No. 825,379. PATENTED JULY 10, 1906.

W. H. CLARKE.

EXTENSIBLE WINDOW WASHING DEVICE.

APPLICATION FILED FEB. 12, 1906.

FIG. 1

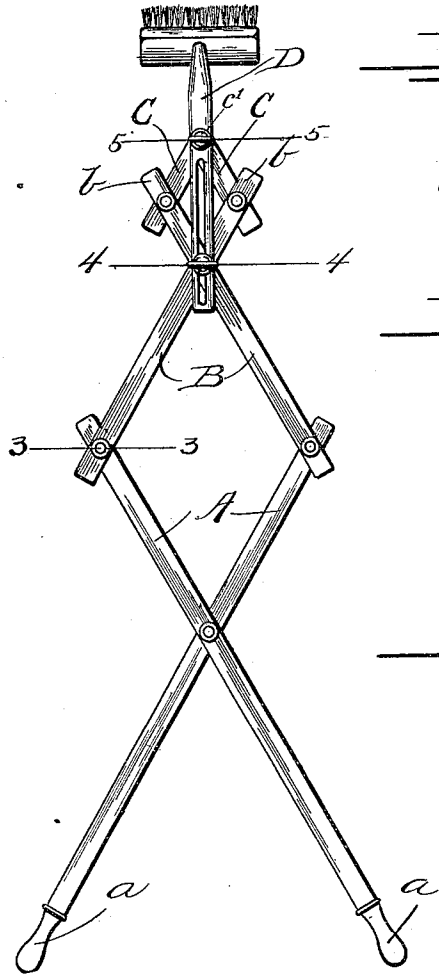


FIG. 2

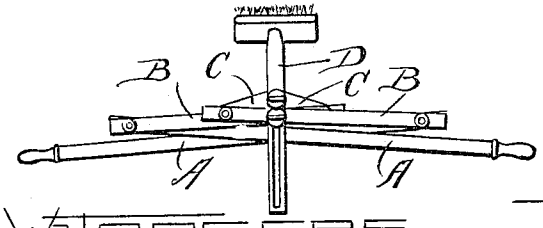


FIG. 3

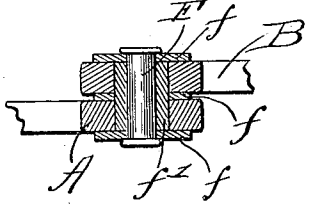


FIG. 4

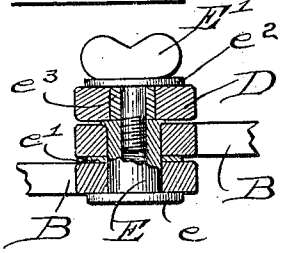


FIG. 5

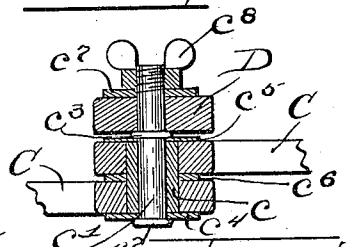
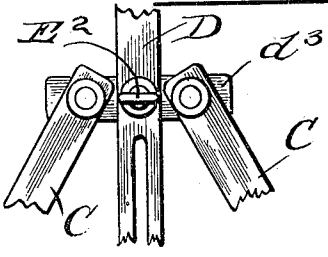


FIG. 6



Witnesses

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EXTENSIBLE WINDOW-WASHING DEVICE.

No. 825,379 Specification of Letters Patent. Patented July 10, 1906.

Application filed February 12, 1906. Serial No. 300,641.

To all whom it may concern:

Be it known that I, WILLIAM H. CLARKE, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Extensible Window-Washing Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to extensible window-washing devices, and more particularly to a window-washing mechanism adapted for use for washing the windows from the floor of the building.

Usually in washing windows a brush or squeegee is attached to a long pole or handle to enable the operator to reach to the top of the window, and in the case of plate-glass windows in store-fronts the extremely long pole or handle necessary to enable the operator to accomplish the work prevents successful use during the day. This is so inconvenient that in many cities ordinances provide that windows shall be washed only between certain hours in the morning to prevent interference with passers-by.

The object of this invention is to provide a window-washer of such construction as to enable the operator to use the same without interference with the passer and yet enabling him to reach the top of the glass and all parts of the same as readily as those portions of the glass nearer the ground and at all times enabling him to adapt the length of the handle of the window-washer to the height of the operation.

It is also an object of the invention to provide a cheap, simple, and easily-operated device of the class described adapted when not in use or when working near the ground to collapse to very small space.

The invention consists in the matters hereinafter described, and more fully pointed out and defined in the appended claims.

In the drawings, Figure 1 is a view in elevation, showing the device partly extended. Fig. 2 is a similar view showing the device collapsed. Fig. 3 is an enlarged section taken on line 3 3 of Fig. 1. Fig. 4 is an enlarged section taken on line 4 4 of Fig. 1. Fig. 5 is a similar section on line 5 5 of Fig. 1. Fig. 6 is a fragmentary detail illustrating a slightly-modified construction.

