



# UNITED STATES PATENT OFFICE.

ALBERT JOHN BEAVER, OF NEW KENSINGTON, PENNSYLVANIA.

## WINDOW-CLEANER.

SPECIFICATION forming part of Letters Patent No. 774,227, dated November 8, 1904.

Application filed November 3, 1903. Serial No. 179,696. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT JOHN BEAVER, a citizen of the United States, residing at New Kensington, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Window-Cleaners, of which improvement the following is a specification.

This invention relates to an improved apparatus for cleaning windows; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a perspective view of my improved device for cleaning windows, the same being constructed and arranged in accordance with my invention, the said view showing the apparatus placed in position on a window-sill, also a portion of one of the sash. Fig. 2 is a perspective view of the stationary clamp and guide detached from the other parts of the device.

To put my invention into practice, and thereby provide an apparatus simple and durable in construction for the purpose of cleaning the outside of windows, I form from suitable material a frame composed of two parallel side pieces 4, a handle 5, fitted at one end thereof, and a swinging arm 6, loosely journaled at the other, said arm having attached at the top a means 7 for holding a cloth, sponge, or other article used in cleaning glass. This frame rests upon a base-piece 9 and is confined in position by two vertically-arranged pieces 11 and also a strap 10 in a manner that will permit the said frame to be moved back and forward in the direction of its length. Attached to the arm 6 at a point near the top is a rope 13, which passes downward through a spring-guide 15, over a pulley 14, (see Fig. 2,) and through a groove 12, formed in the bottom of the base 9.

To operate my improved window-cleaner, the device is placed through the open window with the base-piece resting on the sill 1, as shown in Fig. 1 of the drawings. The sash 2 is then lowered and rests between the two uprights 11, which hold the device rigidly in position. If the arm 6 be in its elevated po-

sition, the operator pulls on cord 13 with one hand, grasping the handle 5 at the same time with the other hand. The pull on cord 13 draws arm 6 down, moving a cleaner to be carried in the holder over the pane 3, the outer end of frame 4 moving away from the window and handle 5 moving in toward the window. When the downward stroke of arm 6 is completed, the operator pulls on handle 5, thus moving it away from the window and drawing outer end of frame 4 toward the window, and during the time of the pull on the handle slack is given the cord 13, so that the arm 6 will be moved up to be again drawn down as aforescribed. In other words, a continuous seesaw movement is imparted to the frame and cord, and when one portion of the pane 3 has been cleaned the device is moved sidewise to bring the cleaner in contact with another portion of the glass. This operation is continued until the entire outside surface of the glass is cleaned. The apparatus may then be removed by elevating the sash sufficiently far to remove same from between uprights 11, when the device may be folded in compact form by lowering arm 6 onto the frame 4.

Various slight modifications and changes may be made in the details of construction without departing from the spirit of the invention. Therefore I do not wish to confine myself to the exact disclosure.

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

1. A window-cleaning apparatus comprising a base-piece, a pair of vertically-arranged members carried by said base to receive the window-sash therebetween, a frame mounted for reciprocation on said base, an arm pivoted in the outer end of said frame and carrying means at its upper end to hold a cleaning material, and a flexible connection with the arm, and passed through the base-piece for pulling the arm downward, as and for the purpose described.

2. A window-cleaning apparatus comprising a base, vertically-arranged members carried on the base to receive the window-sash

2  
therebetween, a frame slidable on the base,  
an arm pivoted to the frame and carrying  
means at its upper end for retaining the clean-  
ing material, said base carrying a roller and  
5 being grooved on its under side, and a rope  
secured to said arm passing over said roller  
and received in said groove of the base.

In testimony whereof I have hereunto signed  
my name in the presence of two subscribing  
witnesses.

ALBERT JOHN BEAVER.

In presence of—  
FRED O. HENZI,  
W. HUNTER.