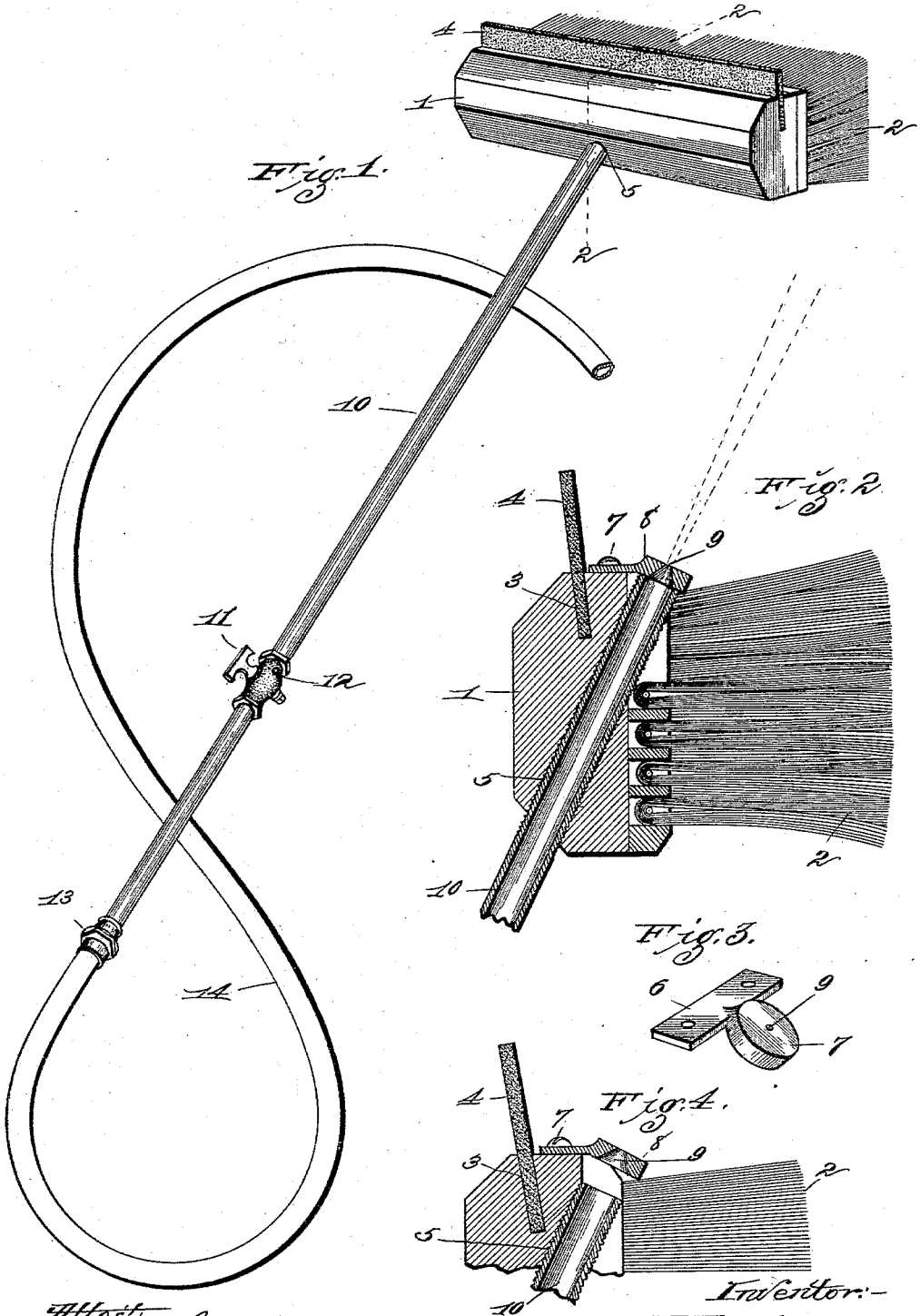
(No Model.)

W. H. FORD.

DEVICE FOR CLEANING WINDOWS.

No. 556,722. Patented Mar. 17, 1896.



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UNITED STATES PATENT OFFICE.

WILLIAM H. FORD, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO A. E. GEIGER, OF SAME PLACE.

DEVICE FOR CLEANING WINDOWS.

SPECIFICATION forming part of Letters Patent No. 556,722, dated March 17, 1896.