As shown in the drawings, the device embraces an extensible handle adapted to receive a brush, squeegee, or other device adapted to be detachably engaged thereon and which of course may be of any desired kind or character. Said handle comprises two levers A, laid one upon the other and pivoted together intermediate their ends and provided at their outer extremity with handles *a* for manual engagement. Their inner or upper ends, which, as shown, are somewhat shorter than the lower, are pivotally engaged with corresponding but shorter crossed levers B, which are likewise mutually pivoted one on the other and the length of which below the pivot to the point of pivotal engagement on the levers A is equal to the length of the upper ends of said levers A.

The upper ends *b* of the levers B are relatively short, and pivotally engaged therewith are relatively short bars or strips C, which at at their meeting ends are pivotally engaged together by means of a sleeve *c*, through which extends a pivot-bolt *c'*. Said bolt *c'* is provided with a head c^2 and a collar c^3, which respectively bear on suitable washers c^4 and c^5 on opposite sides of the bars C and, together with the washer c^6, affords a simply-constructed pivot-joint. The outer end of said screw-bolt projects beyond the face of the bar C and is threaded at its outer end and is provided with a washer c^7 and thumb-nut c^8 to engage the brush-handle D thereto. Said brush-handle, as shown, is slotted from near the aperture for said bolt *c'* to near the lower end thereof to receive a pivot-bolt engaged in the rivet pivotally connecting the levers B. Said rivet, as shown, comprises a cylindric shank E, provided with a head *e* on one end thereof and at the other end, after passing through suitable apertures in said levers B, and is upset or closed down, as shown in Fig. 4, to hold the same in place, (though serving as a pivot,) and, as shown, a washer *e'* is provided between said bars. Said rivet is tubular and internally screw-threaded, and engaged therein and passing through the slot in said handle D is a set-screw E', provided with a suitable washer e^2, which engages against the handle D. As shown, a roller or sleeve e^3 is provided on the set-screw in said slot to facilitate freedom of movement of the

handles. The extremities of said levers and the central pivot for the handles are connected together by means of rivets F, which pass through the washers f and a sleeve f'.

The operation is as follows: The rigid handle D may be quickly detached from the extensible handle by removing the thumb-screws and slipping the handle therefrom, and inasmuch as the said handle D is provided with a tapered outer end the same is adapted to be used with any of the ordinary constructions of squeegees or brushes usually employed in window-washing or like purposes. It is obvious that the short handle D alone may be used, or if the height is such as to render that too short then it is secured, by means of thumb-screws, upon the extensible handle, as shown in Fig. 1, and the latter operating as lazy-tongs enable the brush or squeegee to be operated either at full length of the extensible handle or said extensible handle may be shortened sufficiently to not exceed the reach of the rigid handle D. Owing to the very simple, light, and strong construction of the handle alternately swinging the handles a outwardly and inwardly produces a vertical reciprocating motion, and the brush or squeegee can be applied with considerable pressure, effectively accomplishing the work. After the operation is completed the extensible handle is contracted, as shown in Fig. 2, by either removing the handle D or by releasing the thumb-screw E to permit said handle D to swing into alinement with the levers in the collapsed form. Obviously any desired number of pairs of levers affording lazy-tongs may be employed and the same may be of any desired material.

Preferably and as shown the upper ends of the levers B and the corresponding bars C are relatively short to enable a relatively short slotted handle D to be employed, thus enabling the device to be contracted to operate in a minimum space, although affording maximum extension.

In the construction shown in Fig. 6 a short transverse bar d^3 is secured at its ends to the ends of the bars C, and the thumb-screw E^2 for the upper end of the rigid handle is secured thereto.

Obviously details of construction may be varied without departing from the principles of my invention.

I claim as my invention—

1. An extensible handle for window-washers embracing a plurality of levers joined together to afford lazy-tongs, those at the upper end being short and a short handle detachably engaged at the upper end thereof.

2. An extensible handle embracing lazy-tong levers and a short rigid handle pivotally engaged at the outer end and slidably engaged at its inner end.

3. A window-washing device embracing an extensible and retractible handle adapted for manual operation and embracing a plurality of jointed sections, a straight handle connected at the common pivot of one section and slidably engaged at the pivot of another and a washing device detachably engaged at the extremity of said straight handle.

4. In a device of the class described a plurality of pairs of crossed and mutually-pivoted levers, metallic pivot-pins engaging the ends of those of one pair with the corresponding ends of a succeeding pair, the uppermost pair being relatively short, a slotted handle pivotally engaged at the joint for the short pair and slidably engaged at the joint for the next succeeding lower pair, a washing device at the extremity of said handle and a removable pivot-bolt adapted to engage said handle to the extensible handle.

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

WILLIAM H. CLARKE.

Witnesses:
W. W. WITHENBURY,
WM. C. SMITH.