March 26, 1940. N. IRELAND 2,194,978

PORTABLE WINDOW CLEANING SCAFFOLD

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Fig. 1.

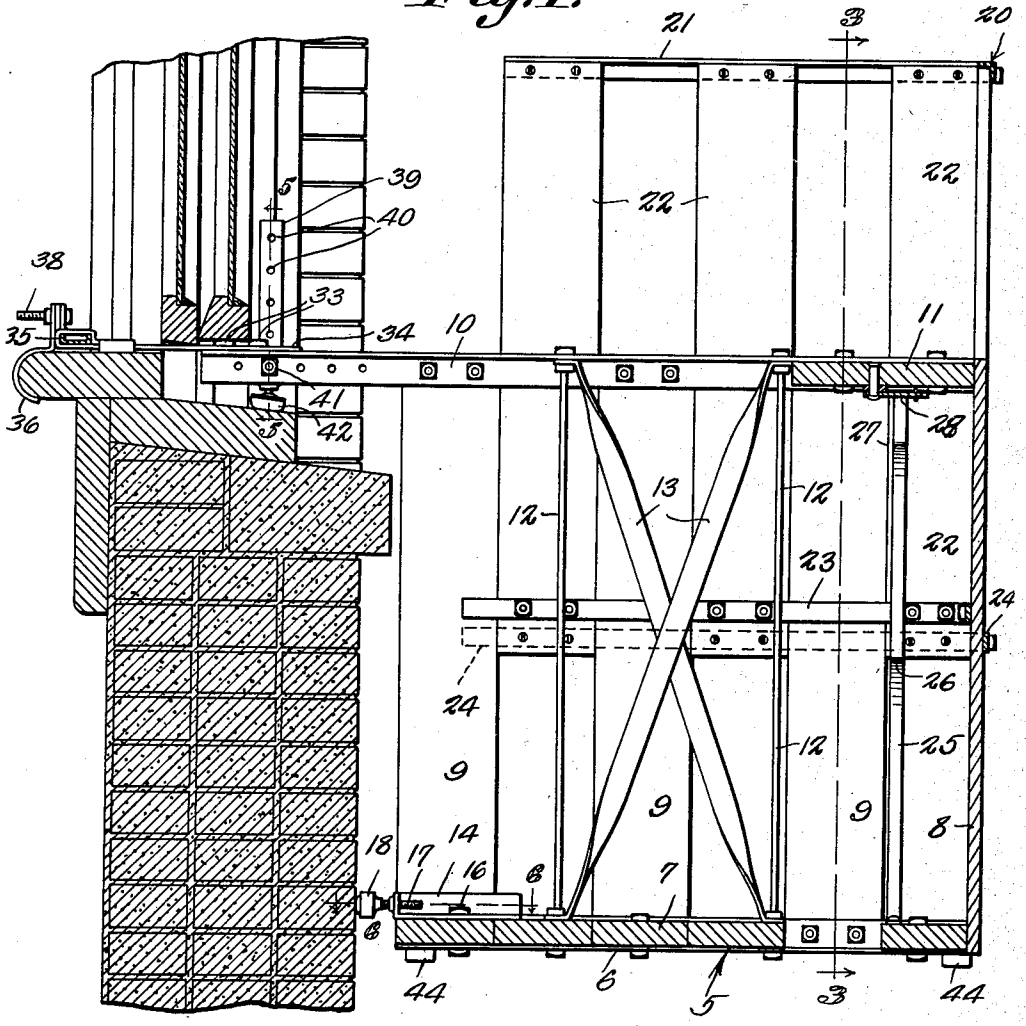


Fig. 5.

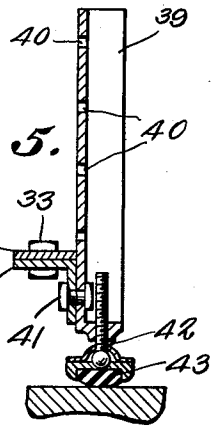
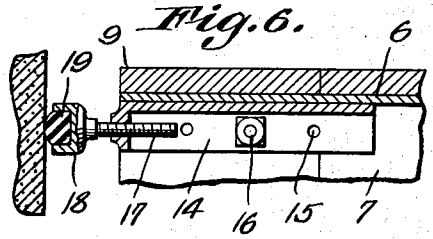


Fig. 6.



