(No Model.) 2 Sheets—Sheet 1.

C. B. PORTER.

WINDOW CLEANING SEAT.

No. 313,618. Patented Mar. 10, 1885.

FIG. 1.

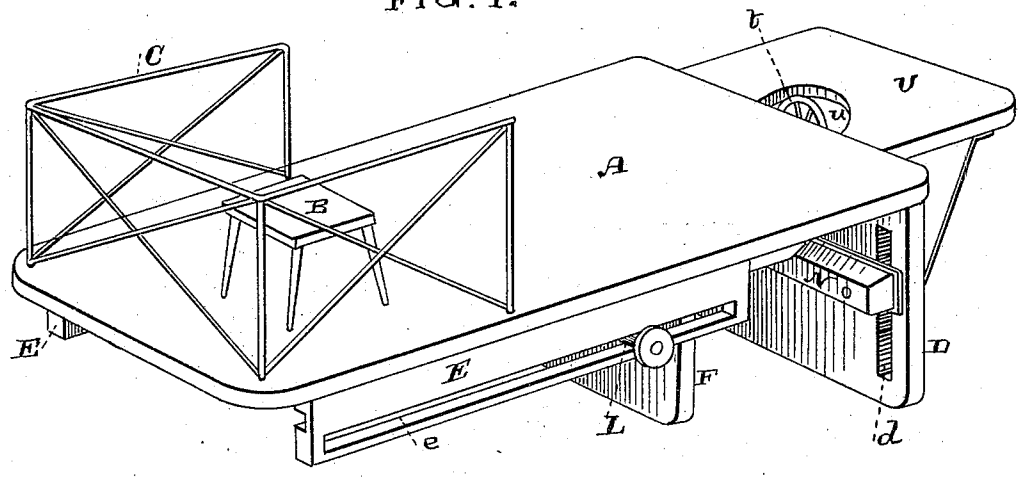
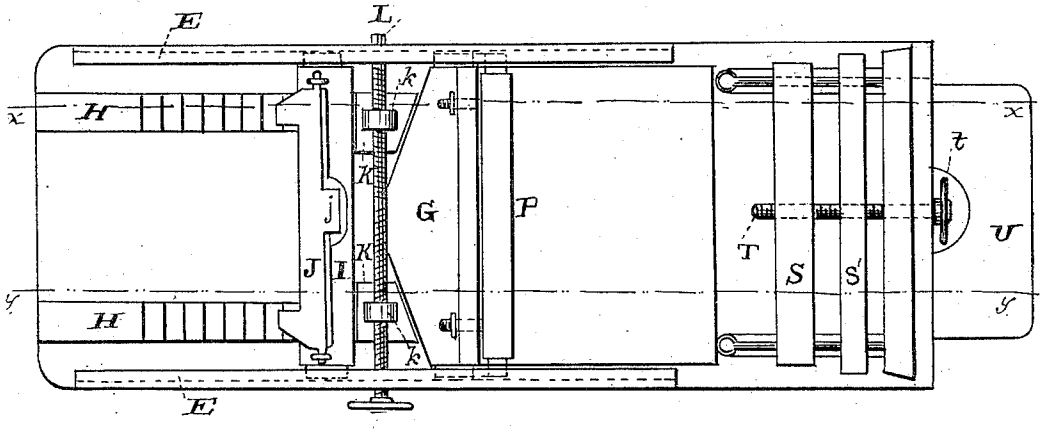


FIG. 2.



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(No Model.) 2 Sheets—Sheet 2.

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FIG. 3.

