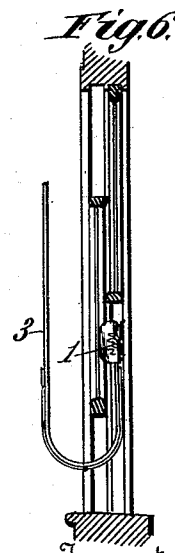
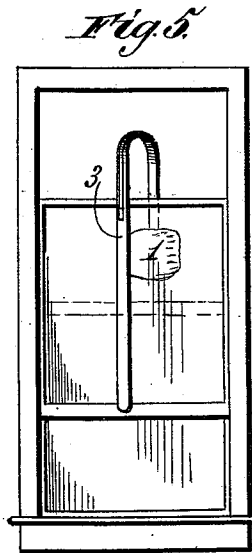
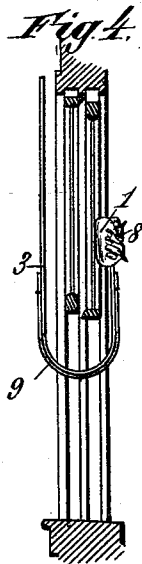
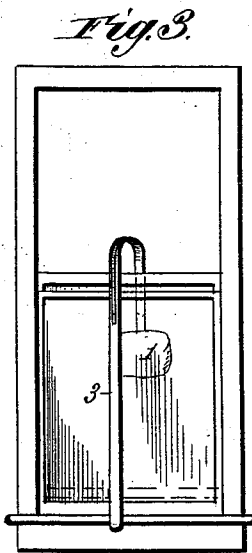
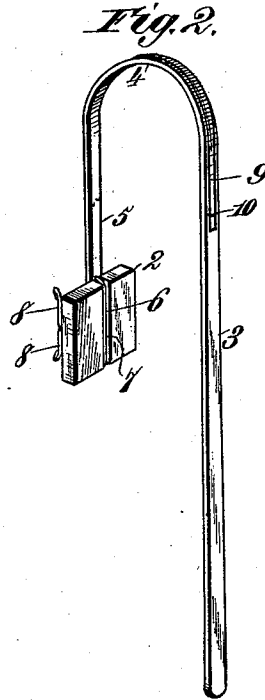
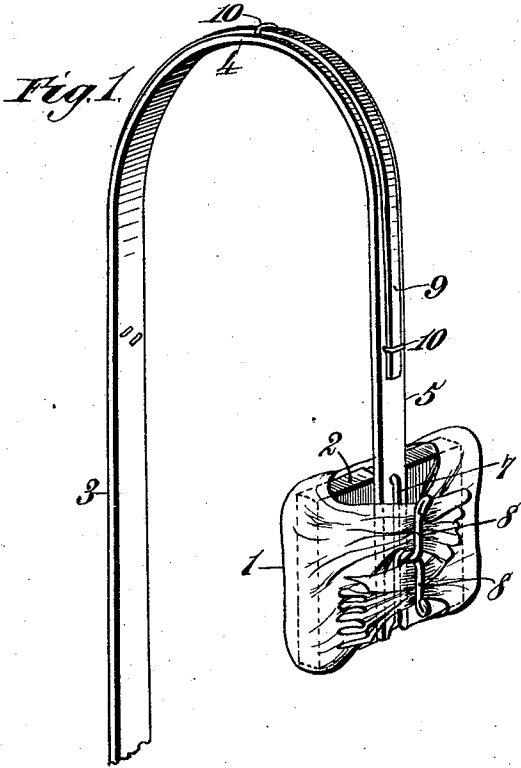


(No Model.)

H. D. GALE.
WINDOW CLEANING IMPLEMENT.

No. 540,972.

Patented June 11, 1895.



Witnesses
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Geo. W. Rea.

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UNITED STATES PATENT OFFICE.

HENRY DANIEL GALE, OF NEW YORK, N. Y.

WINDOW-CLEANING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 540,972, dated June 11, 1895.

Application filed April 2, 1895. Serial No. 544,187. (No model.)

To all whom it may concern.

Be it known that I, HENRY DANIEL GALE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Window-Cleaning Implements, of which the following is a specification.

This invention relates to window cleaning devices, and has for its object to provide a simple, cheap, always ready and easily manipulated appliance for effectively cleansing the outside surfaces of the glass in both the upper and lower or outer and inner sashes of a window, from the inside of a room and without risk to life or limb from sitting on the window sill or stretching over a lowered sash.

In the construction that I have devised a simple, inexpensive and durable window-cleaning implement is provided that requires no adjustment and may be made ready for use without difficulty, it being only necessary to occasionally change the cloth or paper employed for a mop or cleaner.

To these ends my invention consists in the features of construction and novel combination of parts in a window-cleaning implement, as hereinafter described and claimed.

