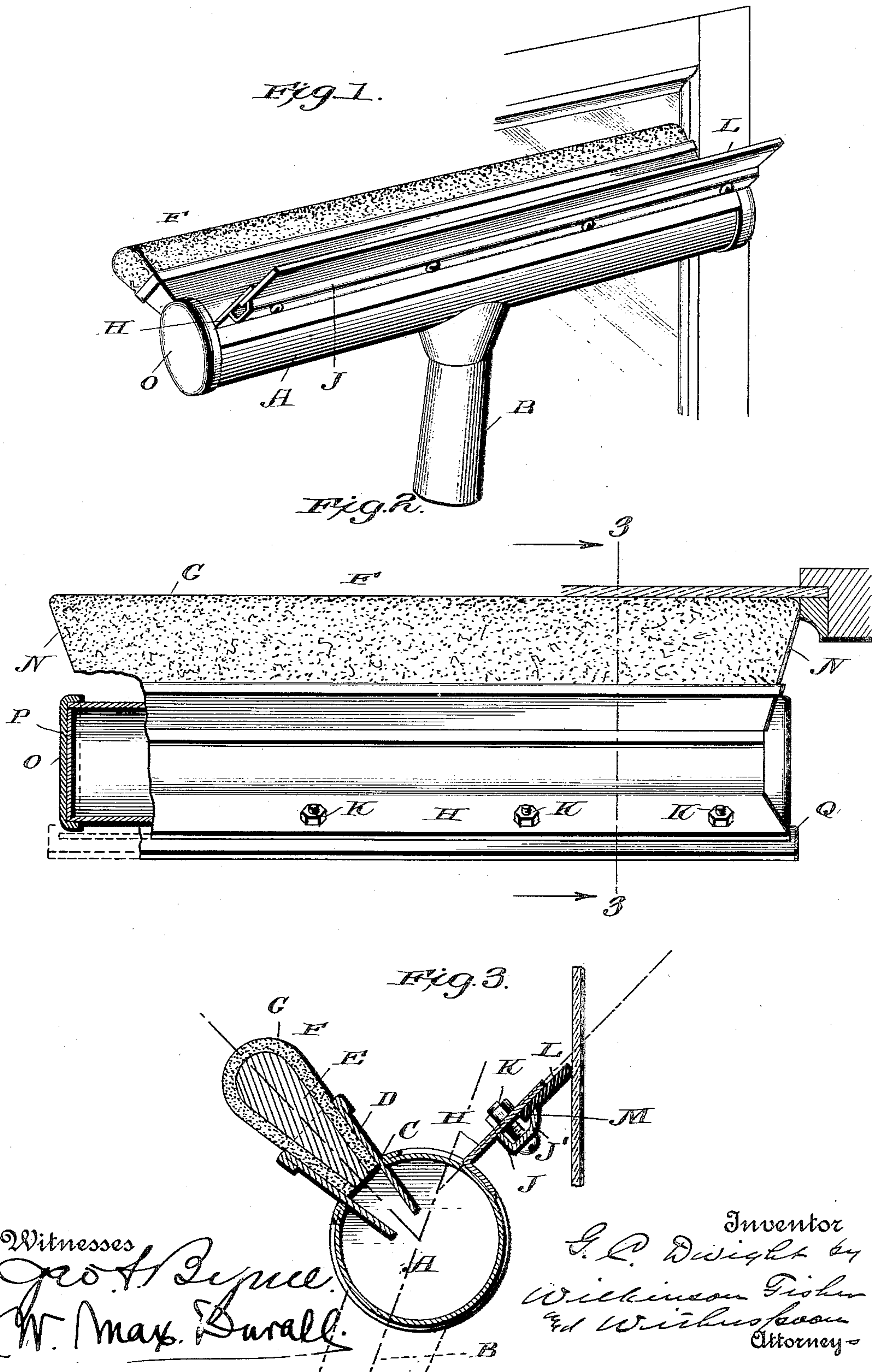


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PATENTED SEPT. 1, 1908.

G. C. DWIGHT.
WINDOW CLEANER.

APPLICATION FILED OCT. 18, 1907.



UNITED STATES PATENT OFFICE.

GEORGE C. DWIGHT, OF RED BANK, NEW JERSEY.

WINDOW-CLEANER.

No. 897,605.

Specification of Letters Patent.

Patented Sept. 1, 1908.

Application filed October 18, 1907. Serial No. 398,097.

