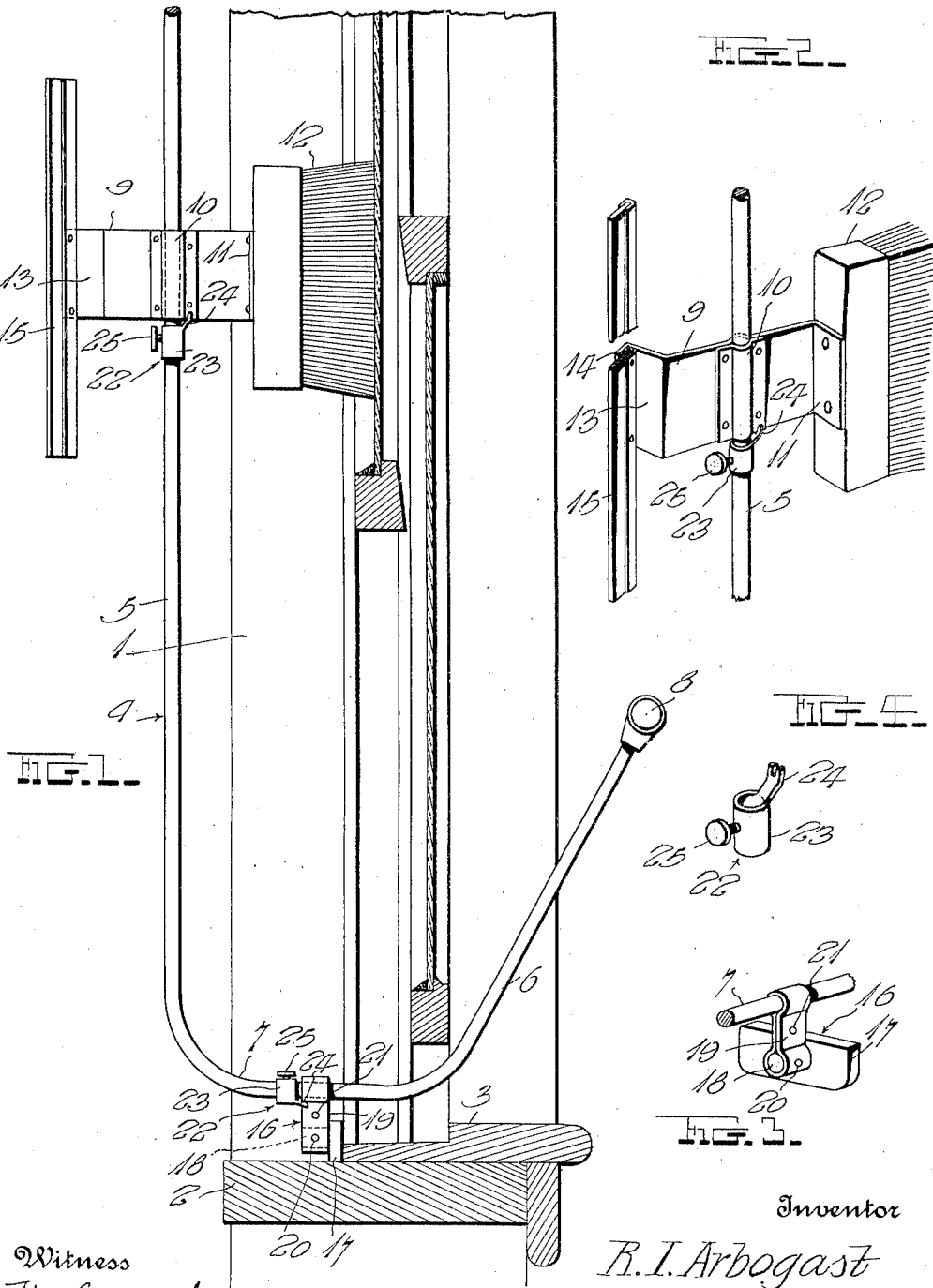


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 WINDOW WASHING APPARATUS.
 APPLICATION FILED AUG. 28, 1919.

1,334,209.

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WINDOW-WASHING APPARATUS.

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To all whom it may concern:

Be it known that I, ROLAND IVAN ARBOGAST, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Window-Washing Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in window washing apparatus.

The main object of the invention is to provide a window washer which may be easily manipulated to wash the outside surface of a window pane from the inside of the room without having to lean or hang out of the window, as is the usual practice.

Another object of the invention is to provide a device of the above mentioned character which is simple in construction, strong, durable, effective in operation and inexpensive to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a side elevation, partly in section, of a device constructed in accordance with my invention, illustrating the use of the same on a window.

Fig. 2 is a perspective view of the cleaning element.

Fig. 3 is a detail perspective view of the shoe.

Fig. 4 is an enlarged perspective view of one of the locking members.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention the numeral 1 indicates a window frame of the usual construction, which includes a sub-sill 2 and a window-sill 3.

The window washer comprises a substantially U shaped handle or support 4, which

by preference, is formed from a single piece of hollow pipe or the like and includes a vertical long-arm 5 for disposition outside of the window; a short arm 6 which is adapted to be disposed at the interior of the window or inside the room and a horizontal intermediate portion 7. The short arm 6 is provided with a hand grip 8 of any suitable construction.