Newton Ireland
INVENTOR.

BY A. Snow & Co.

ATTORNEYS.

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PORTABLE WINDOW CLEANING SCAFFOLD

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Fig. 2.

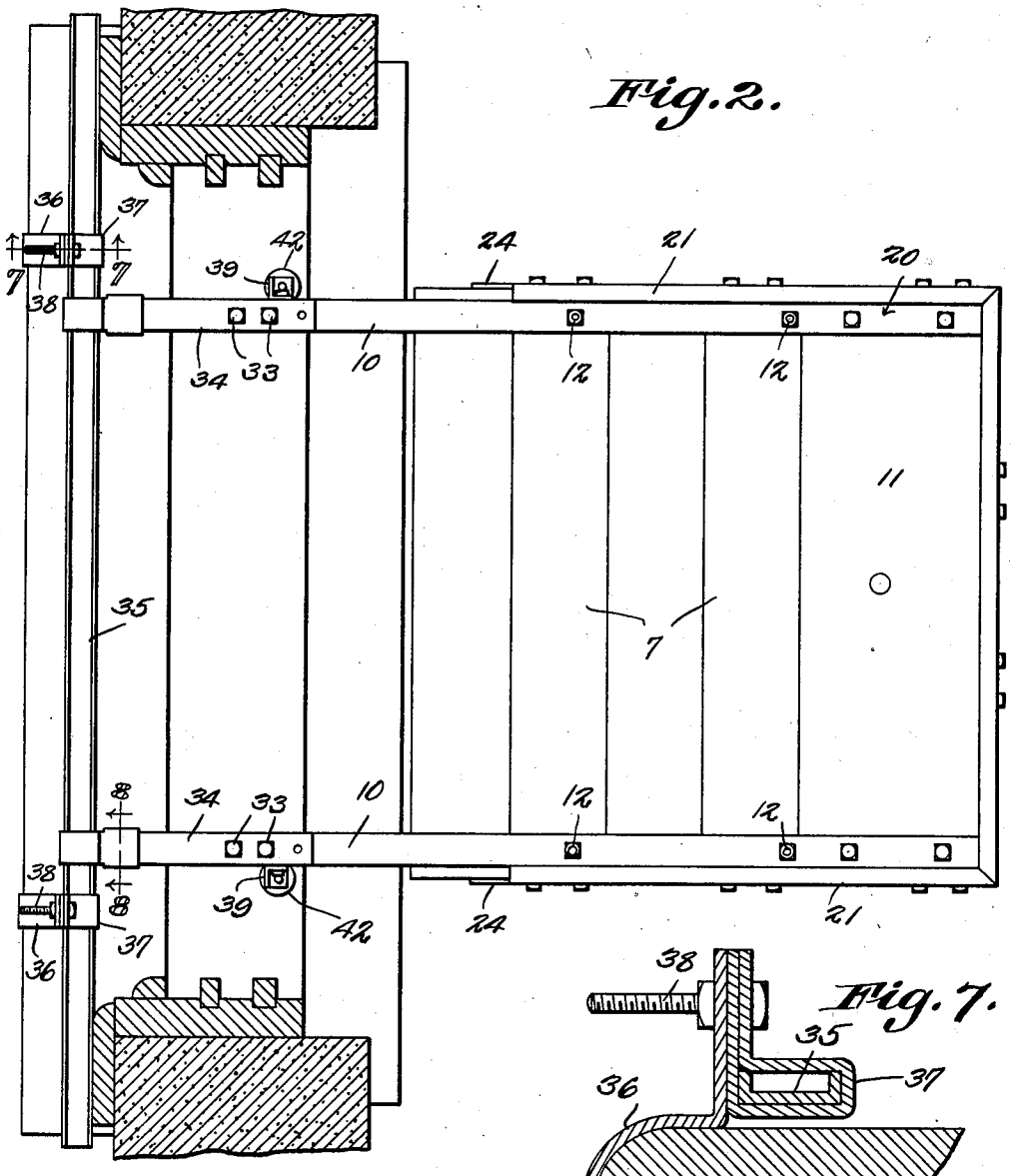


Fig. 7.

