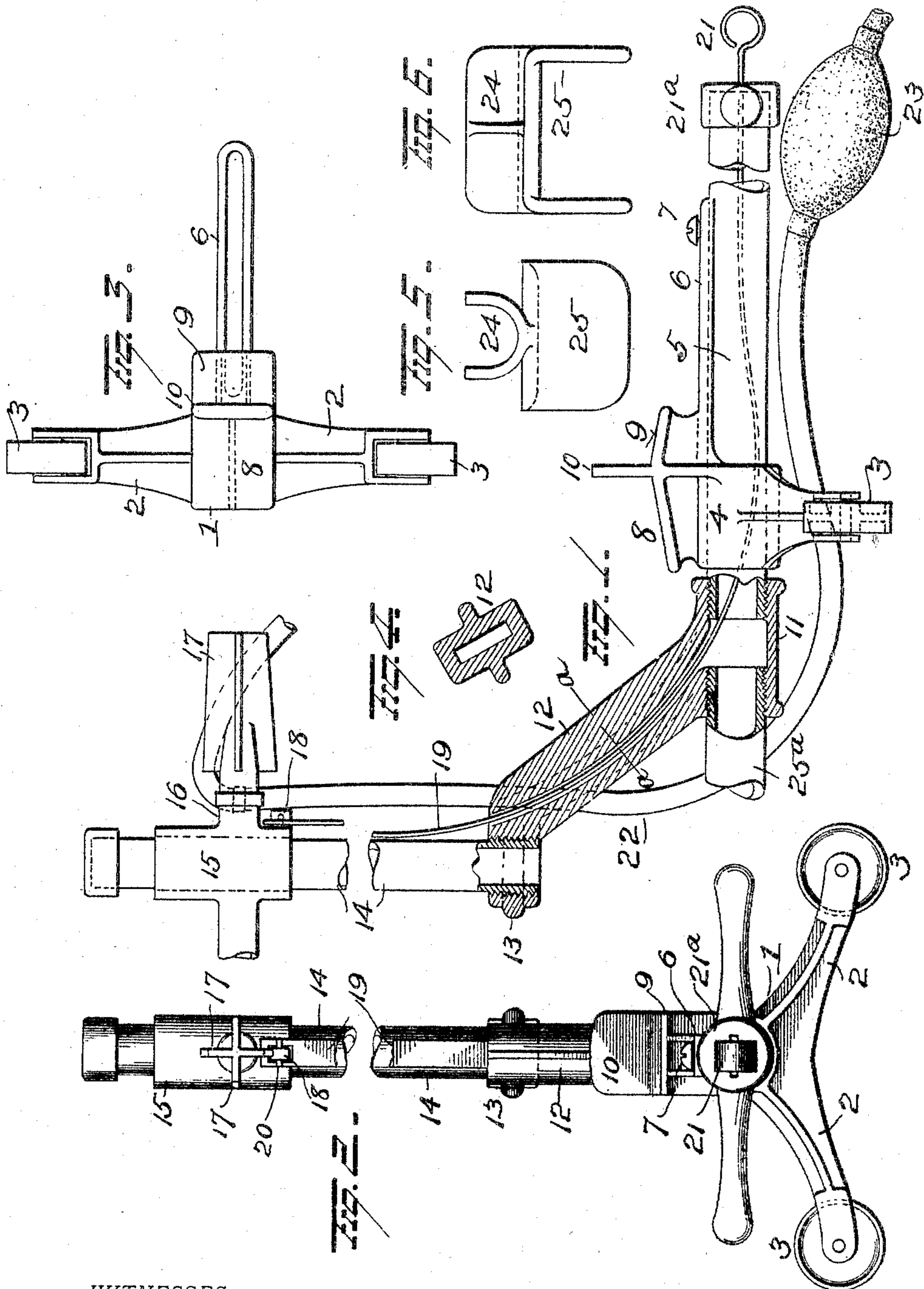


No. 784,127.

PATENTED MAR. 7, 1905.

W. SMITH.
WINDOW CLEANER.

APPLICATION FILED MAR. 6, 1902. RENEWED JAN. 27, 1905.