The cleaning element comprises a metal cross-plate 9 which includes a relatively smaller clamping plate 10, whereby the said plates are permitted to rotate freely around the arm 5. One end of the plate 9 is bent at right angles to the body portion at 11 and has a brush 12 secured thereto in any convenient manner. The opposite end 13 of the plate is bent oppositely from the portion 11, the same being bent at an angle of about 60 degrees, and the extreme end 14 is bent from the portion 13 at an angle of about 90 degrees, a squeegee 15 being attached thereto in any convenient manner. Thus it will be seen that the brush 12 will be first used to wash the window and then, the squeegee brought into operative position.

I employ a shoe 16 slidable along the portion 7 of the handle, the said shoe acting as a bearing for the handle thus permitting the device to be moved from left to right or vice versa, along the sub-sill 2 and bearing against the sill 1. The shoe member includes a wooden block 17 which is provided with a round projection or neck 18, which is surrounded by a single metal plate or bearing 19, as shown, being fastened thereto by a pin or rivet 20 which extends through the said neck and plate.

The bearing plate 19 loosely surrounds the portion 7 of the handle, and thus permits the shoe to be moved horizontally and adjusted to the desired position. The bearing plate 19 may be secured together in any suitable manner, such as for instance by a rivet 21.

Locking members 22 are employed to hold the cleaning element in non-rotatable position, and to limit the sliding or rotary

movement of the shoe member 16. The construction of these locking members is shown in Fig. 4 in which, by preference, I employ a sleeve 23, a bifurcated lug or tongue 24, and a set-screw 25.

The operation of the device is as follows:—The brush 12 is dipped in a pail of water before the device is placed outside of the window. This may be done either by removing the brush and squeegee off of the handle or, the brush may be dipped while in position on the handle although the first method will be found to be more convenient. After the brush has been dipped and put in place on the handle, the long arm 5 will be placed outside of the window, the operator standing inside of the room. Of course, it will be necessary to raise the lower sash enough to permit this device to be brought into operative position. When in operative position the brush 12 should contact with the outer surface of the upper sash, which we will assume is now being washed, and the shoe 16 adjusted along the portion 7 of the handle to permit the brush to come into close contact with the glass. When in proper relation to each other the locking member or sleeve 22 should be brought into locking position, that is, the bifurcated lug portion 24 should straddle the cross plate 9, thus locking the cleaning element against rotation, and the shoe should be locked against sliding and pivotal movement in a like manner. When the device is in this position, as shown in Fig. 1, the operator will catch hold of the handle grip placing the brush and shoe 16 at the left side of the window sash, making sure that the shoe 16 and the brush 12 are in proper alinement with each other and are bearing on the subsill 2 and against the window-sill 1. Then by pulling the handle toward her and at the same time sliding it from the left toward the right and back again, a strip equal to the length of the brush will be cleaned. The window may then be lowered or raised as the case may be, and the operation continued until the entire window is washed. The operator may then reach out the window in the most convenient manner and lift the brush out of engagement with the locking sleeve 22 and swing or rotate the cross-plate 9 to bring the squeegee into contact with the window, thus removing the water by operating the device in the same manner as above described.

It is to be understood that the form of my invention herein shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, what I claim is:

1. A window washing apparatus comprising a substantially U-shaped handle, a portion of which is adapted to be disposed outside of the window, the other portion of which is adapted to be disposed inside of the window, the intermediate portion of the handle being substantially straight, a shoe rotatable and slidable on said straight portion of the handle and adapted to be slid across a portion of the window sill to move the cleaning element across the window pane, a locking collar rotatable and slidable on said straight portion of the handle, means coacting with the collar and the handle to retain the collar in a fixed position on the handle, and means carried by the collar and engageable with the shoe to prevent movement of the handle with respect to the shoe.

2. A window washing apparatus comprising a cleaning element, a handle for the cleaning element, a portion of said handle to be disposed outside of the window and a portion to be disposed inside of the window, a shoe carried by said handle and adapted to be slid along a portion of a window-sill, said shoe being slidable on said handle in a direction transverse to the window sash, and means to lock the handle against rotary movement with respect to the shoe, substantially as described.

3. A window washer comprising a substantially U-shaped handle, a portion of which is adapted to be disposed outside of the window, the other portion of which is adapted to be disposed inside of the window, the intermediate portion of the handle being substantially straight, a shoe slidable on said straight intermediate portion of the handle, said shoe including a bearing which surrounds said handle, and a depending leg which is connected to a block, said block being adapted to bear on and slide along a portion of the window-sill, and a collar surrounding said handle and having a bifurcated lug portion which is adapted to straddle the depending leg of the bearing and prevent slidable or pivotal movement of the handle with respect to the shoe.

4. A window washing apparatus comprising a handle, a cross-plate rotatably and slidably mounted on said handle, cleaning elements secured to the opposite ends of said cross-plate, a collar rotatably and slidably mounted on said handle, means coacting with the collar and the handle to retain said collar in a fixed position, and means carried by said collar and engageable with the cross-plate to prevent the latter from rotary or sliding movement on the handle.

5. A window washer comprising a sub-

stantially U-shaped handle, a cross-plate rotatable on said handle, a brush secured to one end of said cross-plate and a squeegee secured to the other end thereof, a shoe
5 slidably rotatably mounted on said handle, said shoe including a bearing and block, said block being adapted to slide along a portion of a window sill, and a pair of sleeves slidable on said handle, each sleeve
having a bifurcated lug portion, one of said 10 sleeves being adapted to engage and hold the cross-plate in operative position and the other sleeve engage with said bearing to prevent rotary movement of the handle with respect to the said bearing.

15 In testimony whereof I have hereunto set my hand.

ROLAND IVAN ARBOGAST.