

(No Model.)

T. WELCH.  
WINDOW CLEANING CHAIR OR PLATFORM.

No. 590,924.

Patented Sept. 28, 1897.

FIG. 1.

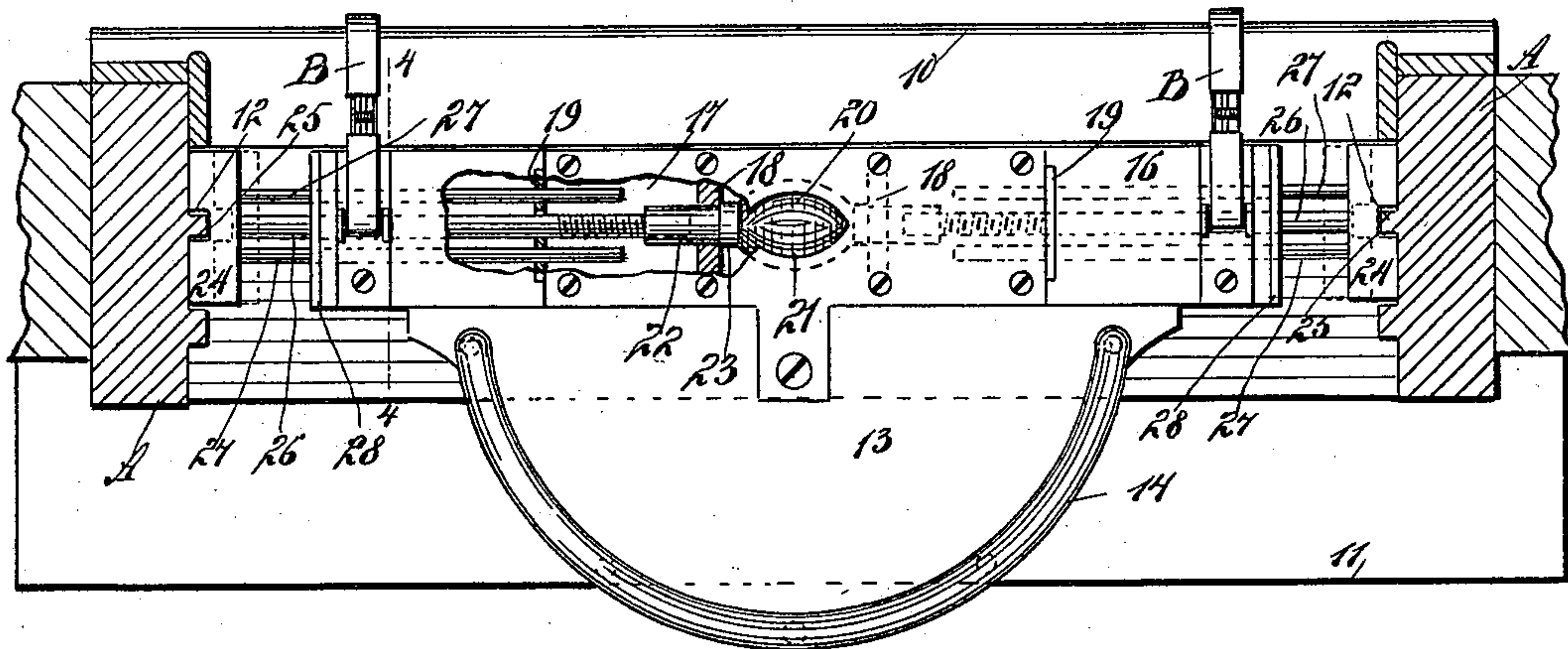


FIG. 2.