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WINDOW-CLEANER.

SPECIFICATION forming part of Letters Patent No. 784,127, dated March 7, 1905.

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To all whom it may concern:

Be it known that I, WILLIAM SMITH, a resident of Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Window-Cleaners; and I do hereby 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.

My invention relates to an improvement in window-cleaners, the object of the invention being to provide improvements of this character which will permit the outside of windows to be easily cleaned by a person inside the room and without raising the sash but a short distance and, further, to provide a cleaner which will be extremely simple in construction, comparatively cheap to manufacture, and easy to operate to effectually clean the window.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figures 1 and 2 are views of the device, taken at right angles to each other, Fig. 1 being partly in section. Fig. 3 is a top view of the carriage. Fig. 4 is a view in section on the line *a a* of Fig. 1, and Fig. 5 and Fig. 6 are views of rests for use in cleaning transoms and the like.

1 represents a carriage made with straddled legs 2, carrying rollers 3 to run on the window-sill and carry the cleaner across the window-frame. The carriage 1 is made with a central sleeve 4 to support a horizontal tube 5, projecting outside the window and adjustably secured to a slotted arm 6 on the carriage by means of a headed screw 7, located in the slot and screwed into the tube, hence permitting longitudinal movement of the tube, but preventing rotary movement thereof. The top of the carriage is made in the form of two slightly-inclined platforms 8 and 9, respectively, separated by a vertical partition 10, and in cleaning a window the sash is lowered onto one of these platforms and against par-

tion 10 to hold the carriage against possibility of tilting over or falling.

The outer screw-threaded end of tube 5 is screwed into a sleeve 11, integral with and located at an angle to a hollow ribbed bar 12, disposed at an incline or angle to the tube 5, and has screwed into a threaded collar 13 at its upper outer end a vertical rod or standard 14. On this vertical rod, which may be of any desired length, a tubular slide 15 is mounted, and to an arm 16 on the same a cleaner 17 of any approved construction is secured. The slide 15 is made with an angular lug 18 to enter an angular opening in one end of a flat metal strip or rod 19, the strip or rod being secured on the lug by a pin 20, passed through the latter, as shown. This strip or rod 19 extends down through hollow bar 12, tube 5, and a slotted cap 21^a on the inner end of the latter and is provided with a handhold 21 to facilitate the movement of the strip, and hence the raising and lowering of the cleaning devices.

In operation a rubber or other hose 22, having a bulb 23 to force the water therethrough, is passed beneath the legs of the carriage and thence up to and supported by the cleaning devices and held in convenient position to direct the water against the window.

The operation of my improvements is as follows: The window-sash is raised to receive the carriage and then lowered onto one of the platforms 8 or 9 and the carriage moved to one side of the window. Then by pulling and pushing the strip or rod 19 the cleaning devices can be drawn up and down the outside of the glass, and as the carriage is moved from one side of the window to the other the entire window can be effectually cleaned and dried by means carried by the slide 15.

In cleaning transoms, third windows, and the like I preferably support the tube 5 in a trough-shaped bearing 24 on a bracket 25, made with parallel wings to overlap the transom or window-frame.

Into the outer threaded end of sleeve 11 and in alinement with tube 5 a tube 25^a is screwed, and the carriage can be removed from the po-

sition shown in Fig. 1 and placed on this tube 25^a when it is desired to clean the inside of the window, and in such event the cleaning devices will be in a position reverse to that shown, and the window-sash can be brought down upon a platform, as above explained.

The headed screw 7 may be dispensed with when desired, so that the operator can turn tube 4 to move the cleaning devices about the window of irregular shape.

A great many other changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise construction set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

A window-cleaner, comprising a carriage mounted on rollers and adapted to be moved along a window-sill, platforms on the carriage to receive the window-sash, a tube supported by said carriage and projecting beyond the same at both ends, a slotted arm on the carriage and a screw in said tube and located in the slot, devices carried by the outer end of the tube for cleaning the window and a strip or rod in said tube for operating said devices.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM SMITH.

Witnesses:

S. H. ECKMAN,
ELLA POWERS.