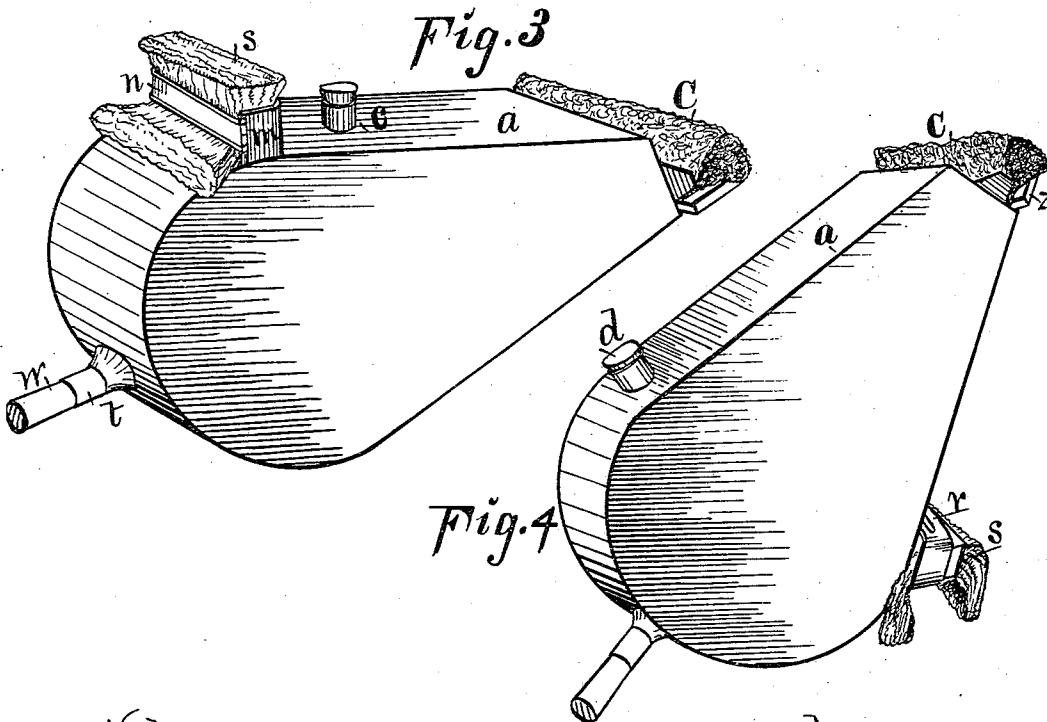
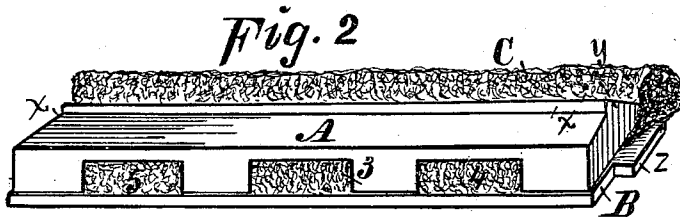
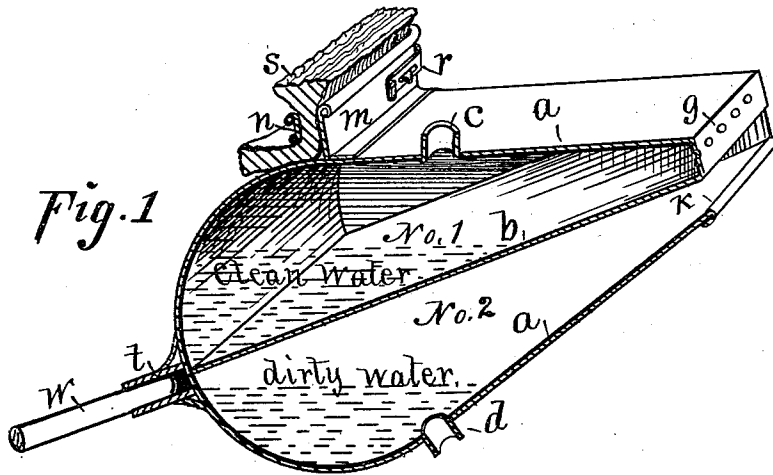


G. G. CLARK.  
WINDOW-WASHER.

No. 192,566.

Patented July 3, 1877.



Witnesses,  
C. A. Johnson,  
A. E. Orwig }

Inventor,  
George G. Clark,  
By Thomas G. Orwig, atty.

# UNITED STATES PATENT OFFICE.

GEORGE G. CLARK, OF WINTERSET, IOWA.

