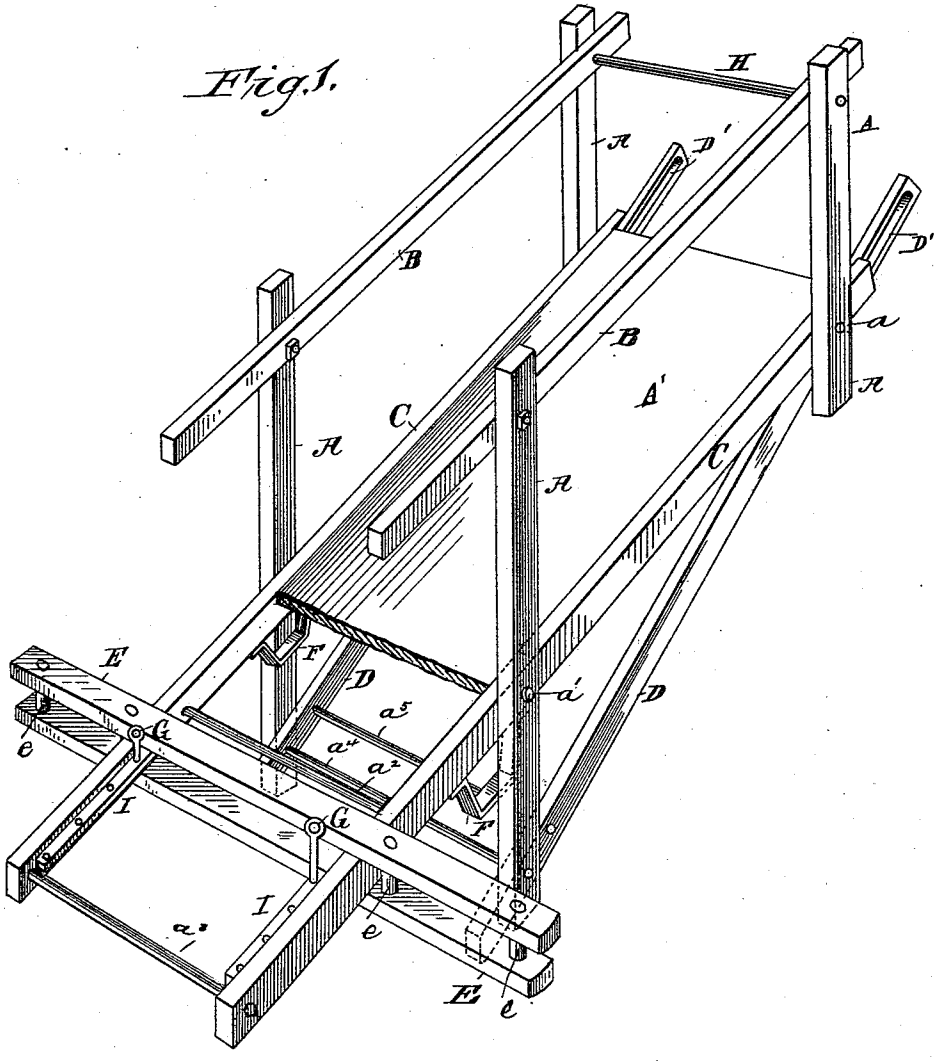
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WINDOW CLEANING CHAIR.

No. 457,695. Patented Aug. 11, 1891.

Fig. 1.



