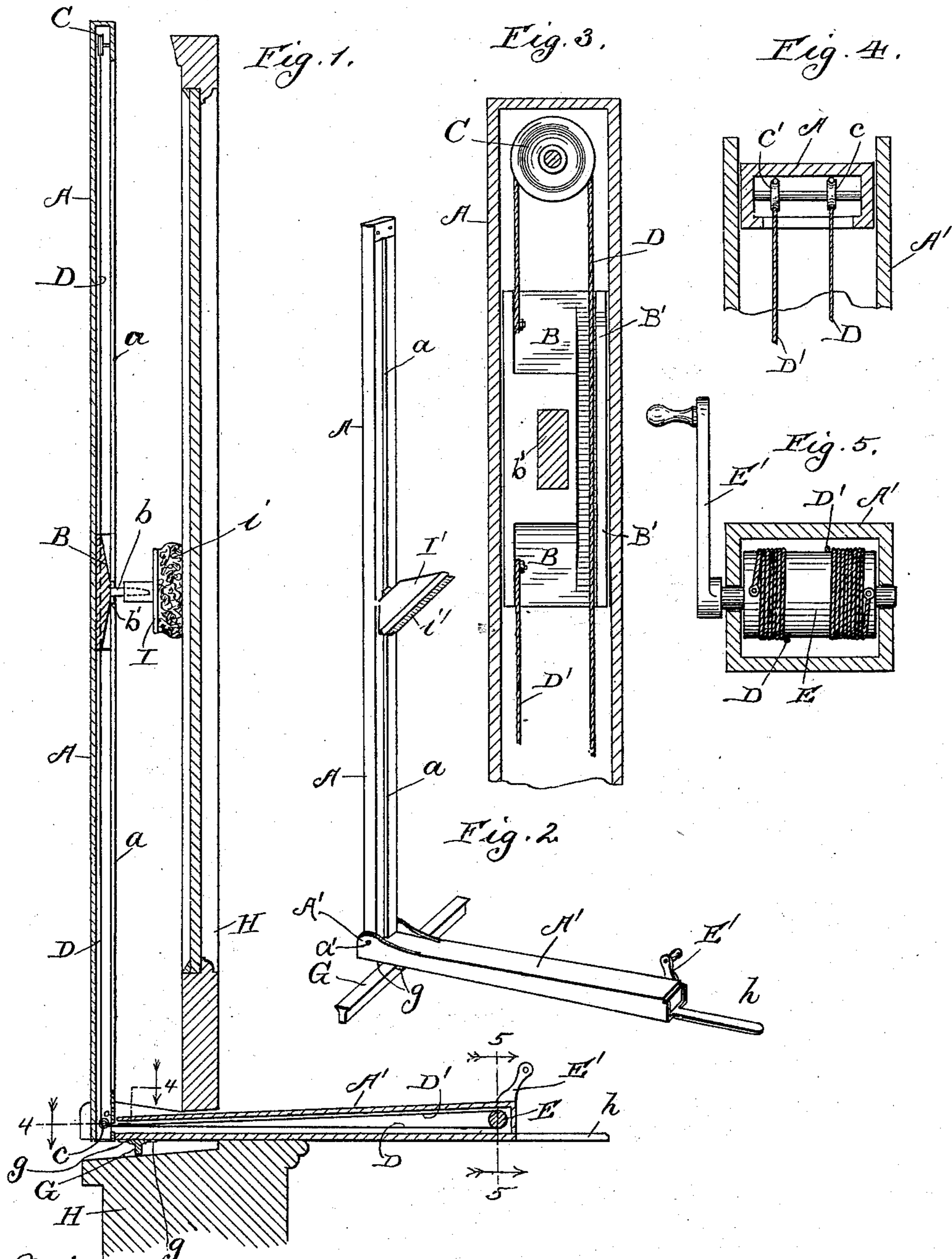


(No Model.)

J. RUDE.  
WINDOW CLEANER.

No. 591,142.

Patented Oct. 5, 1897.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN RUDE, OF CHICAGO, ILLINOIS.

## WINDOW-CLEANER.

SPECIFICATION forming part of Letters Patent No. 591,142, dated October 5, 1897.

Application filed April 1, 1896. Serial No. 585,683. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN RUDE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented certain new and useful Improvements in Window-Cleaners, of which the following is a specification.

This invention relates to improvements in devices to be used for cleaning windows, such  
10 as are more especially designed to be employed for cleaning the outer surfaces of windows, thus allowing the operator to remain inside without subjecting himself to exposure and the danger of falling from the win-  
15 dow-sill; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

20 In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

25 Figure 1 is a vertical sectional view of a portion of a window-casing, showing my cleaner in position and ready to be used for washing the outer surface of the glass. Fig. 2 is a perspective view of the cleaner detached  
30 from the window, showing it provided with a wiping attachment. Fig. 3 is an enlarged sectional view of the upper portion of the cleaner, showing the follower suspended on a pulley. Fig. 4 is a sectional view taken on  
35 line 4 4 of Fig. 1, showing the lower portion of the cleaner; and Fig. 5 is a cross-sectional view taken on line 5 5 of Fig. 1, showing the operating-drum and the cords for moving the follower which carries the cleaning device  
40 wound thereon.

Similar letters refer to like parts throughout the different views of the drawings.

