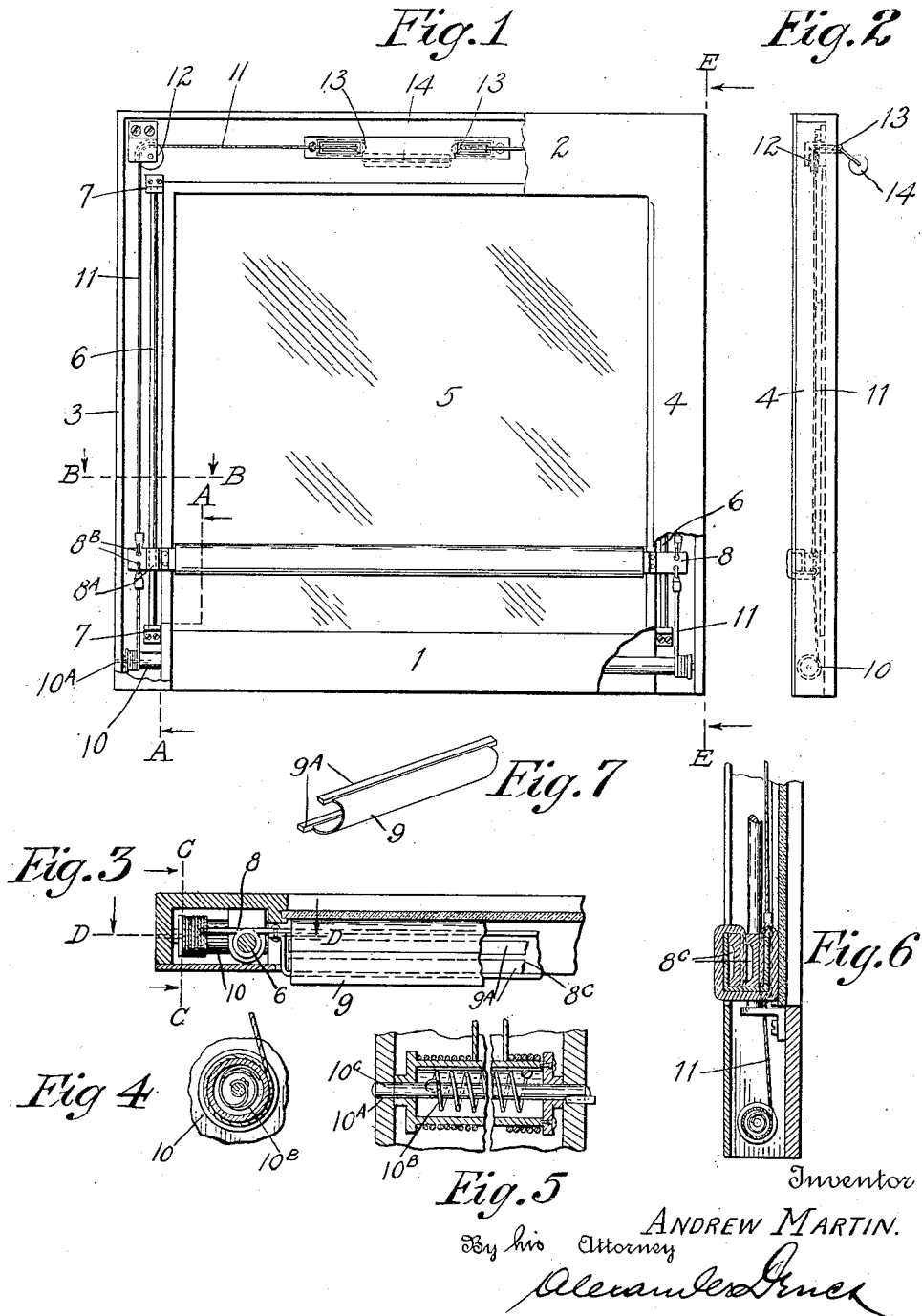


A. MARTIN.
WINDOW CLEANER.
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ANDREW MARTIN, OF NEW YORK, N. Y.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANDREW MARTIN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Window-Cleaners, of which the following is a specification.

This invention relates generally to window cleaners, the invention being particularly related to a window attachment which is ready for instant use for cleaning the window pane at any time desired.

A main object of this invention is to provide a window cleaning device, which is arranged for instant use at any time, and which is operable from the sheltered side of the window.

Another object is to provide a simple and inexpensive device, capable of cleaning the weather side of the windows of motor cars, street cars and like, and which may be manipulated by the car driver from his customary service position while the car is in motion.

With these and other objects, which will become manifest as the description advances, the invention consists in the details of construction, arrangement and combination of parts hereinafter described and shown in the accompanying drawings, forming part of this specification, and in which:—

Figure 1 is a view in elevation of the exterior of a window, parts being broken away, showing the invention applied;

Fig. 2 is a side elevation taken on the line E—E of Fig. 1;

Fig. 3 is a fragmentary sectional view, taken on line B—B of Fig. 1;

Fig. 4 is a detail sectional view, taken on line C—C of Fig. 3;

Fig. 5 is a detail sectional view, partly broken away and particularly illustrating the roller ends;

Fig. 6 is an elevational sectional view, taken on line A—A of Fig. 1;

Fig. 7 is a detail view of a removable type of cleansing material.