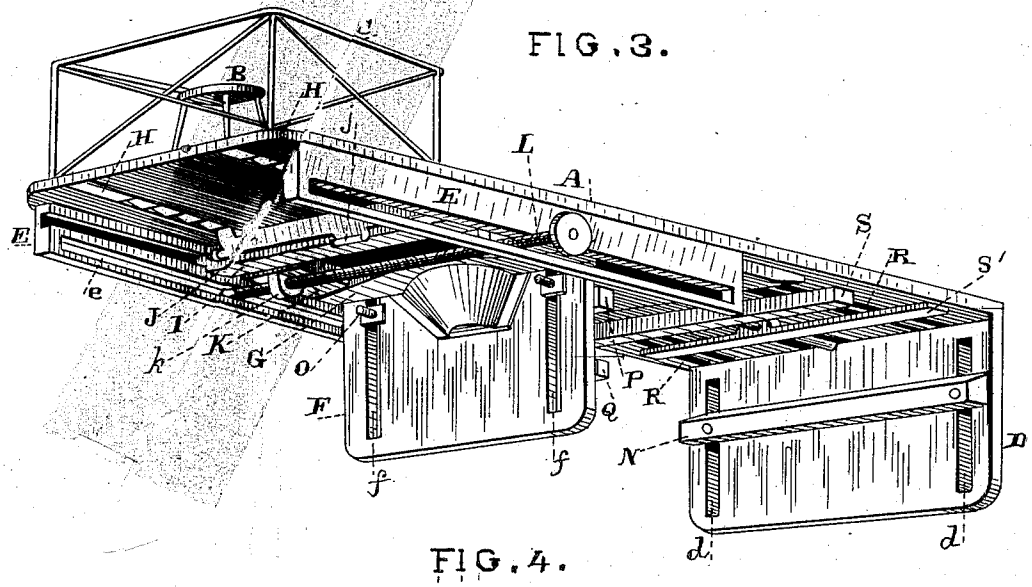


FIG. 4.

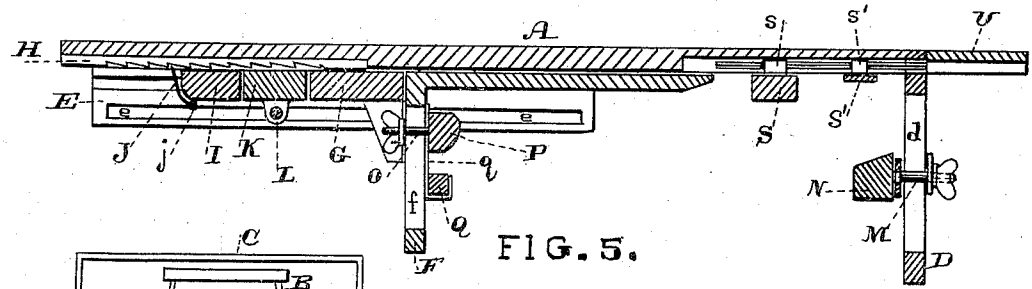
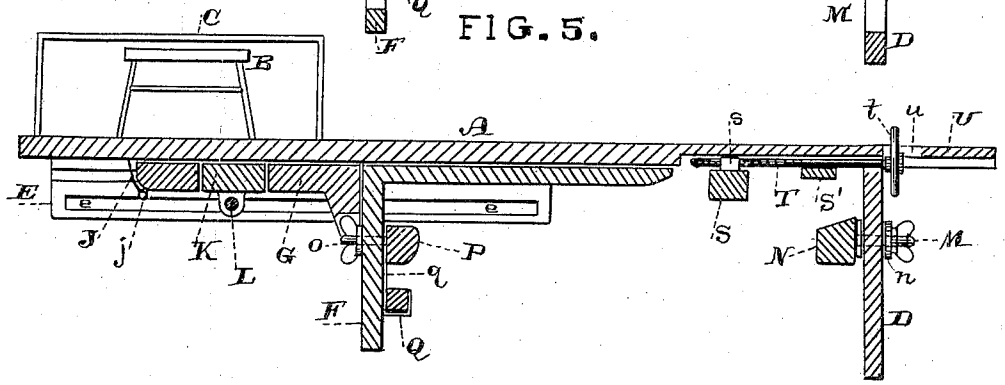


FIG. 5.



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UNITED STATES PATENT OFFICE.

CHARLES B. PORTER, OF SAN FRANCISCO, CALIFORNIA.