In the annexed drawings, illustrating the invention, Figure 1 is a view of my improved window-cleaning implement complete. Fig. 2 is a view of the same with the cloth or paper cleaner removed, exposing the head or plate to which the cleaner is to be attached. Fig. 3 is a view showing the manner of using the cleaner on the outside of the upper half of the outer sash of a window. Fig. 4 is a view showing the application of the cleaner to the outside of the lower half of the outer window-sash. Fig. 5 shows the cleaner applied to the outside of the upper half of the inner window-sash. Fig. 6 shows the cleaner applied to the outside of the lower half of the inner window-sash.

As a more desirable and inexpensive means for cleaning the outside of the glass in a window sash, I prefer to employ a mop 1, that may be composed of any suitable cloth, or of paper, or the like. A plate or head 2 is provided to which the cloth or paper mop 1 is to be detachably secured. This head 2 may consist of a wooden block, say, five or six

inches square and about three quarters of an inch thick; though it may have any other suitable shape and dimensions.

The handle 3 of the implement consists, preferably, of a strip of bent wood, about seven feet long, more or less, and of any suitable thickness. For about four feet of its length the handle 3 is straight and it then has a bend of about six inches to provide for a suitable clearance over or below the window sash or sashes. Beyond the bend 4 the shorter arm 5 of the handle may extend about two feet six inches parallel with the main portion. To the end of this short arm 5, and on its inner side, is attached the head or block 2 that carries the window cleaner.

I have shown the block 2 as provided on its inner face with a central vertical groove 6 in which is laid a piece of malleable wire 7 that is passed through suitable openings in and near the end of the short handle arm 5 on the outside of which the end portions of the wire are brought together and securely twisted or entwined to fasten the mop-head or block 2 in place. At its two ends a sufficient length of wire is left, beyond the entwined portion, to provide two catches or holders 8 for securing the cloth or paper 1 constituting the mop and, if desired, the ends of these wire holders or catches may be looped to avoid tearing the paper or cloth.

It will be observed that the mop 1, as well as its supporting head 2, will face toward the outside of the window glass when the cleaner is in working position. The groove 6 in the face of the mop-head 2 should be sufficiently deep for the wire 7 to sink therein and thus avoid any ridge or projection in the mop face.

Over the bend 4 of the handle there may be placed a reinforcing strip 9, of bent wood or metal, to impart increased strength to the implement and permit the safe exertion of a required pressure in the operation of cleaning a window. This reinforcing strip 9 may be fastened in place by staples 10 or otherwise.

Although I have indicated some of the preferred dimensions of the implement, it will be understood that its size may be varied to better suit the requirements of larger or smaller windows.

If preferred the handle of the implement

may be tapered from one end to the other and the long arm may be somewhat wider than the short arm.

In Fig. 3, I have shown both sashes of a window lowered to the sill, with the window cleaning implement in position to cleanse the outside of the upper portion of the outer sash. For the purpose of cleansing the outside of the lower portion of this outer sash, both sashes will be raised and the implement applied as in Fig. 4, in reversed position.

To cleanse the upper half of the outside of the inner sash 11, the said inner sash will be raised half way and the outer sash 12 lowered to the sill so that the implement can be applied to the outer upper portion of the inner sash as shown in Fig. 5; and by raising the outer sash to the top of the window frame, as shown in Fig. 6, leaving the inner sash half open the implement can be applied, as shown, to cleanse the outer lower portion of the said inner sash.

It will be observed that no adjustment of this window cleaning implement is required other than an occasional renewing of the mop cloth or paper. Except for attaching a clean cloth, when needed, the implement can be taken up and applied to its intended uses with as little preparation as an ordinary house broom. It can be safely and easily used by any person competent to clean windows. There is no need for sitting or standing out on the window sill, nor for stretching over a lowered window sash, as the implement can be effectively used by a person standing on the floor or upon a chair, within the room—and thus a common danger to life and limb is removed and a proper cleansing of the out-

side of windows provided for without regard to their elevation above the ground. Furthermore the implement is as cheap as it is simple, and the proper manner of using it will be readily comprehended by domestics and house cleaners.

What I claim as my invention is—

1. As an improved article of manufacture, a window-cleaning implement comprising a handle having a long arm and a short arm substantially parallel with each other, a mop-head provided on one face with a central vertical groove and detachably secured to the inner side of the short handle arm by means of a wire laid in said groove and engaged with the short arm of the handle, the end portions of the wire being twisted together on the outer side of said short arm, and a mop-cloth or cleaner detachably fastened to said mop-head by means of the projecting ends of said wire, substantially as described.

2. As an improved article of manufacture, a window-cleaning implement comprising a bent handle having a short arm and a long arm, a mop-head attached to the end and inner side of the short handle arm, a mop-cloth or cleaner detachably fastened to said head, and a reinforcing bend or strip secured over the bend of the handle, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY DANIEL GALE.

Witnesses:

JOHN A. BASSETT,
ARTHUR KORK.