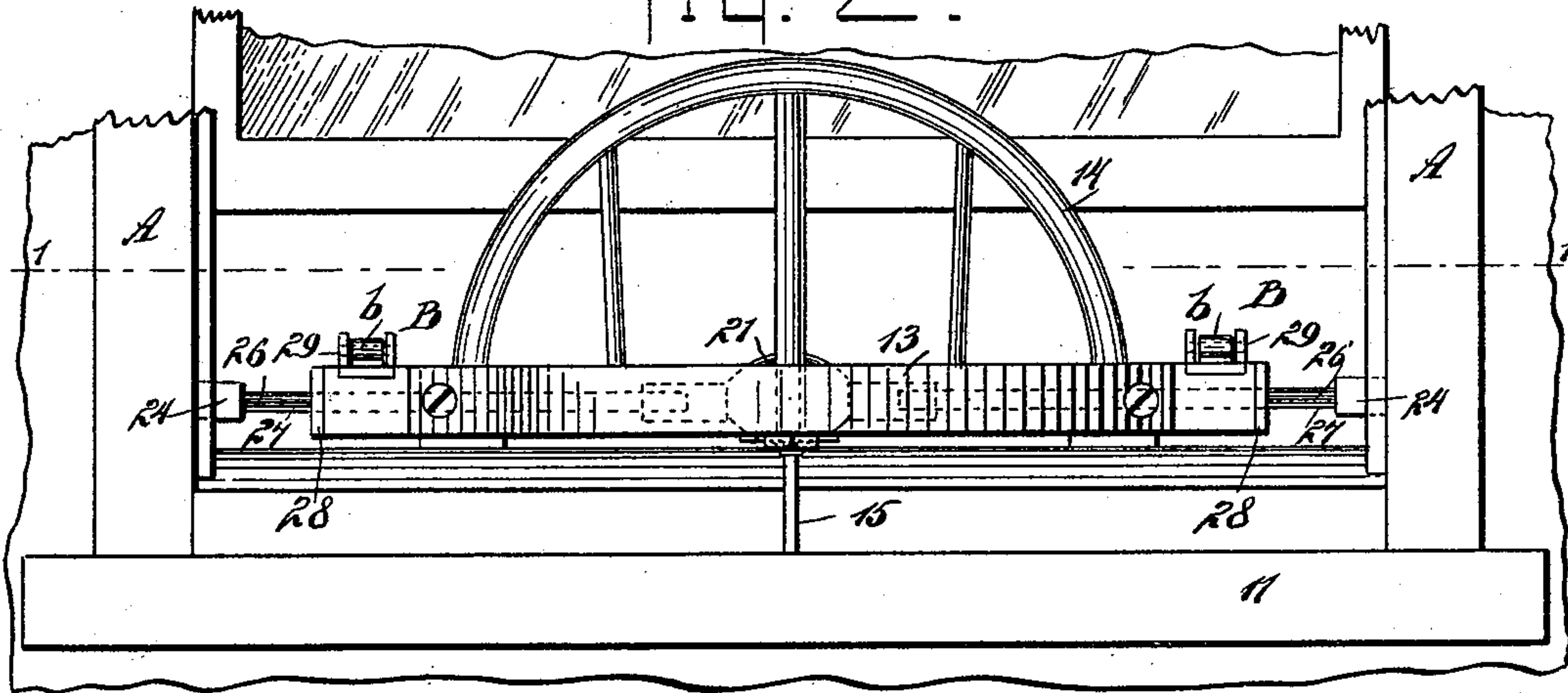


FIG. 3.