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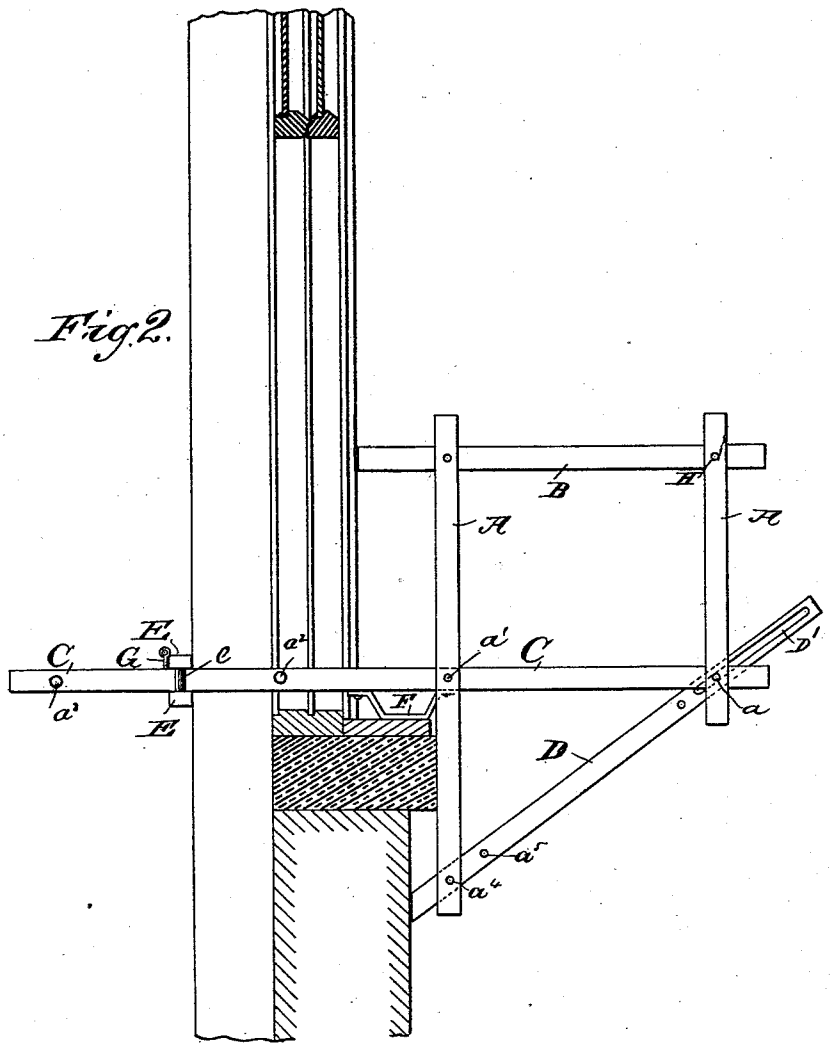
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Fig. 2.



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UNITED STATES PATENT OFFICE.

ABNER BARNHART, OF BROOKLYN, NEW YORK.

WINDOW-CLEANING CHAIR.

SPECIFICATION forming part of Letters Patent No. 457,695, dated August 11, 1891.

Application filed March 9, 1891. Serial No. 384,269. (No model.)

To all whom it may concern:

Be it known that I, ABNER BARNHART, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Window-Cleaning Chair, of which the following is a full, clear, and exact description.

My invention relates to an improvement in window-cleaning chairs, and has for its object to provide a chair or portable platform adapted to be firmly held in engagement with a window-frame and to extend beyond the outer side of said frame; and the object of the invention, further, is to provide a chair or platform of light and durable construction, capable of being expeditiously placed in position, and which may be compactly folded to occupy but little space when not in use.

Another object of the invention is to provide the chair or platform with guard-rails and to provide fastening devices for securing the chair in position, which fastenings will not in the least mar the building or injure the window-frame.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the views.

Figure 1 is a perspective view of the chair; and Fig. 2 is a partial vertical section through a window-frame, illustrating the chair in position for use.

The body of the chair comprises two side pieces C, parallel and preferably of equal length, which side pieces are preferably connected by four rods a, a', a^2, and a^3. The rod a is located at the back of the structure and extends through and beyond the side pieces. The rod a' is located between the center and the forward end and also extends through and beyond the side pieces; but the rods a^2 and a^3, one of which is at or near the extreme forward end of the structure and the other between the end rod and intermediate rod a', extend only through the side pieces, and their ends are preferably flush with the outer faces of the side beams.

