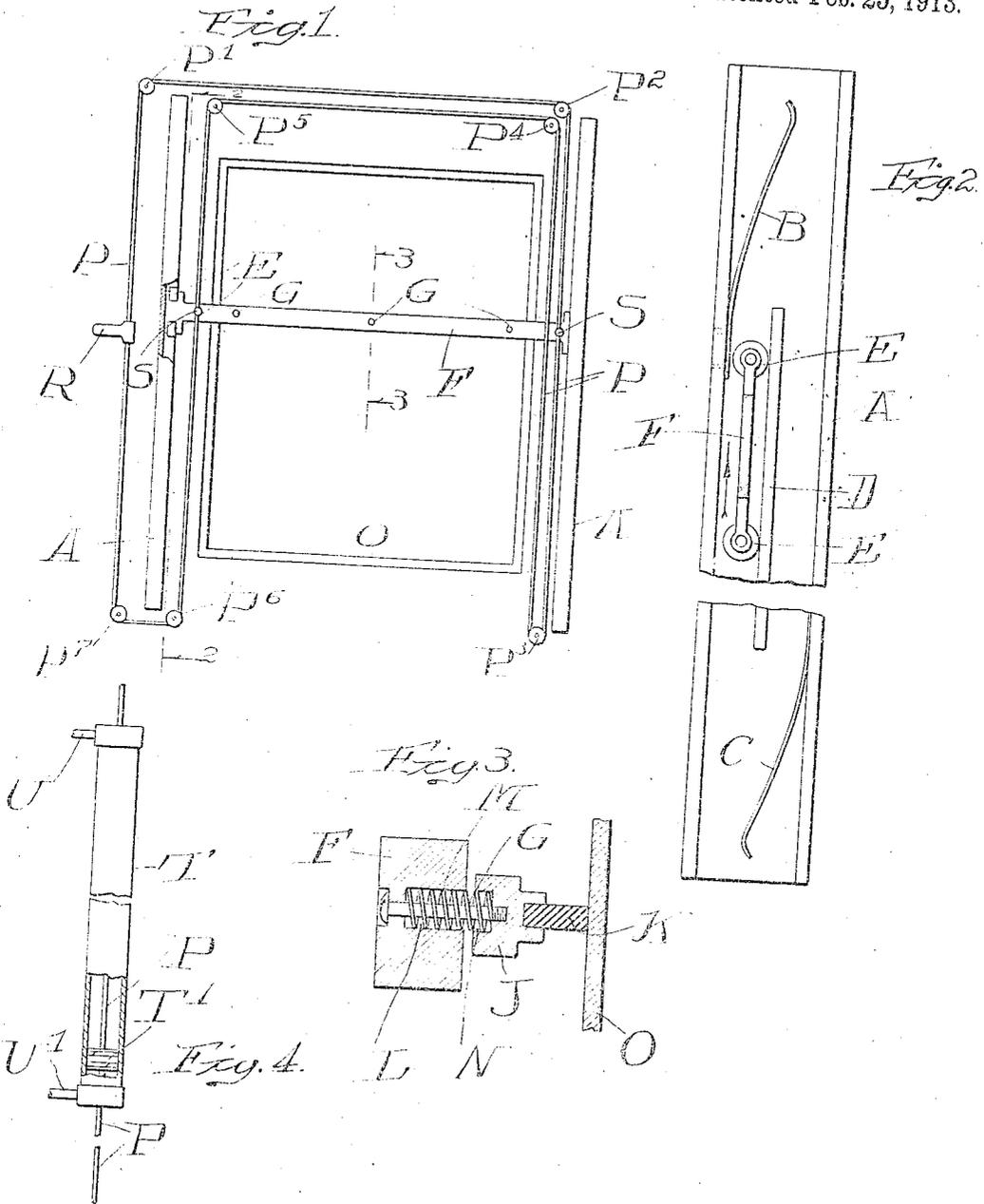


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WINDOW CLEANER.

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1,054,053.

Patented Feb. 25, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

CYRUS G. TALBOT AND HARRY CUPPLES, JR., OF CHICAGO, ILLINOIS.

WINDOW-CLEANER.

1,054,053.

Specification of Letters Patent.

Patented Feb. 25, 1913.

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To all whom it may concern:

Be it known that we, CYRUS G. TALBOT and HARRY CUPPLES, JR., citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Window-Cleaners, of which the following is a specification.

Our invention relates to devices for cleaning windows, particularly for cleaning the front windows of cars so that the driver can have a broad view of the road in front of him.

It is illustrated in the accompanying drawings, wherein—

Figure 1 is an elevation; Fig. 2 a vertical section on the line 2—2; Fig. 3 a section on the line 3—3; Fig. 4 a detail modification.

Like parts are indicated by the same letters in all the figures.

A, A are guides channeled as indicated in Fig. 2 and provided at top and bottom with oppositely positioned springs B and C. Midway between these springs is the flange D on which travel the wheels E E on the ends of the cross-bar F. Projecting from the cross-bar are a series of bolts G G each screw-threaded onto or otherwise connected with a cleaning-bar J from which projects the rubbing strip K. Each of the bolts G projects through a pocket L in the cross-bar F and is surrounded by a spiral spring M seated in a pocket end in the cross-bar F.

O is the window glass.

P is a cord which passes over the pulley P¹ across the top of the window over the pulley P² down the side of the window about the pulley P³ and about the pulley P⁴, thence across the top of the window over the pulley P⁵ and down about the pulley P⁶ across and up and about the pulley P⁷. It is provided with a handle R. This cord is attached at S S to the ends of the cross-bar F. In lieu of the handle R we may employ the cylinder T having within it the piston U, at the top and bottom of which is attached the cord P. The cylinder has in-leading air pipes U U.

The use and operation of our invention are as follows: Assuming that the window

in question is that in front of the driver of a car and that the cross-bar, cleaning-bar and rubbing strip are properly mounted on the outside of the window, the handle R or the pneumatic controller will be operated until the cross-bar is at the top of the window. At this point it is pressed by the spring B toward the glass so that the rubbing strip K is firmly but yieldingly forced against the surface of the glass. If now the handle R be raised, the cord will begin to travel and it will carry the bar and associated parts downward, pressing the rubbing strip against the glass and cleaning the same. As the downward motion of the bar continues it is forced against the spring C, and as soon as its wheels escape from the flange D the spring C will force it downwardly or away from the glass. If now the motion of the handle be reversed, the cross-bar and associated parts will rise, but they will be held by the flange D away from the surface of the glass. The cleaning is done on the down stroke and not on the up. To attempt to do it on the up stroke where water is present is disastrous to the result desired. If the pneumatic controller is used as illustrated in Fig. 4, the operator will simply turn the valve, throwing the compressed air first into one end and then into the other end of the cylinder.

It is obvious that we have not shown all of the parts in full detail or all of the associated parts, and it is also obvious that many changes could be made in the shape, size, operation and arrangement of the parts without departing from the spirit of our invention.

We claim:

A cleaning device for windows and the like comprising a pair of parallel guide troughs located on either side of a window, the guide troughs being so arranged that their open sides face toward each other, a partition wall located centrally in each of said troughs to divide it into parallel grooves, said partition wall terminating short of the ends of the troughs, spring fingers projecting inwardly from the outer walls of said troughs, one at one end and one at the other

end in opposite directions, said fingers extending out beyond the partition wall in either case, carriages provided with wheels riding within the grooves in the guide troughs, a cross-bar connecting said carriages and holding them in fixed parallel position and means for moving said car-

riages in unison back and forth within said guide troughs.

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