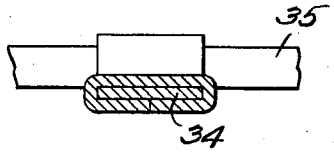


Fig. 8.

Newton Ireland
INVENTOR.

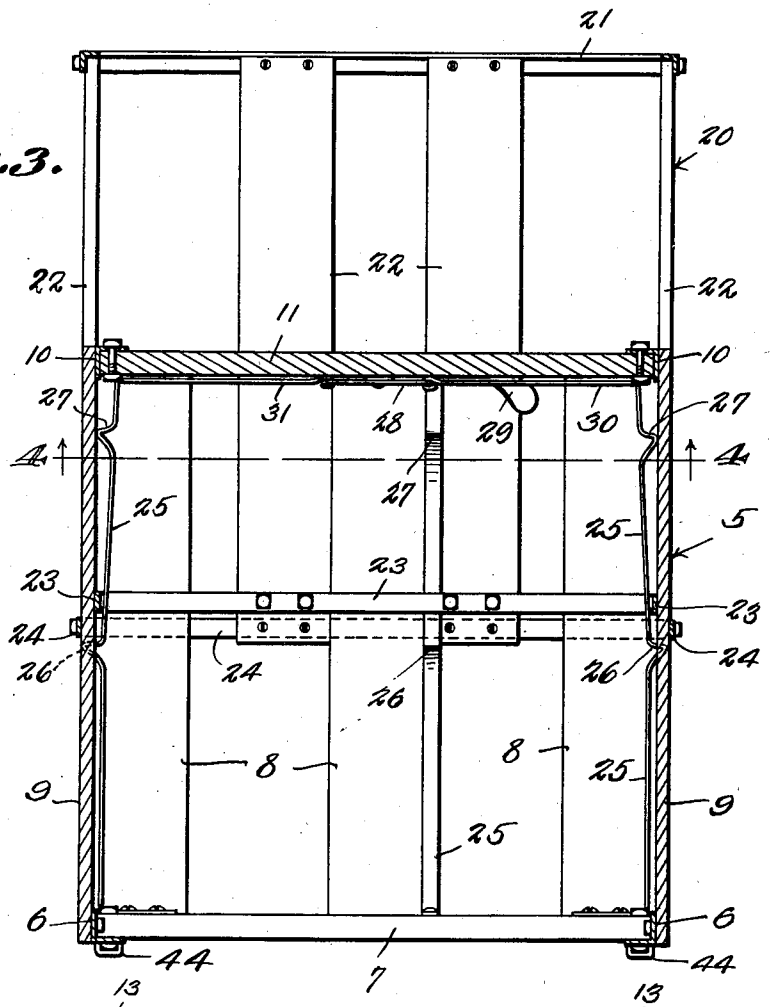
BY C. A. Snow & Co.
ATTORNEYS.

March 26, 1940. N. IRELAND 2,194,978

PORTABLE WINDOW CLEANING SCAFFOLD

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Fig. 3.



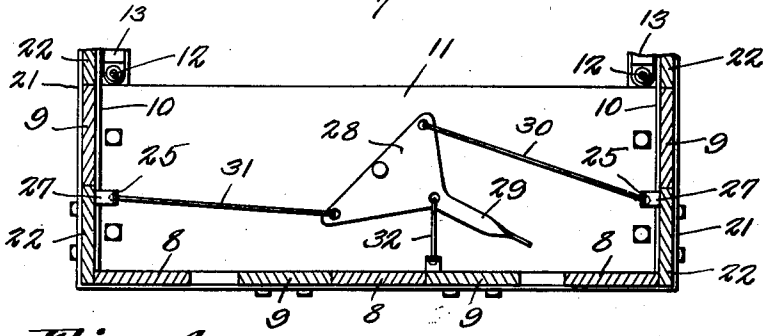


Fig. 4.

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Patented Mar. 26, 1940

2,194,978

UNITED STATES PATENT OFFICE

2,194,978

PORTABLE WINDOW CLEANING SCAFFOLD

Newton Ireland, Minneapolis, Minn.

Application February 8, 1939, Serial No. 255,311

3 Claims. (Cl. 304—27)

This invention relates to portable window scaffolds, the primary object of the invention being to provide a portable scaffold or platform which may be readily and easily secured adjacent to a window, so that the person washing or repairing the window may stand thereon and have free use of his hands and arms to accomplish the work.