WINDOW-CLEANING SEAT.

SPECIFICATION forming part of Letters Patent No. 313,618, dated March 10, 1885.

Application filed December 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. PORTER, of the city and county of San Francisco, and State of California, have invented an Improvement in Window-Cleaning Seats; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in that class of window-cleaning platforms or seats in which two clamps are employed to bind the device to the window-sill; and my invention consists in a novel means by which the movable clamp is adjusted and held; in peculiar adjustable binding cleats or bars on each clamp, by which a proper bearing is secured on the various moldings or edges inside and outside of the sill; in adjustable and removable cross-bars on the bottom of the platform, by which the molding or cleat on the top of the window-sill is protected, and in various details of construction, all of which I shall hereinafter fully explain.

The object of my invention is to provide a platform or seat which is adapted to be secured to the window-sill in the most rigid manner possible, whereby the utmost security is afforded to the operator while in the performance of his work.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my improved window-cleaning device. Fig. 2 is a bottom plan view of the same. Fig. 3 is a perspective view looking toward the bottom of my device. Fig. 4 is a sectional view on the line *x x* of Fig. 2 and with the chair and railing removed. Fig. 5 is a sectional view on the line *y y* of Fig. 2.

A is the platform, on the outer end of which is secured the chair B, provided with the usual railings, C. To the inner end of the platform is rigidly secured, by bolts or angle-iron strips, or in any other suitable manner, the fixed clamp D. On the under side of the platform, on each edge, are two guide-strips, E, channeled or otherwise hollowed out for the purpose of confining and guiding the parts I shall now describe.

F is the movable or adjustable clamp, the top of which is at right angles, and its edges are guided by and slide in the guide-rails E. To the back of the clamp is firmly secured, by suitable braces or brackets, the double wedge seat-piece G. This consists of a suitable piece of metal or other suitable material, the rear edge of which is beveled toward each end, as shown. In the bottom of the platform are let the ratchet-strips H.

I is a buttress-piece, the ends of which are guided and confined in the channeled guides E, while on its back is pivoted a retaining-pawl, J, which is adapted to engage with the ratchet-strips H, whereby the buttress may be held to whatever position it is adjusted. The pawl has a central lug, *j*, by which its disengagement may be effected.

Between the buttress-strip and the wedge seat-piece G are the wedge-blocks K, the back edges of which are straight to conform to the forward edge of the buttress-strip, while their forward edges are beveled to conform to the inclination of the rear edge of the wedge seat-piece G. The wedge-blocks K are provided with threaded sockets *k*, through which a screw, L, passes. One-half of this screw has a right-hand thread, while the other half has a left-hand thread, and the sockets *k* are correspondingly threaded. The ends of the screw project into and through elongated slots *e*, made in the guide-strips E, whereby said screw is confined and guided and the wedge-blocks prevented from falling out.

The operation of the screw causes the two wedge-blocks to separate or to approach each other, according to the direction of revolution of the screw. When the blocks approach each other, they, acting against the wedge-seat G, force the adjustable clamp to its bearing, and there hold it rigidly. The separation of the blocks frees it from the binding effect of the wedges. The buttress-strip I may be set up to its position so that it will require but very little movement of the wedge-blocks to produce their binding effect upon the clamp, not only holding the clamp firmly to its bearing but against any twisting or oscillating movement, and the pawl J by engaging the ratchets H holds the buttress firmly to its position.

In the fixed clamp D are made elongated vertical slots, *d*, through which pass bolts, M, into a cross-cleat, N, on the inner face of the clamp, whereby said cleat is adapted to be vertically adjusted on the clamp.

