR

Frank J. Kerber, Chicago, Ill.

Application November 3, 1937, Serial No. 172,643

5 Claims. (Cl. 304—27)

My invention relates to a multi-stage window seat designed to be set in a window and positioned outside the same for supporting a workman in a convenient and comfortable position and at different elevations to accessibly and readily wash the windows, painting or repairing of the frames, or tuck pointing and the like, irrespective of the width or height of the window.

An object of the invention is to provide a window seat in which the workman or painter may sit comfortably or stand on wide platforms fully supporting the feet instead of requiring the workman to stand for long hours on a narrow support or rung as of a ladder with the discomfort and ill effects thereof known only too well to those accustomed to such work and procedure, and which also provides a light, inexpensive and readily placed seat likewise capable of easy removal, besides being safe, strong and durable even for a heavy workman without the discomforts of ladders or scaffolding in carrying on the work, and besides avoiding the excessive expense of the usual staging hung from a roof or scaffolding, thereby placing the same within the means of the average workman or home owner.

Another object of the invention is to provide a multi-stage window seat which gives a chair like structure or two or three stages or elevations for the use of the workman as found desirable or necessary according to the size of the window, frame or casement; which is easily and firmly clamped and held in a window irrespective of the thickness of the wall; which can be readily folded into a compact structure for transportation and which is light and easily manipulated.

With the above and other objects in view, the invention consists in certain novel structure and arrangements of parts to be hereinafter more fully specified and pointed out in the claims.

In the accompanying drawings:

Figure 1 is a side elevation of the invention in position in a window, the latter being indicated in dotted lines.

Figure 2 is a plan view of the device.

Figure 3 is a horizontal section taken on the line 3—3 of Figure 1.

Figure 4 is a perspective view of the invention.

Figure 5 is a side view of the device in a partly folded condition.

Figure 6 is a view similar to Fig. 5, but completely folded.

Figure 7 is an enlarged detail sectional view taken on the line 7—7 of Fig. 2.

Figure 8 is a detailed view showing a cross

brace and stop to limit the folding of the device, and

Figure 9 is a detailed sectional perspective view taken on the line 9—9 of Figure 5.

Referring to the drawings in detail, in which similar reference characters designate corresponding parts throughout the several views, 10 designates the window frame and 11 the wall structure, both of which may be of the conventional types with the usual ledge 12 and sill 13. The multi-stage window chair comprising the invention comprises a horizontal frame 14 preferably fabricated of two spaced longitudinal side bars 15 such as channels 15 with their webs outwardly and their top and bottom flanges extending inwardly as shown and connected immediately by an angle cross brace 16 as seen more especially in Figs. 8 and 9. The webs of the bars 15 may be perforated or otherwise treated to reduce the weight.

The ends of the cross brace 16 abut the inner faces of the webs of the spaced bars 15 with the upper horizontal flange abutting the top of the bar at each side at the bottom face of its flange and the vertical flange abutting the web thereat, the two parts being rigidly connected by angle braces 17 properly bent and riveted thereto with the outer end projecting from beneath the bottom flange of each bar to form a stop 18. The outer end portions of the bars 15 are connected by a corrugated or ribbed sheet 19 secured on the top flanges of the bars, the ribs or corrugations being provided for strength and being deep, and having holes for draining, and inner and outer depending flanges 20 for additional strength or stiffening. This provides a platform or seat for the workman at a stage in line with the bottom of the frame as seen in Fig. 1.

At the outside or back of the frame 10 an upright frame 21 is provided comprising side angle members 22 pivoted at their lower ends as at 23 to the corresponding ends of forwardly inclined links 24 secured rigidly to the rear ends of the side bars 15. The side members 22 slant backwardly toward their upper ends when in operative position and are connected intermediately by cross braces 25 and their upper ends are connected by a top bar 26 which keeps the back of the seat rigid and provides a rest. The upper ends of the members 22 at their inner faces are connected by articulated joints 27 to the outer sides of the bars 15 adjacent to the window frame, being composed of two links pivoted at their outer ends and pivotally connected to each other at 28, the upper and intermediate pivots support-

ing hooks 29 and 30 for supporting a pail or tools. Above the pivotal connections 28 adjacent the lower ends of the upper links thereof, articulated joints 31 are pivotally connected thereto at 32 on the outside and extend horizontally to similarly connect at 33 to intermediate points of the side members 22. These joints 31 comprise long links 34 and short links 35 pivoted together at 36 and the rear end of each long link is projected to engage a stop or pin 37 carried by each short link to permit the joints to break or fold upwardly but to become rigid when in a horizontal operative position as seen in Figs. 1 and 4 so as to rigidly brace the back of the seat and provide a guard structure for the user.

Another stage is suspended beneath the frame 14 and seat 19 as shown at 38 to provide a rest for the feet when seated on the sheet 19 or when standing, or the workman may stand on the latter sheet. The sheet 38 is also of corrugated galvanized iron or the like the same as the sheet 19 with the ends flanged as at 39 and pivotally supported by articulate joints 40 with long lower links 41 and short upper links 42 pivotally connected at their lower and upper ends to incline side braces 43 and the bars 15 respectively. The braces 43 are pivoted at 44 to the lower forward ends of the links 24 and have their lower ends curved as at 45 to bear cushions 46 adapted to engage the outer face of the wall 11 a short distance down from the sill 13. The rear or outer ends of the flanges 39 or outer edge of the sheet 38 are suspended by links 47 from the braces 43 in the form of articulated joints designed to fold rearwardly the same as the joints 40 as shown in Figs. 5 and 6 so that the sheet 38 will fold compactly against the frame 14. The back structure also folds down against the frame 14 with the joints 27 breaking downwardly and outwardly while the joints 31 break upwardly, thus permitting the back 21 to fold against the frame 14 limited by the engagement of the lower links of the joints 27 with the stops or projections 18. This prevents these parts from moving over the dead center, from which position they may be easily extended for use.