An important object of the invention is to provide a device of this character including a guard section which may be extended to various heights, to afford ample protection for the worker while washing the upper sashes of windows, where the worker is required to reach high above his head.

A further object of the invention is to provide supporting arms for the scaffold or platform, which may be adjusted adapting the device for use with windows and window sills of various constructions.

A still further object of the invention is to provide a scaffold or platform which is exceptionally light and easily handled, due consideration having been given to the strength and durability of the structure to insure stability of the scaffold or platform while in use.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a longitudinal sectional view through a scaffold or platform, constructed in accordance with the invention.

Figure 2 is a plan view thereof.

Figure 3 is a sectional view taken on line 3—3 of Figure 1.

Figure 4 is a sectional view taken on line 4—4 of Figure 3.

Figure 5 is a sectional view taken on line 5—5 of Figure 1.

Figure 6 is a sectional view taken on line 6—6 of Figure 1.

Figure 7 is a sectional view taken on line 7—7 of Figure 2.

Figure 8 is a sectional view taken on line 8—8 of Figure 2.

Referring to the drawings in detail, the main section of the scaffold is indicated generally by the reference character 5, and embodies parallel bars 6 which are of angular construction, providing supports for the floor boards 7, which are shown as bolted thereto. While these floor boards 7 provide the flooring for the main section, they at the same time, provide means for holding the bars 6 in proper spaced relation with respect to each other.

Secured to the floor board 7 which extends along the rear of the main section, are upstanding boards 8 which are arranged in horizontal spaced relation with respect to each other. Vertical parallel bars indicated by the reference character 9 are connected to the bars 6, and constitute the sides of the main section of the scaffold or platform.

The upper ends of the vertical parallel bars 9 are connected by means of the bars 10 which are disposed in horizontal spaced relation with respect to the bars 6, the bars 10 being however slightly longer than the bars 6, so that when the device is positioned against a building adjacent to a window opening, the forward ends of the bars 10 will extend appreciable distances within the window opening, as clearly shown by Figure 1 of the drawings.

The reference character 11 designates a seat board that is secured between the bars 10 at the rear of the main section, the member 11 providing a seat for the person using the scaffold or platform, so that the person may work in a sitting position.

This member 11 may also be used as a platform on which the window washer may stand to reach the upper portion of the upper sash of the window.

At both sides of the main section 5, are vertical rods 12 which have their ends extended through certain of the floor boards, and through the bars 6 and 10, there being provided cross bracing bars 13 connected with the vertical rods 12, for bracing the main section against sagging under the weight of a person standing on the scaffold.

Secured to the forward ends of the parallel bars 6, are bars 14 which are provided with a plurality of openings 15 for the reception of the bolt 16, whereby the bars 14 may be adjusted to extend various distances beyond the forward ends of the bars 6, to meet certain requirements of use. Threaded openings are formed in the forward ends of the bars 14, and receive the threaded shanks 17 of the wall engaging members 18 that have cushioning members 19 supported thereby, to contact with the wall to insure against the device disfiguring the wall face. Thus it will be seen that due to this construction, the lower front edge of the main section may be held at

various distances from the face of the wall of the building with which the device is used.

The guard section, forming a part of the scaffold, is indicated generally by the reference character 20, and comprises a rectangular frame 21 formed of angle bar material, to which the vertical boards 22 are connected, the boards 22 being arranged in parallel spaced relation with respect to each other and disposed in such a way that the spaces between adjacent boards of the guard section, will accommodate the upstanding boards 8 of the main section of the scaffold, slidably mounting the vertically adjustable guard section with respect to the main section. The lower ends of the bars 22 are connected by means of the bars 23 that slide over the inner surfaces of the vertical bars 8 of the main section of the scaffold. Secured to the outer surfaces of the boards 22, is a bar 24 that slides over the outer surfaces of the upstanding boards 8, as the vertically adjustable guard section is moved.