To all whom it may concern:

Be it known that I, GEORGE C. DWIGHT, a citizen of the United States, residing at Red Bank, in the county of Monmouth and State of New Jersey, 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 window cleaners, and the object of my invention is to produce such a cleaner that will be simple in construction, certain in action, cheap to manufacture, and which will provide means whereby the corners of a window pane may be gotten at and thoroughly cleaned.

A further object of my invention is to provide such a cleaner with means whereby the rubber, used in drying the window, is not liable to be cut in two while being used, and whereby each corner of the rubber strip may be used as a cleaning surface.

To these ends my invention consists in the combination of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like letters indicate like parts in all the views, Figure 1 is a perspective view of my window cleaner showing the cleaning member contacting with the window pane. Fig. 2 a plan view of the same partly broken away, and partly in section, and Fig. 3 a cross sectional view taken on the line 3—3 of Fig. 2 showing the rubber drying member contacting with a window pane.

A represents a cylindrical liquid receptacle or tank having a handle B attached to its under side. This liquid receptacle is provided with a slot or opening C formed by turning the metal of the said receptacle back upon itself, as shown, and into this slot I secure by solder, or otherwise, the open bottom trough like receptacle D as shown. This receptacle D has its side walls extending downwardly a considerable distance into the receptacle A as above shown in Fig. 3.

E represents the core of the cleaning member F, and G represents a suitable fabric, or other material, surrounding said core, and adapted to take up water from the tank A by capillary attraction, as is well known. This

cleaning member is tapered in cross section, and is made to fit the trough D.

H represents a bracket secured to the tank A, and provided with a clamping member J having the flat wall J', through which pass the screw or other fastenings K as shown. Between this clamping member J, and the bracket H, is firmly clamped the rubber drying member L. The upper lip M of the clamp J is inclined at an angle of about 135 degrees to the plane of the rubber strip L as shown, and the bracket H is inclined at an oblique angle of about 25 degrees to the plane passing through the handle B and the tank A. The trough D, and consequently the center plane of the cleaning member F, is likewise inclined at an oblique angle of about 110 degrees to the longitudinal plane passing through the tank A and handle B.

The rubber cleaning strip L is rectangular in shape, having the four edges shown, and by unfastening the clamp J, it may be readily turned end for end and may also be turned over laterally, and again turned end for end and, thereby when fastened in these various positions each of the four edges may be used. That is to say, there are four positions in which this single rubber strip may be clamped, and in each position a new edge is available for contacting with the glass. The slightest crack due to wear of the rubber, causes a streak on the glass and therefore when an edge becomes worn it is of little use. Consequently, it is found very desirable, in practice, to be able to turn the rubber strip into as many positions as possible, and thereby to utilize as many wearing edges as possible before the same is to be discarded.

I prefer to employ felt for the covering G, on my core E, and I flare both the core and the felt covering outwardly at each end of the cleaning member F, as shown at N. The object of thus flaring the ends of this cleaning member, is to enable the same to enter the corners of the window, and thereby clean those places that have been heretofore so difficult to reach. Also, my felt cleaning member F serves both as a stopper for the tank A and for a wick, for felt is a material which readily absorbs water, and keeps moist as long as any water is brought in contact therewith.

O represents a cap of any suitable material extending about an eighth of an inch over the cylinder at each end, and which protects

the corners of said cylinder against knocks and which provides a rounded edge on said cylinder, and thereby prevents the same from cutting the window sash. I have
 5 found from practical experience that when only the end piece P is soldered into the end of the cylinder, and the cap O not employed, the cylinder is liable to mar and injure the window sash, especially if the operator is not
 10 careful.

I consider the angles at which the brackets H and the trough D, and consequently the angles at which the drying strip L and the cleaning member F are placed relative to the
 15 longitudinal plane passing through the handle B, to be of importance, in that they enable me to bring a greater portion of the surface of the cleaner F into contact with the glass, than it would be possible to do, were
 20 any other angle adopted for the said cleaner F. And this is because the operator may readily approach the handle B toward the glass, or recede it therefrom, and thereby turn the said cleaning member F on a pivot,
 25 as it were, and utilize a greater portion of its surface for cleaning than would be the case were the handle B parallel to the glass when the device is in use. I, also, attach a special importance to the angle at which the bracket
 30 K, and consequently the strip L, is inclined to the handle B. By making this angle oblique and substantially 25 degrees, as above stated, I am also enabled to move the said strip about a center as it were, and to
 35 readily exert a considerable pressure on the said strip in a direction toward the center of the tank A, and thereby take considerable pressure from the strip in a direction at right angles to its surface. That is to say, I have
 40 found in practice that where the strip is severely bent at right angles to its surface it soon breaks and cracks at the edges of its holding clamp, and is consequently worn out and worthless before its edges are worn. I,
 45 also, attach considerable importance to the angle of 135 degrees that the portion M of the clamp J makes with the flat surface of the said strip, for it enables the said strip L to be bent down a considerable distance without
 50 being cut or ruptured by said holding jaw. I found, in practice, that a strip held by a jaw at this inclination lasts much longer, than a strip which contacts with the same at an angle of, say 90 degrees.