The cleat N is for the purpose of binding under and bearing against whatever form of bead, panel, or molding may be on the lower inner side of the window-sill. The forms of these moldings or panels differ in so many cases that it may be found necessary to have on hand several of these cleats N of different shapes in the cross-section, so that the different forms of moldings or panels may be accommodated. In the present instance I have shown a beveled curved upper surface to the binding-cleat N, and a straight lower surface, which represent, probably, the most common forms which will be needed. The binding-cleat N, to use either surface has but to be taken out from its supporting-bolts and reversed, and if a different form need be used it can be substituted. The different widths of these moldings or panels must also be provided for, so that the cleat N may find as perfect a bearing as possible. For this purpose I introduce between the cleat and the clamp, and between the bolt-heads and the outer surface of the clamp, padding washers or strips *n*, which not only serve the purpose of washers, but also of throwing the cleat N a greater or less distance outward, to make its position conform as precisely as possible to the molding or panel against which it bears for the purpose of finding the most rigid seat.

In the movable clamp F are made elongated slots, *f*, through which bolts O pass into a vertically-adjustable binding-cleat, P, on the inner surface or face of said clamp. This cleat is for the purpose of finding a bearing on the upper surface of the outside edge of the window ledge or sill, and its shape in cross-section must conform to the shape of the said edge. In some cases it may be desirable to employ with this platform a stand or seat upon the inner end, in which case there will have to be a binding-cleat, Q, on the inner surface of the movable clamp which is adapted to find a bearing under the outside edge of the window ledge or casing. This cleat Q should also be vertically adjustable, which may be done by means of bolts, as heretofore described, or, in order to avoid the use of so many bolts, by means of the slotted brackets or arms *q*, secured to the cleat and passed upward behind the upper cleat P and over its bolts, whereby when said bolts are adjusted and tightened the slotted arms are also adjusted and tightened to hold the cleat Q to its position.

On the top of many window-ledges there is a strip continuing the rabbet, behind which the lower sash of the window finds a seat. If no provision were made by which this strip or bead would be protected, the pressure of the platform upon it would have a tendency to crush it. Besides, its presence in that position prevents the platform from finding a suitable bearing. To remedy this, I have the following: In the under surface of the platform, near its inner end, are made dovetailed grooves R, within which fit correspondingly-shaped studs *s* on a cross-bar, S, whereby said bar is adapted to be adjusted forward and back. This adjustment is accomplished by means of a screw, T, passing through the top center of the fixed clamp D and into the top center of the cross-bar S. This cross-bar is in a position to bind against the rabbet or strip or cleat on the top of the window-sill, and therefore serves the double purpose of affording additional clamping security to the platform, and also for protecting the said strip or bead on the window-sill. The different thicknesses of these strips or beads may render it necessary to have cross-bars of different thickness to correspond, and in order to substitute one for another they have only to be attached so as to be readily taken out of their grooves. But as additional means for leveling the platform I may have supplementary sliding strip-bars S′ of different thicknesses, which are adapted to rest on the ledge in front of the top strip or cleat. These strips have studs *s′*, which fit the grooves R.

The extension platform or stand, which may sometimes be used at the inner end of the device, as I have heretofore described, I represent by the letter U. It will be seen that this platform, near where it is secured to the main platform, has an opening, *u*, in it, through which the disk-shaped head *t* of the screw T may operate.

The operation of the device is as follows: It is first set upon the window-sill, and the buttress-strip I is set up as close to the wedge-blocks as may be desirable, and is held to its position by the pawl J. The screw L is then operated, whereby the wedges are caused to approach each other, which movement, as I have before described, causes the movable clamp to be set up and to bind itself against the outside of the ledge. The adjustable cleats N and P are then fixed to their position against their respective beads or moldings and are tightened thereto, and finally the cross-bar S is adjusted to its seat against the rabbet or top strip on the window-sill, when the whole device may be found to be rigidly secured, and may be used with perfect safety. It will be seen that in all parts of my device I secure the greatest practicable breadth of bearing-surface to obtain the firmest hold and avoid injury to contact surfaces or moldings.

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

1. In a window-cleaning seat or platform having a fixed and a movable clamp, the means for adjusting said movable clamp, consisting of a wedge-block operating behind the said clamp, substantially as herein described.

2. In a window-cleaning seat or platform having a fixed and a movable clamp, the means for adjusting said movable clamp, consisting of oppositely-moving wedge-blocks operating behind the movable clamp, substantially as herein described.