Application filed March 7, 1895. Serial No. 540,913. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FORD, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Devices for Cleaning Windows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a device for cleaning windows; and it consists in the novel construction, combination and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a view in perspective of my complete device. Fig. 2 is a cross-sectional view on the indicated line 2 2 of Fig. 1. Fig. 3 is a view in perspective of a nozzle-plate of which I make use in carrying out my invention. Fig. 4 is a sectional view analogous to Fig. 2 and showing the brush of the device so located upon the tube as that water may be freely discharged from the upper end of said tube.

Referring by numerals to the accompanying drawings, 1 indicates the back of the brush, which may be of any size and form desired and provided with bristles 2 in the usual manner. Extending longitudinally the entire length of the back 1 and in the top edge thereof is a slot 3, in which is located and held in any suitable manner a strip of rubber or analogous material 4, the same projecting a slight distance beyond the upper face of the back 1.

Passing diagonally through the back 1 from the outer lower corner to the upper inner corner thereof and at a point approximating the longitudinal center of said back is a screw-threaded bore or passage 5.

6 indicates a metallic plate that is held by means of screws 7, or in any suitable manner, to the top face of the back 1 and in the longitudinal center thereof. Formed integral with the forward edge of this plate 6 and located at such an angle thereto as that it will be at right angles to the screw-threaded bore or passage 5 is a disk 8 that I term a "nozzle-plate," the same being constructed with the centrally arranged cone-shaped aperture 9.

10 indicates a length of pipe or tubing, the upper end of which is screw-threaded and enters the screw-threaded bore or passage 5 in the back 1. The thread on the upper end of this tube is of such a length as that the upper end of said tube will pass entirely through the bore or passage 5 and engage directly against the under face of the nozzle-plate 8. Located in this length of pipe 10 at any suitable point is a cut-off valve 11, that is provided with a drain-aperture 12.

By means of an ordinary union 13, or in any suitable manner, a flexible tube, such as a hose 14, is attached to the lower end of the length of tubing. By this construction it will be seen that the tube 10 performs the function of a handle to the cleaning device.

The operation is as follows: The flexible tube or hose 14 being connected to a suitable water-supply the operator grasps the handle 10 and places the bristles 2 of the brush in proper position upon the window. Should it be desired to throw a stream of water upon the window the brush must be manipulated upon the screw-threaded end of the tube 10, so that the nozzle-plate 8 is brought into direct contact with the upper end of said tube 10. Thus a nozzle for said tube is formed. The cut-off valve 11 is now manipulated by the operator and the water from the water-supply readily passes through the flexible tube and handle-tube 10, and a stream of water in every way similar to a stream of water thrown from the nozzle of an ordinary hose can be thrown against the window or whatever it is desired to clean. When it is desired to bring the brush into operation the operator closes the valve 11 and manipulates the brush upon the upper end of the tube 10 until the nozzle-plate 8 is located a slight distance away from the upper end of said tube 10. Should any water remain in the upper end of the tube 10 from the previous operation it will readily be discharged through the vent or drain aperture 12 in the valve 11. When the brush is so positioned, the operator places the same against the window and again opens the valve 11. The water discharged from the upper end of the tube 10 will strike against the nozzle-plate 8 and be deflected thereby onto the bristles of the brush adjacent said nozzle-plate, and from thence it will

diffuse and circulate through the bristles in a natural manner. The brush thus saturated and supplied with water may be moved over the window or work that is being washed, and said water-supply is at all times directly under the control of the operator. When the window or work has been thoroughly scrubbed or washed with the brush, the valve 11 is closed, thereby shutting off the supply of water to said brush, and the device is turned so that the rubber strip 4 is brought into contact with the window. With this strip the surface of the window or work is rubbed dry and the operation is complete.

By the use of my improved device much time and labor are saved and the operation of washing windows and analogous work is greatly facilitated and expedited, as the operator does not have to repeatedly dip the brush in a vessel containing water and then apply the same to the window, nor is an extra hose required.

A device of this construction is of minimum cost and can be quickly taken apart and put together during transportation, or for the purpose of packing and storing.

What I claim is—

The improved scrubbing-brush, comprising the body 1 having brush material 2 and a diagonal screw-threaded bore 5, a discharge-nozzle 8 having a single cone-shaped aperture 9 fixed to stand at an angle upon said body directly opposite one end of said diagonal bore, and a handle in the form of a tube 10 threaded to move loosely in a longitudinal direction within said bore so that its upper end may engage said nozzle and act to cause the supply of water to pass through said nozzle instead of laterally between the latter and said end of said tube, substantially as herein specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. FORD.

Witnesses:
E. E. LONGAN,
JOHN C. HIGDON.