55 It will be seen from Fig. 2, that the strip L extends out slightly beyond the extreme ends of the tank A, and beyond the extreme ends of the bracket H, and the clamp J. These extreme ends Q of the strip which are
 60 not backed up by any metal, are found exceedingly useful in getting into the corners of the window sash, and are very effective, therefore, in securing an absolutely dry surface of the window pane.

65 In operation, the cleaning member F is re-

moved, the tank A filled with water or other cleaning fluid, the said member F then replaced, and allowed to become saturated with fluid, and the cleaner is applied to the window. After the window is thoroughly
 70 cleaned, the glass is dried and polished by applying the rubber edges of the strip L thereto.

Owing to the fact that the walls of the trough D extend down into the tank A as
 75 shown, water may be kept from the felt G, when desired, and the said felt allowed to become more or less dry in cleaning the window. In other words, after the felt has been
 80 thoroughly moistened by so tipping the tank as to allow the water to come in contact therewith, and after the window has been washed by this wet felt, by the simple device of not further tipping the cylinder the water
 85 may be allowed to be squeezed out of the felt G, and the same become partially dry, and thereby act as a partial drying material or agent for the window, and get it into better condition for the rubber strip which comes after.

Having now described my invention what I claim is:—

1. In a window cleaner the combination of a liquid receptacle, A, provided with a cap O at each end and an orifice extending longitudinally thereof, a cleaner, F, provided with a
 95 core tapered in cross section, and having flared ends, extending beyond the ends of said receptacle and a handle attached to said receptacle, substantially as described.

2. In a window cleaner the combination of a tank provided with a cap O, one at each end and an orifice extending longitudinally thereof, an open bottom trough D located in said
 105 orifice and secured to said receptacle, a cleaner, F, provided with a core, E, tapered in cross section fitting said trough D, and provided with flared ends, N, extending slightly beyond the ends of said receptacle, and a handle attached to said receptacle, sub-
 110 stantially as described.

3. In a window cleaner the combination of a tank, A, provided with an orifice, C, an open bottom trough like receptacle, D, secured to said tank and having its side walls
 115 extending into the same, a tapered cleaner F provided with a tapered core, E, fitting said trough D covered with a liquid absorbing material, and provided with flared ends, N, adapted to enter the corners of a window
 120 sash, and a handle attached to said receptacle, substantially as described.

4. In a window cleaner the combination of a liquid receptacle, A, provided with a cap O at each end and an orifice, C, extending longitudinally thereof, a trough like open bot-
 125 tom receptacle, D, secured to said receptacle A and having its side walls extending into the same, a tapered cleaner, F, provided with a tapered core, E, and extended flared
 130

ends, N, fitting in said trough, D, and a handle, B, attached to said receptacle, said cleaner, F, being inclined at an oblique angle to the longitudinal plane passing through said receptacle and said handle, substantially as described.

5 5. In a window cleaner the combination of a cylindrical receptacle, A, provided with a cap, O, at each end having rounded edges extending slightly beyond the ends of said receptacle proper, a trough like open bottom receptacle, D, having flared projecting ends secured to said receptacle, A, a cleaner, F, provided with a core, E, fitted to said receptacle, D, and having the flared projecting ends, N, extending slightly beyond said caps, and a handle, B, attached to said receptacle, A, the said cleaner, F, being inclined at an oblique angle to the longitudinal plane passing through the said receptacle, A, and said handle, B, whereby the said cleaner, F, may be

turned when in use, so as to bring different surfaces into contact with the glass, and whereby the flared ends, N, may be utilized to clean the corners of the window sash, while the rounded edges of the caps, O, will prevent the said receptacle, A, from marring the wood work of the sash, substantially as described. 25

6. In a window cleaner the combination of a liquid receptacle, A, provided with a cap, O, at each end thereof having rounded corners, and the cleaner, F, having the flared projecting ends, N, extending beyond said caps, substantially as described. 30 35

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

GEORGE C. DWIGHT.

Witnesses:

JOSEPH S. HUNT,
MOSES ELY.