Spring arms indicated at 25 have their lower ends secured to the base of the main section 5, the upper ends of the spring arms being free to move inwardly. Offset portions 26 and 27 are formed on the spring arms 25, and lie in the path of travel of the bar 23. Thus it will be seen that when the bar 23 engages either the offset portions 26 or 27, the vertically adjustable guard section 20 will be held against movement with the result that by moving the vertically adjustable guard section 20 to the proper position, the guard section 20 may be adjusted to extend various distances above the upper edge of the main section 5 of the scaffold.

Pivotally mounted under the seat board 11, is an actuating plate 28, which is provided with an arm 29 which may be grasped by the operator, to move the plate. One end of the plate 28 is connected with one of the spring arms 25, by means of the rod 30. The spring arm 25 at the opposite side of the scaffold, is connected with one end of the plate 28 by means of the rod 31, while the spring arm located at the rear of the main section is connected with the plate 28 adjacent to the handle 29, by means of the rod 32. Thus it will be seen that due to this construction, the operator may by moving the arm 29 move the spring arms inwardly to disengage the bar 23 of the vertically adjustable guard section, allowing the guard section 20 to be moved vertically. When the arm 29 has been moved to its normal position, the spring arms will swing outwardly in the path of travel of the bar 23 holding the vertically adjustable section against further movement.

Adjustably connected with the bars 10 of the main section 5, and held in position by means of the bolts 33, are adjustable sections 34 that have slidable connection with the bar 35, which is of a length to span the space of the usual window opening, as clearly shown by Figure 2 of the drawings. In use, the ends of the bar 35 rest against the window frame at the inner side of the window. The bar 35 is held in position on the window sill, by means of the clamps 36 that are also mounted for sliding movement longitudinally of the bar 35, by means of the loop members 37, the loop members and clamps 36 being secured together, by means of the bolts 38.

In order that the forward ends of the bars 10 will be supported at their point of contact with the adjustable sections 34, vertical leg members 39 are provided, the leg members being formed with openings 40 for the reception of the bolts 41, whereby the legs may be adjusted with respect to the bars 10, adapting the device for use on window sills of various thicknesses. At the lower ends of the leg members 39, are the adjustable feet 42 that have cushioning members 43 which rest on the base of the window sash, with which the device is used.

Cushioning blocks 44 are secured to the bottom of the main section of the scaffold, so that the scaffold may be positioned on the floor or other place of support, without danger of scarring or damaging the floor surface.

From the foregoing it will be seen that due to the construction shown and described, I have provided a scaffold or platform to be used by window washers, wherein the person using the device may either operate while in a sitting position or may stand erect thereon, to wash the upper window sections. It will of course be understood that when the scaffold is used by a person reaching high above his head, the adjustable section may be moved to the limit of its extended position, guarding the person using the device against falling from the scaffold.

What is claimed is:

1. A window scaffold comprising a body portion including lower side bars, floor boards connected with the side bars, upper side bars, spaced side boards connecting the upper and lower side bars, a vertically adjustable section including spaced side bars movable between the side bars of the body portion, means for securing the vertically adjustable section in various positions of adjustment with respect to the body portion, and means for securing the vertically adjustable sections in various positions of adjustment.

2. A window scaffold comprising a box-like body portion, a vertically movable guard section mounted on the body portion and adapted to extend to a position an appreciable distance above the upper edge of the body portion, spring arms mounted on the body portion and extending upwardly within the body portion, offset portions on the spring arms providing stops disposed in the path of travel of the guard section, said stops adapted to engage the lower edge of the guard section holding the guard section in various positions of adjustment, means for operating the spring arms to disengage the spring arms and guard section, and means for securing the scaffold adjacent to a window opening.

3. In a window scaffold, a rectangular frame embodying lower parallel bars and upper parallel bars, said upper bars being longer than the lower bars and adapted to extend into the window adjacent to which the scaffold is hung, a transversely disposed bar to which the free ends of the upper bars are connected, the transversely disposed bar being of a length to engage the surface adjacent to the sides of the window, adjustable hook members movable longitudinally of the transversely disposed bar and adapted to hook over the window sill, vertically adjustable members mounted on the upper bars adjacent to the hook members and adapted to rest against the window sill supporting the upper bars in horizontal positions, adjustable members carried at the forward ends of the lower parallel bars and adapted to engage the surface adjacent to the lower edge of the window, and floor bars and side bars mounted on the frame.

NEWTON IRELAND.