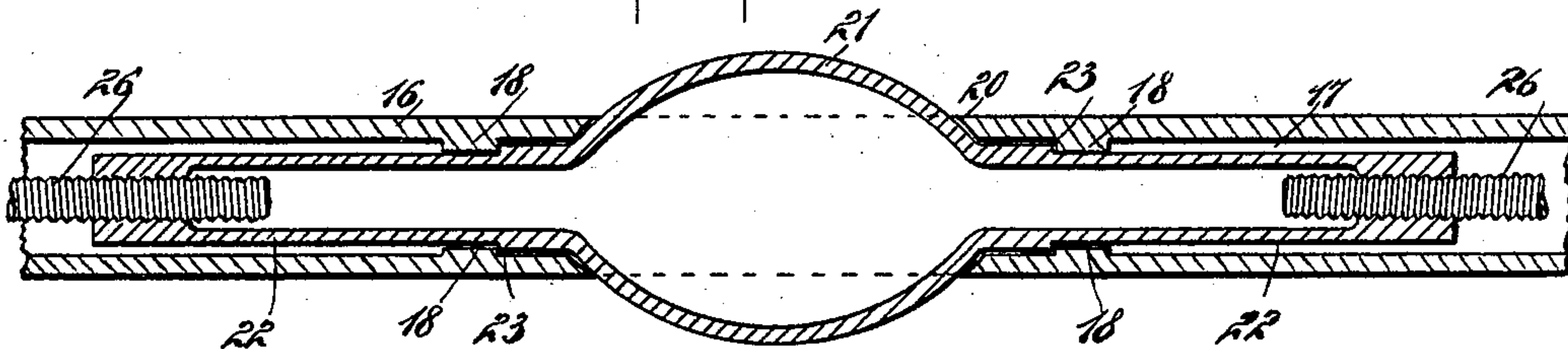
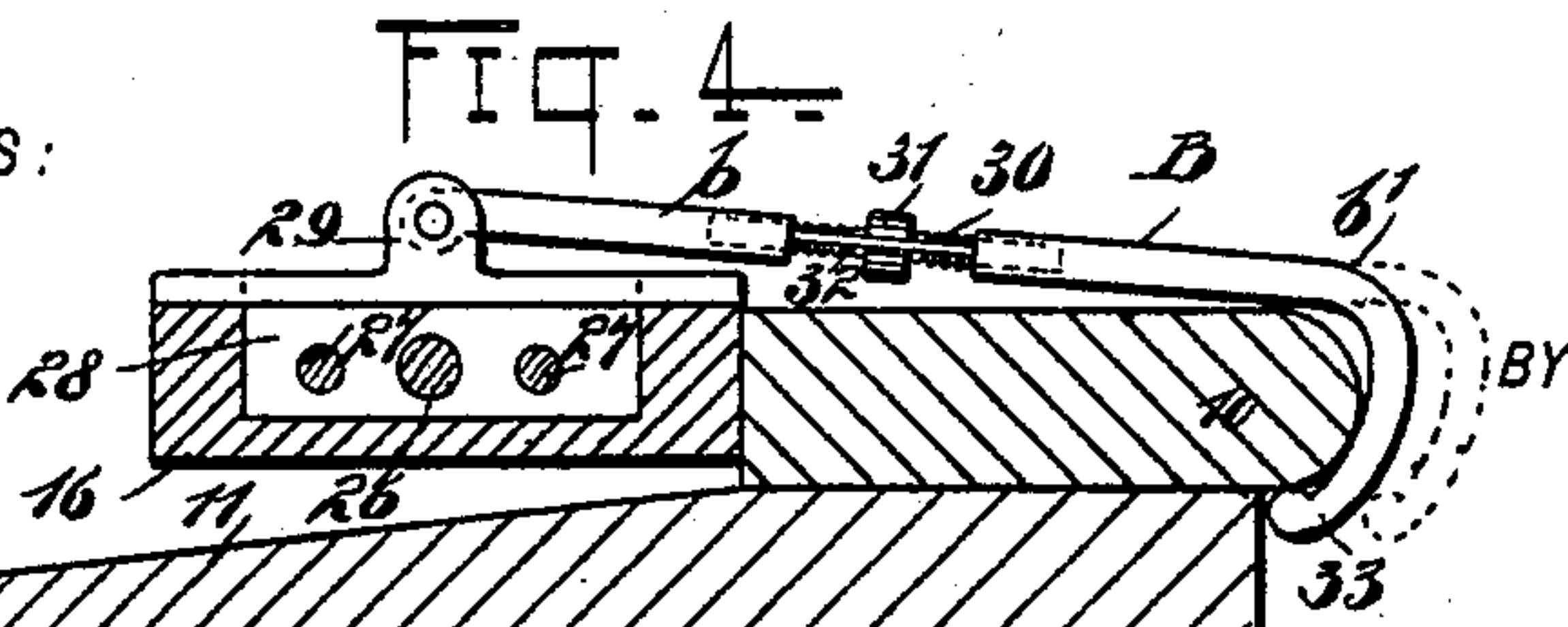


FIG. 4.

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# UNITED STATES PATENT OFFICE.

THOMAS WELCH, OF NEW YORK, N. Y.

## WINDOW-CLEANING CHAIR OR PLATFORM.

SPECIFICATION forming part of Letters Patent No. 590,924, dated September 28, 1897.

Application filed May 20, 1897. Serial No. 637,458. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS WELCH, of New York city, in the county and State of New York, have invented a new and Improved Window-Cleaning Chair or Platform, of which the following is a full, clear, and exact description.

The object of my invention is to provide a window-cleaning chair or platform which will be safe, simple, durable, and economic and which may be securely fastened to any window in a convenient and expeditious manner.

A further object of the invention is to provide a window-cleaning chair or platform which may be readily carried from one window to another or to any portion of a building.

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 characters of reference indicate corresponding parts in all the figures.

Figure 1 is a horizontal section through a window-frame, the section being taken on the line 1 1 of Fig. 2, and also a plan view of the window-cleaning chair in position in the window-frame, a portion of the chair being broken away. Fig. 2 is an outside view of a portion of the window-frame and a rear elevation of the window-cleaning chair in position in the frame. Fig. 3 is an enlarged detail sectional view of the adjusting device for the locking mechanism of the chair, and Fig. 4 is a transverse section taken substantially on the line 4 4 of Fig. 1.