The floor or platform A′ is made between the side pieces or beams C upon the rods a and a', the said flooring or platform being preferably made to terminate at or near the intermediate brace-rod a^2. Uprights A are pivoted upon the outer or projecting ends of the brace-rods a and a', both of the uprights being preferably made to extend, when in a vertical position, somewhat below the body, and the forward or inner uprights are of much greater length than the outer or rear ones. The uprights at the side are connected by a rail B, the connections being pivotal ones, and a rod H is passed through the upper portions of the outer or rear uprights and the rails connected therewith, the said rod H constituting the pivotal connection of the uprights and rails at this point. A brace-beam D is pivoted to the lower end of each of the forward or inner uprights A, preferably by a rod a^4, and the said beams are braced near their lower ends by a rod a^5. The upper end of each brace-beam D is provided with a longitudinal slot D′, and the rod a of the body passes through the said slots in the brace-beams, as is best shown in Fig. 2. The slot D′ permits the brace to be moved outward on rod a from its folded position, and vice versa. Between the center and the inner or front end of the body a stirrup or bracket F is secured to the under face of each body-beam C, which brackets or stirrups are adapted to rest upon the window-sill, as shown in Fig. 2, when the chair is in use. An apertured bar I is secured to the inner face of each body-beam C, said bars extending from a point near the inner ends of the beams to a point near the connecting-rod a^2, and a clamp E is employed in connection with the body of the chair, comprising two parallel beams spaced by washers e a sufficient distance to permit the body-beam C to be passed between them, and the washers e are so placed that one is at or near each end of the clamp and one practically in engagement with the outer face of each body-beam C, when the clamp is in position upon the chair. The clamp is of much greater length than the width of the body, as is best shown in Fig. 1.

The brackets or stirrups F are adapted to bear upon the window-sill near the outer edge thereof, and the object of locating the brackets or stirrups between the center and inner

end of the chair is to shorten the purchase, since lightness and strength are equally required.

In operation the chair is taken, for instance, from the store-room closed, and is passed out of the window to be cleaned, the rear end foremost, the feet of the inner uprights A being supported upon the window-sill. By drawing the chair inward, the said uprights acting as a fulcrum, the uprights are brought to their normal or vertical position and the rails to their horizontal position. When the guard-rails have been thus adjusted, the chair is lowered until the body rests upon the window-frame, whereupon the lower ends of the brace-beams D will engage with the outer surface of the building and the guard-rails will be maintained in their upright position. As soon as the chair is adjusted it is drawn inward as far as possible, and the clamp E is passed over the inner end of the body until it engages with the inner surface of the window-frame, and is held in this position by passing pins G through apertures in the bars I adjacent to the clamp. It is obvious that when the chair is removed from the window the guard-rails are folded at the sides of the body by simply forcing the upper ends of the inner uprights A outward.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the platform or chair, of pivoted uprights at its outer end, inner uprights pivoted between their ends to the platform between its ends, longitudinal guard-rails pivotally connecting the upper ends of the inner and outer uprights, the brace-rods pivotally connected at their inner ends to the lower ends of the inner uprights and having a sliding connection at their outer ends with the outer end of the platform or chair, and means for securing the platform or chair in position, substantially as set forth.

2. A window-cleaning chair or platform consisting of a body-section, guard-rails pivotally attached thereto, brace-beams having a sliding connection with the rear end of the body and a pivotal connection with the forward uprights of the guard-rails, a clamp held to slide upon the forward end of the body, and a locking device engaging with the clamp, as and for the purpose set forth.

3. A window-cleaning chair or platform consisting of a body-section provided with brackets or stirrups upon its under face, located between the center and the inner end, uprights pivotally connected to the sides of the body, the forward uprights extending some distance below the body, rails pivotally attached to the upper portions of the uprights, brace-beams having a sliding connection with the rear end of the body and a pivotal connection with the lower extremities of the forward uprights, a clamp of greater length than the width of the body and adapted to slide upon the body, and locking devices engaging with the clamp, as and for the purpose set forth.

4. In a window-cleaning chair or platform, the combination, with a body comprising parallel side pieces and a flooring secured to the side pieces and extending nearly the length thereof, uprights pivoted to the sides of the body, the forward uprights extending some distance below the same, and rails pivotally connecting the upper ends of the uprights, of stirrups or brackets attached to the under face of the body between its center and inner end, brace-beams pivotally connected at one end with the lower extremities of the forward uprights and having a sliding connection with the rear end of the body, a clamp of greater length than the width of the body held to slide upon the side beams thereof, and locking devices, substantially as described, connected with the body and engaging the clamp, as and for the purpose specified.

ABNER BARNHART.

Witnesses:
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A. A. POPE.