An adjustable clamping means is provided to engage the inner face of the wall 11 beneath the ledge 12 and inwardly of sleeves or cushions 48 bounded on the bars 15 to protect the window frame against which the bars 14 rest. These clamping means are mounted on each bar 15 and consist each of an inverted U-shape frame or sleeve 49 the bight portion 50 of which has a pin 51 designed to engage one of a series of spaced apertures 52 along the top flange of each bar 15. A spring 53 is bent around a spacing pin 54 connecting the sides or legs of the member 49 and the upper long end thereof engages the bottom flange of the corresponding bar 15 while the other end of the spring fits over a pin 55 to exert pressure against the bottom of the bar and hold the pin 51 in an aperture. A pin or rivet 56 also connects the sides of the members 49 and prevents the spring from dropping out. The lower ends of the legs of each member 49 are brought closer together and have horizontal arms 57 connected or riveted thereto as at 58 and are also U-shaped to receive cushion sleeves 59 on the bight portions 60 thereof to prevent injury to the wall. It may also be mentioned that the joints 31 may support a third higher stage or platform upon which the workman may sit while

resting his feet on the sheet 19, or he may stand thereon in case of very high windows.

In operation, the device may be easily slipped through a window opening set up or folded partially until the lower ends of the braces 43 engage the outer face of the wall 11 and then by canting the lower ends of the clamps upwardly and outwardly against the springs 53 limited by the pins 56, the pins 51 will be displaced from the apertures 52, the clamps may be slid along the bars 15 tightly against the wall 11 at the inside to firmly hold the device in place and permit it to withstand a weight or jarring considerably in excess of that required in normal use with complete safety. Attention is also directed to the fact that by reason of the hung or suspended platform 38, a person may step through the window and bring the feet to rest at a point beneath the sill instead of in line therewith to greatly facilitate ingress and egress from and to the seat beneath the raised window sashes, as it is thought will be readily apparent. The device has been found in practice to sustain a weight of 1400 lbs. and still it may be compactly folded for convenient transportation for storing when not in use and weighs about 28 lbs. even though all of metal.

While I have shown and described my invention in a preferred form I am aware that various modifications and changes may be made therein without departing from the principles of the invention, the scope of which may be determined by reference to the appended claims.

I claim as my invention:

1. A window chair including a horizontal frame, means to secure the frame to a window casement so that a considerable portion of the frame protrudes outside the sill of the window, a platform on the latter portion, a foldable guard structure on said portion and including a pivoted outer frame inclined backwardly, a foldable structure between the guard structure and frame adapted to permit the former to fold toward the latter, a foldable structure beneath the latter and including a platform hung therefrom forwardly of the first platform and braces inclined forwardly from the rear end of the frame to engage the outside of a wall, and spring-held clamping means adjustably mounted on the inner portion of the frame to engage the inside of the wall to clamp the device thereto.

2. A multi-stage window chair including a horizontal frame having longitudinal side bars in the form of channels, said frame adapted to project thru a window opening and outside the sill thereof, an upright frame pivoted to the outer end of the first frame, articulated joints connecting the top of the upright frame to the intermediate portion of the horizontal frame, articulated joints connecting the intermediate portion of the upright frame to the first articulated joints and adapted to brace the same rigidly in an extended position, foldable braces beneath the horizontal frame and extending from the outer end thereof in inclined position forwardly to engage the outside of a wall, articulated joints hung from the horizontal frame and the braces, a platform supported thereby, a platform on the outer portion of the horizontal frame, and adjustable angular spring-held clamps on the side bars to clamp the inside of said wall.

3. A foldable window chair of the class described, having spaced horizontal members comprising inwardly facing channel members having apertures in the top flanges thereof, inverted U-

shaped clamps slidable along the channel members and each having a depending pin at the bight portion thereof to engage an aperture, a spring in each clamp between the sides thereof to engage the bottom flanges and seat the pins in the apertures but permit release thereof by an upward rocking motion, and horizontal bottom jaws on the lower ends of the clamps to engage the inside of a wall.

4. A window chair including a horizontal frame, means to secure the frame to a window casement so that a considerable portion of the frame protrudes outside the sill of the window, a platform on the latter portion, a foldable guard structure on said portion and including a pivoted outer frame, a foldable structure between the guard structure and frame adapted to permit the guard structure to fold toward the horizontal frame, a foldable structure beneath the frame and including a platform hung therefrom, braces between the frame and foldable structure to assist in supporting the hung platform and to engage the outside of a wall having the window, and clamping

means adjustably mounted on the inner portion of the horizontal frame to engage the inside of the wall to clamp the device thereto.

5. A multi-stage window chair including a frame adapted to be clamped to the bottom of a window opening and to project outside the same, including side bars, an upright frame on the outer portion of the first frame, articulated joints between the upright frame and the intermediate portion of the first frame, articulated joints between the upright frame and the first articulated joints and adapted to support a platform above the frame and to fold thereagainst, foldable braces between the first frame and the outer wall of a building having the window opening, articulated joints hung beneath the first frame and the braces, the braces being pivoted to the articulated joints hung from the first frame to support a platform beneath the first frame inwardly of a platform thereon, and clamps on said first frame to engage the inside of said wall.

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