A represents a window-frame having the usual inside sill 10 and in connection with which an outside sill 11 is used, the said frame being also provided with the usual division-beads 12, separating the sash-grooves. In the drawings I have illustrated the application of the invention to a chair which consists of a seat 13 and a back 14, a supporting-post 15 being attached to the bottom portion of the seat at the back adapted to rest upon the outer sill 11. An extension-bar 16 is attached to the front portion of the seat. This bar contains the adjusting mechanism and extends usually beyond the sides of the seat. The extension-bar 16 of the seat is pro-

vided with a longitudinal chamber 17, having tie or cross bars at each side of the central portion of said chamber and other cross-bars 19 between said bars 18 and the ends of the chamber.

An opening 20 is made in the top and the bottom of the extension of the seat, and usually these openings are of elliptical shape, as illustrated. At the opening 20 an elliptical nut 21 is exposed, terminating at each of its ends in a tube 22, located within said chamber. The tubes 22 are made somewhat thick at their ends, and in the end portion of one of said tubes an opening having a right-hand thread is provided and at the opposite end an opening having a left-hand thread in its wall is made. The tubular extensions of the nut 21 are passed through openings in the partitions 18, and the said tubular extensions of the nut have annular shoulders 23 formed thereon, engaging with the inner faces of the said partitions 18, as shown in Fig. 3, whereby the nut and its tubular extensions may be turned, yet these parts will be held against end movement. The peculiar shape is given to the nut 21 in order that it shall not interfere with a person seated in the chair.

In connection with the extension of the chair two clamping-shoes 24 are employed, and each shoe is provided with a recess 25, so arranged as to receive a parting or dividing bead of the sash-grooves of the window-frame, as illustrated in Fig. 1, and the shoes are of such length that they will fit snugly in the said grooves, having bearing against the outer stop-bead, as well as against the inner stop-bead of the frame. A screw 26 is secured to each shoe, usually at its center, and the thread of the screw on one shoe is a right-hand thread, while the thread of the screw on the other shoe is a left-hand one. These screws 26 are adapted to enter the openings in the extensions of the nut 21, having correspondingly-threaded walls.

Guide-rods 27 are located at each side of each screw 26, and these guide-rods and likewise the screws are loosely passed through openings in end plates 28, attached to the extensions of the chair and through corresponding openings made in the partitions 19 in the chamber 17.

Preferably near each end of the extension-



bars 16 of the chair ears 29 are formed, between which clamps B are pivoted. These clamps are made in two sections *b* and *b'*, connected by a right and left hand threaded screw 30, operated through the medium of a nut 31, as shown in Fig. 4, and the two sections are guided in their adjustment by rods 32, which are secured to one of the sections at each side of the adjusting-screw and enter openings in the opposing section. The outer section of each clamp B terminates in a hook 33 or is so formed that it may engage with the inner longitudinal edge of the inner window-sill 10.

It is obvious that by turning the adjusting-nut 21 in one direction the shoes will be forced to an engagement with the sides of the window-frame, and by turning the nut 31 in an opposite direction the shoes will be drawn inward and the chair may be disconnected from the window. The clamping-shoes 24 are usually sufficient to hold the chair in position in the window-frame, the clamps B being simply employed as additional means of safety. It will be understood that the shoes 24 may be so shaped and be of such dimensions as to fit between the stop-beads of any window-frame.

I desire it to be understood that any equivalent of the screw-adjusting device may be employed without departing from the spirit of the invention.

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

1. The combination with a window chair or platform, of a chambered extension thereon, a tube mounted to rotate in the extension, the said tube having threaded portions at its

ends, rods having threads engaging the screw-threads of the tube, and shoes on the outer ends of the rods, the said shoes being recessed to receive the parting-beads of a window-casing, substantially as specified.

2. The combination with a window chair or platform, of a chambered extension thereon, a tube mounted to rotate in the extension, a nut on the tube and projected through top and bottom openings in the extension, means for preventing longitudinal movement of the tube relatively to the extension, screw-rods operated by the tube and shoes on the outer ends of the rods, substantially as specified.

3. The combination with a window chair or platform, of a chambered extension thereon, a tube mounted to rotate in the extension, screw-threaded rods operated by the tube, shoes on the outer ends of said rods and guide-rods extended from the shoes through holes in end plates on the extension, substantially as specified.

4. The combination with a window chair or platform, of laterally-movable rods, shoes on said rods for engaging a window-casing, adjustable clamps for engaging the inner side of a window-casing, and guide-bars for the clamps, substantially as specified.

5. The combination with a window chair or platform, of clamps pivotally connected thereto, each clamp consisting of two sections, a screw for adjusting one section longitudinally with relation to the other section, and guide-rods for the adjustable section, substantially as specified.

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Witnesses:

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