3. In a window-cleaning seat or platform

having a fixed and a movable clamp, the means for adjusting said movable clamp, consisting of wedge-blocks bearing against the back of the clamp, and a screw with right and left hand threads passing through the blocks, whereby they are moved in opposite directions, substantially as herein described.

4. The platform A, having the fixed clamp D and the movable clamp F, with the wedge seat-piece G on its back, in combination with the buttress-strip I, the wedge-blocks K between the seat-piece and the buttress, and the right-and-left-hand screw L, by which said blocks are operated to set up or relieve said clamp, substantially as herein described.

5. The platform A, having the fixed clamp D and the movable clamp F, with the wedge seat-piece G on its back, in combination with the adjustable buttress-strip I, the wedge-blocks K, having threaded sockets *k*, and the right-and-left-hand screw L, all arranged to operate substantially as herein described.

6. The platform A, having the fixed clamp D and the movable clamp F, with the wedge seat-piece G on its back, and the ratchet-strips H on the bottom of the platform, in combination with the sliding buttress-strip I, having swinging pawl J, adapted to engage the ratchet-strip, the wedge-blocks K between the buttress-strip and the wedge seat-piece, and having the threaded socket, *k*, and the right-and-left-hand screw L passing through said sockets, whereby the wedge-blocks are operated, substantially as and for the purpose herein described.

7. The platform A, having on its bottom the ratchet-strips H, and the channeled and slotted guides E on each edge, and the fixed clamp D on its inner end, in combination with the movable clamp F, confined and adapted to slide within the channeled guides, and having the wedge seat-piece G on its back, the buttress-strip I, confined and adapted to slide within said guides, and having the swinging pawl J for engaging the ratchet-strips, the wedge-blocks K, having threaded sockets *k*, and the right-and-left-hand screw L, passing through said sockets and confined and guided by the slotted guides, substantially as herein described.

8. In a window-cleaning seat or platform, the inner clamp, D, having vertical slots *d*, in combination with the binding-cleat N on its inner face, and the bolts M, passing through the slots and into the cleat, whereby said cleat is adjusted to its seat, substantially as herein described.

9. In a window-cleaning seat or platform, the inner clamp, D, having the vertically-adjustable binding-cleat N on its inner face, adapted to find a bearing under the bead, molding, or panel on the inside of the window-sill, in combination with the outer clamp, F, having the vertically-adjustable binding-cleat P on its inner face, adapted to bear on the upper surface of the outside of the window sill or ledge, substantially as herein described.

10. In a window-cleaning seat or platform, the clamps D F, and the vertically-adjustable binding-cleat Q on the inner face of clamp F, adapted to find a bearing under the outer edge of the window sill or ledge, in combination with the platform-extension U on the inner end of the main platform, substantially as herein described.

11. In a window-cleaning seat or platform, the clamp F, having the slots *f*, in combination with the binding-cleat P, bolts M, the binding-cleat Q, and the slotted arms or brackets *q*, secured to the cleat Q and embracing the bolts between the clamp and cleat P, substantially as and for the purpose herein described.

12. The platform A, having clamps D F, by which it is secured to the window-sill, in combination with the horizontally-adjustable cross-bar S under the platform, and adapted to protect the strip or molding on the top of the sill and to bind against it, substantially as herein described.

13. The platform A, having the grooves R, and the clamps D and F, by which it is secured to the window-sill, in combination with the cross-bar S, having studs *s*, adapted to fit and to slide in the grooves, and the screw T, by which said cross-bar is horizontally adjusted, substantially as herein described.

14. The platform A, having the grooves R in its under side, and the clamps D and F, by which it is secured to the window-sill, in combination with the leveling cross-strips S′, having studs *s*′, sliding in grooves R, said strips being adapted to bear on the sill inside of the top molding strip or cleat, substantially as herein described.

In witness whereof I have hereunto set my hand.

CHARLES B. PORTER.

Witnesses:
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H. C. LEE.