45 A represents an upright or standard which may be made of any suitable size and material, but is preferably rectangular in shape and of wood. This standard is hollow and is provided in its inner side with a longitudinal slot *a*, through which a pin or projection *b* on  
50 the follower B extends and operates, said pin being seated in a rectangular lug *b'*, rigid with the follower, (see Fig. 3,) and which lug travels in the slot *a*. At one side of this lug

the follower is provided with an upright groove B' for a purpose to appear below. The standard A is pivotally secured at its lower 55 portion to the horizontal base-piece A', which is likewise hollow and usually rectangular in shape in cross-section. The pivot is formed by laterally-projecting stub-shafts or pins *a'* in opposite sides of the standard, which enter ears A<sup>2</sup>, rising from the base A' at points 60 above the line of the upper face of said base. By this construction is produced a knuckle-joint enabling the standard to be folded back flat upon the base when the device is to be 65 stored away or to be raised to vertical position at right angles with the base when it is to be used, as seen in Fig. 1, at which time pressure upon the inner end of the base will obviously bear the upper end of the standard, 70 and hence the cleaning devices, inward toward the window.

In the upper end of the standard A is located a sheave C, over which passes a cord or belt D, one end of which is secured to the up- 75 per part of the follower B, the body thereof passing thence downward through the groove B' and the other end being attached to the drum E, which is journaled within the inner end of the base-piece A' and is provided with 80 a crank-handle E' for turning the same.

In the lower portion of the standard A are located two sheaves *c* and *c'*, under and with which the cords or belts D and D' pass, as shown in Figs. 1 and 4 of the drawings. The 85 cord D' is secured at one of its ends to the lower portion of the follower B and at its other end to the drum E, whereon it is wound in such a manner that it will unwind therefrom while the cord D is being wound thereon, 90 or vice versa. The main objection to devices of this character now in use is that where they rest on the window frame or sill they are likely to make dirty or greasy marks, and especially when the device is moved laterally to bring 95 the cleaning portion to another part of the window-pane the support is apt to scratch the paint on the frame or sill, which latter is often of galvanized iron painted to resemble stone. Even a wheeled support would leave its un- 100 sightly marks, and a plurality of supports prevents the rocking of the window-cleaning machine to and fro, as is necessary to bear the washing devices properly against the out-

side of the pane. In order to overcome these objections, the lower outer portion of the base-piece A' is provided with two cleats forming a transverse groove *g*, in which is fitted for lateral movement a brace G, which is used to rest on the outer surface of the window-sill H to aid in holding the base A' in a horizontal position. On the pin *b* of the follower may be secured a socketed piece I, carrying a sponge *i*, to be used for washing the window-pane, or a similarly-formed piece I', provided with a flexible piece *i'* when it is desired to wipe or dry the window-pane.

From the foregoing and by reference to the drawings it will be clearly understood that by raising the window-sash H' the standard A may be placed in a vertical position on the outside thereof, when the base A' will rest on the base of the window-frame and may be held in a horizontal position by means of the brace G, which will rest on the inclined or outer part of the sill, as is clearly shown in Fig. 1 of the drawings, at which time the washing devices will contact with the outer face of the pane. When, however, it is desired to move the machine laterally, the handle *h* is raised slightly, and this movement lifts the base A' off of the window-frame entirely and rocks the machine over the brace G as a pivot or fulcrum support. The entire device is then moved laterally to the desired position, the cleats forming the groove *g* sliding easily along the head of the T-shaped brace G. Thus it will be seen that there is absolutely no frictional movement over the base of the window-frame nor over the sill which would mar either in the least. The only contact of these parts is when the base A' rests on the frame and where the long brace G rests upon the sill. Said brace is usually furnished in a strip, which is cut off by the user to the proper length to fit upon the sills of the windows in his building, and when not in use the brace is removed longitudinally from the groove and stored away with the remainder of the machine. A socketed piece I, carrying a sponge *i* or other device saturated with water, may then be placed on the pin *b* of the follower, when, by drawing the base-piece inwardly and bearing the same downward by the handle *h* the sponge *i* will be caused to forcibly contact with the outer surface of the glass and can be raised and lowered thereon by turning the crank-handle E' to revolve the drum E in the proper direction, which operation will cause one of the cords or belts D and D' to be wound thereon and the other one unwound therefrom,

thus raising or lowering the follower B, which carries the sponge or wiping or drying device. 60

As the standard A is pivotally secured to the base A', it is apparent that the two pieces may be folded together when desired, thus placing the parts in a compact and convenient form. 65

The tube B' guides the central portion of the cord or belt D and prevents it from interfering with the follower or retarding the vertical movements thereof. The lug *b'*, which travels in the slot *a*, prevents lateral or undesirable movements of the cleansing or wiping devices; but a most important part of my invention is the brace G, which is of substantially T-shaped cross-section, the head of the T sliding loosely between the cleats *g* and its stem resting firmly upon the sill without marring or scratching the latter. When it is desired to bring the cleaning devices to another part of the window, the base-piece A' is raised slightly at its inner end, which lifts it off the base of the window-frame and throws the standard outward, rocking the whole over the brace G as a pivot, and the base A' is then moved laterally, as desired, (the cleats *g* sliding upon the brace G,) after which the parts are returned to their original positions and the operation of cleaning the window is resumed. It will be obvious that for windows with sills of different inclinations braces G of different heights may be employed, so long as their heads fit loosely between the cleats *g*. Whatever brace is used it is removed by withdrawing it laterally from the cleats when it is desired to fold the machine for storage. 95

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

In a window-cleaner substantially as described, the combination with a standard, a base-piece, a knuckle-joint connecting its outer end to the lower end of the standard, cleaning devices sliding vertically in the latter, a windlass in the base-piece, and connections between the windlass and cleaning devices for causing the vertical reciprocation of the latter; of two cleats secured transversely beneath the outer end of the base-piece, and a brace T-shaped in cross-section whose head is loosely clamped between the cleats and whose stem rests upon the window-sill, as and for the purpose set forth. 100 105 110

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