When a rain or snow is in progress or when the weather conditions are otherwise such as to cause the deposit of moisture and other foreign substance on the exterior surface of a window pane, it is frequently quite difficult and sometimes almost impossible for the driver of the car to see the track or roadway ahead. Because of the foreign substance thus deposited during inclement

weather, accidents are continually occurring which could be averted if means were at hand for the use of the driver whereby he could quickly clean the pane and obtain an unobstructed view.

My invention, therefore, has been designed and arranged to provide the driver with the means of procuring under all weather conditions, an unobstructed view through the pane, of the track or road; and by means of my invention, the driver can, from his accustomed place and without any interference with his other duties, remove at will and in a few moments any foreign substance that may gather on the exterior surface of the window pane.

Similar reference characters indicate corresponding parts throughout the several figures.

Referring more particularly to the drawings, the numerals 1, 2, 3 and 4 indicate, respectively, the sections of a window sash, while 5 represents the pane of glass held in the sash.

On each of the side sections 3 and 4, and parallel therewith is a guide rod 6. These rods are secured at their opposite terminal ends by fasteners 7 which are screwed fast to the sections, or by other suitable securing means. Slidably mounted on the guides 6 for vertical movement is a horizontal bar 8, the said bar being provided at each end with suitable apertures or bearings 8^A for the reception of the guide rods 6 as shown. When thus mounted on the rods 6, the bar 8 is adapted to be elevated and lowered in close proximity with the pane 5. The bar 8 is further prepared adjacent its terminal ends with apertures as 8^B for the reception of a cord to be hereinafter more fully referred to.

As shown in Figs. 3 and 6, the bar 8 is prepared with a longitudinal recess or channel 8^C, which is designed to serve a twofold purpose, when required. The channel 8^C affords a ready means, on the one hand, for removably securing to the bar 8 suitable pane cleaning material as 9, which preferably consists of a textile fabric adapted to take up a liquid by molecular action, although in some instances rubber or some other resilient but relatively hard material may be used with advantage.

For the purpose of removably securing it to the longitudinal bar 8, I prefer to provide the pane cleaning material on its opposite longitudinal ends with strips as 9^A.

By this arrangement, it will be seen that the cleaning material 9 may be quickly and removably secured to the bar 8 by encircling the said bar with the material and then inserting the longitudinal strips 9^A in the recess 8^C. When thus arranged on the bar 8, the cleaning material extends behind the said bar and is held between the same and pane 5, so that when the bar is elevated or lowered the cleaning material comes into resilient contact with the surface of the window pane.

When absorbent cleaning material is used, I contemplate filling the channel 8^C with a clear water-proof liquid (such liquid now being manufactured and obtainable). As the cleaning material 9 is partly immersed in the liquid, it will absorb some of it, so that when the bar 8 is elevated and lowered, the surface of the pane will be thinly coated with the liquid, thereby rendering the surface of the pane for a period of time, substantially rain-proof. When it is desired to use a rubber cleaner, it can, of course, be inserted in the channel 8^C, and secured therein by a strip as 9, already described.

10 indicates a spring actuated roller which is journaled in bearings as 10^A provided in section 1 of the window sash. A helical spring 10^B, mounted around the axis 10^C of the roller, is preferably used as the spring actuating means; one end of said spring being secured to the axis 10^C, while the other end is secured to the interior surface of the roller in the usual manner.

Wound around the opposite ends of roller 10 is a cord or other drawing means as 11, the free ends whereof are clipped into the lower eyelet 8^B of bar 8 on each end. To the upper eyelet 8^B of bar 8 on each end, is also secured the free ends of a similar cord line 11 which after passing through the pulley guides 12 which are located preferably in section 2 of the sash as shown, and also after passing through the transverse apertures 13 in said section 2, unite to form a drawing handle as 14.

When the handle 14 is drawn or pulled

downward or inward by the driver or occupant on the inside of the car, the bar 8, carrying the window cleaner 9 is drawn on the outside to the top of the window, removing from the glass any foreign substance that may have been desposited thereon. At the same time, the handle 14 is drawn inward the spring 10^B is wound up. Upon release of the handle by the operator, the spring, of course, draws the cleaning portion back to its normal position, and also rewinds the cord line for the next operation.

While I have shown and described the preferred form of my invention, it will be obvious that various changes in the details of construction may be made, to which changes I am entitled, provided I do not depart from the scope of the appended claim.

Having thus described my invention, what I claim is:—

In a device of the character described for use in connection with window sashes combined with a pane, a horizontal spring actuated roller adapted to have its axis journaled below the pane in the sash, said roller being formed with flanges on its opposed ends, guide rollers adapted to be secured in the sash one on each side of the pane above and at right angles to said roller, a bar approximately equal in length to the roller slidable on the guides in parallel relation to said roller, said bar being formed with a longitudinal channel in its top, said channel being adapted to contain a liquid, a textile adapted to absorb liquid by molecular action mounted around the bar, with a portion immersed in the liquid, means for clamping the textile in the channel, means adapted to wind upon the flanged ends of the roller connecting said ends with the ends of the bar beyond the outer sides of the rods, and means connected with said bar opposite said connecting means for elevating the bar from the roller, as and for the purposes described.

In testimony whereof, I have signed my name to this specification.

ANDREW MARTIN.