## IMPROVEMENT IN WINDOW-WASHERS.

Specification forming part of Letters Patent No. 192,566, dated July 3, 1877; application filed October 27, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE G. CLARK, of Winterset, in the county of Madison and State of Iowa, have invented a Window-Cleaning Apparatus, of which the following is a specification:

The object of my invention is to provide a window-glass cleaner that can be alternately used to wash, dry, and polish a window, wall, and ceiling, by simply turning and holding it in different positions to apply it to the work. It consists in a vessel having two chambers, a mop-holder, and a sponge-holder, all constructed, arranged, and mounted upon a handle, as hereinafter fully set forth.

Figure 1 of my drawing is a half-section of my complete apparatus, and illustrates the manner of constructing and operating my invention.

*a a a* is the sheet-metal wall of a vessel that is of conoidal form through its cross-section, and that may vary in size, as desired. *b* is a partition dividing the vessel into two chambers. No. 1 is the upper chamber, designed to contain clean water. No. 2 is the lower chamber, designed to receive the water after it has been applied to the window from No. 1 chamber, and is dirty. *c* is an induction-tube on the top of the vessel, through which clean water is put into the chamber No. 1. *d* is an eduction-tube on the under side, through which the dirty water is emptied from chamber No. 2. *g* is a perforated end piece that closes the narrow and front end of chamber No. 1. *k* is the open and narrow end of chamber No. 2, into which my sponge-holder is fitted and placed to co-operate with the perforated end piece *g* to apply the water from chamber No. 1, and convey it, after being used, to chamber No. 2, without dropping any, or splashing the operator, or other contiguous objects, with dirty water. *m* is a box-form mop-holder, rigidly secured across the top of the enlarged and rear portion of chamber No. 1. *n* is a bar, hinged at one end of the mop-holder, and secured by a hasp, *r*, at its opposite end, to clasp and hold a cloth or paper, *s*, or other suitable material, for drying and polishing a window. *t* is a socket in a central position at the enlarged rear end and base of the complete apparatus, into which a suitable handle,

*w*, is fitted and secured. Long and short handles may be alternately used to wash parts that are close to or distant from the hands of the operator.

Fig. 2 is a perspective view illustrating the construction of my movable sponge-holding device, designed to be placed into the open end of the chamber No. 2 of my complete apparatus.

*A* is a wooden bar or block corresponding in size and form with the opening *k* of chamber No. 2. It has a shoulder and stop, *x x*, and a bevel or inclined plane, *y*, on its top and front side. The stop serves to retain the block in its position in the mouth of chamber No. 2, and, together with the bevel or plane, aids in conducting the water from chamber No. 1 to the sponge.

3 4 5 represent a series of mortises or transverse openings in the under side of block *A*, through which the dirty water passes from the sponge into chamber No. 2.

*B* is a flexible plate, of rubber, leather, or other suitable material, fastened to the under side of the block *A*, by means of screws or other adjustable fastening devices, in such a manner as to clamp and hold a strip of sponge, or its equivalent, and let it extend forward, where it can expand to absorb and retain the clean water as it percolates through the perforated front *j* of chamber No. 1 when the front end of the vessel is sufficiently depressed.

*z* is one of the extensions on the ends of the plate *B*. These extensions form shoulders corresponding in position with the shoulder *x x* of the block *A* to aid in retaining the complete sponge-holder in its proper place when in operation. They also form guards or fenders that protect the glass from contact with the rigid corners of the vessel *a a a*. The complete flexible plate yields sufficiently to allow the projecting portion of the sponge to be pressed against the glass to wet and wash it, and at the same time prevent the water from running down on the glass by conducting it, through the capillary attraction of the sponge in the openings of the block *A*, to the chamber No. 2.

Fig. 3 is a perspective view, showing my apparatus in position as required to wash a

window. Fig. 4 shows it inverted as required to dry and polish, and to retain the water in the chambers.

The manner of practically and advantageously using my invention is obvious from the foregoing detailed description of its construction, application, and operation.

I claim as my invention—

1. The vessel *a a a*, having the partition *b* and chambers Nos. 1 and 2, the induction and eduction tubes *c* and *d*, the perforated plate *g*, and the open mouth *h*, substantially as and for the purposes shown and described.

2. The mop-holder *m n r*, in combination with the vessel *a a a*, substantially as and for the purposes set forth.

3. The removable block *A*, having the shoulder and bevel *x x y* and transverse openings

3 4 5, in combination with the flexible plate *B* and sponge *C*, substantially as and for the purposes shown and described.

4. The sponge-holder, composed of the parts *A B C*, in combination with the chamber No. 2 in the vessel *a a a*, and the chamber No. 1 having perforated front *g*, substantially as and for the purposes shown and described.

5. As a new article of manufacture, the window-cleaner, composed of the vessel *a a a*, having two chambers, Nos. 1 and 2, and carrying a sponge-holder, *A B C*, and mop-holder *m n r*, substantially as and for the purposes specified.

GEORGE G. CLARK.

Witnesses:

W. W. CASSIDAY,

F. M. CASSIDAY.