

(No Model.)

B. FRITSCH.
WINDOW CLEANING ATTACHMENT.

No. 546,812.

Patented Sept. 24, 1895.

FIG. 1.

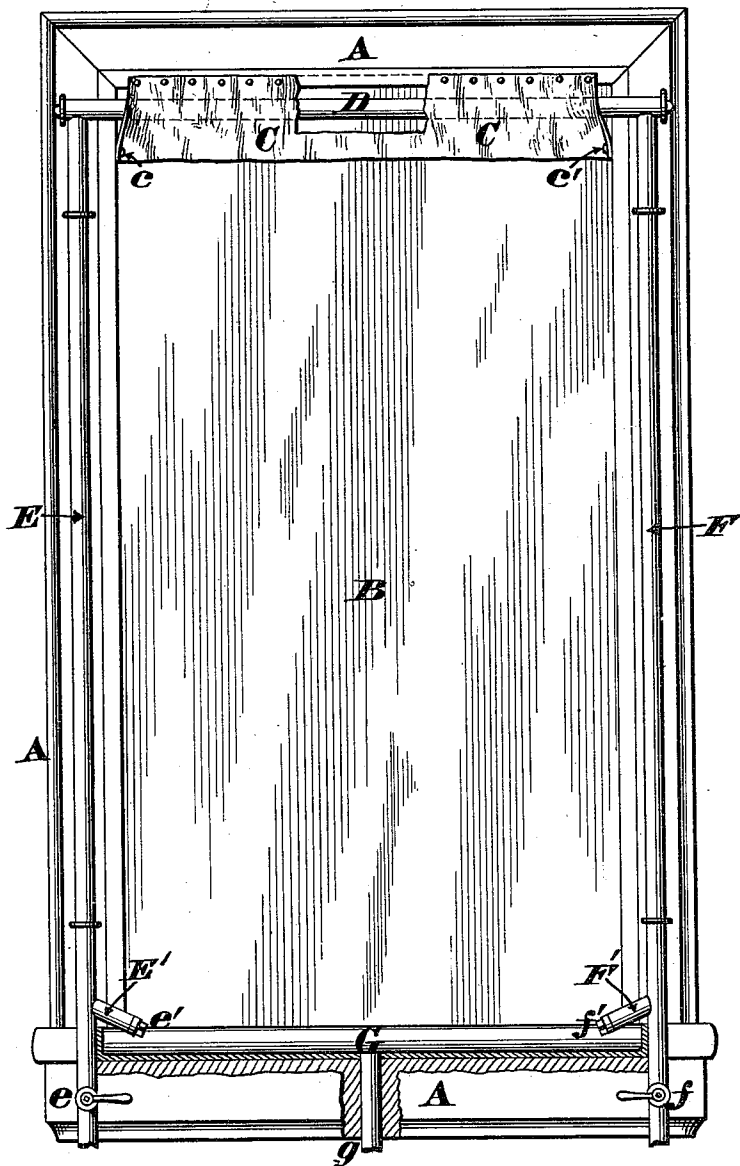


FIG. 2.

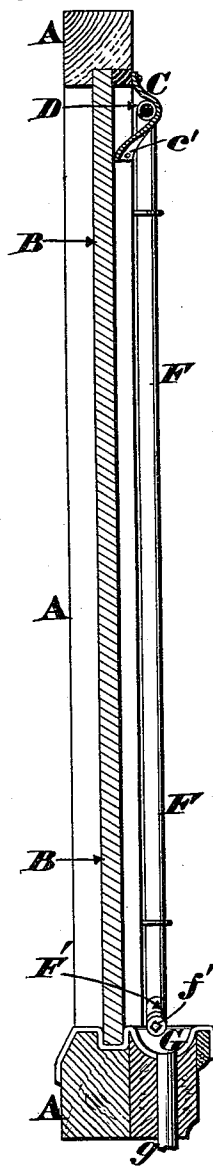


FIG. 3.

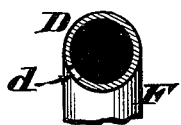


FIG. 5.

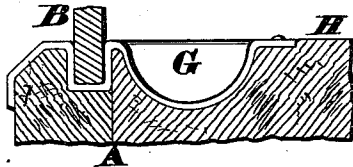


FIG. 4.



Attest.
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att'y.

UNITED STATES PATENT OFFICE.

BENEDICT FRITSCH, OF VINCENNES, INDIANA, ASSIGNOR OF ONE-HALF TO
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WINDOW-CLEANING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 546,812, dated September 24, 1895.

Application filed April 9, 1894. Serial No. 506,891. (No model.)

To all whom it may concern:

Be it known that I, BENEDICT FRITSCH, a citizen of the United States, residing at Vincennes, in the county of Knox and State of Indiana, have invented certain new and useful Improvements in Window-Cleaning Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

My invention comprises an attachment that can be permanently secured to a window-frame for the purpose of keeping the inner side of the glass perfectly clean, and also to prevent any accumulation of frost and ice thereon. The principal member of this attachment is a horizontal pipe extending completely across the upper part of the frame, which pipe is slotted longitudinally or pierced with numerous small holes, the latter being so arranged as to discharge jets of water toward the glass and at a suitable downward inclination. A strip of cloth has its upper edge secured near the top of the window-frame, and is then carried down behind said perforated pipe, after which act the lower margin of said strip is drawn forward and held in close contact with the rear or inner side of the glass. By this arrangement the strip not only serves as a distributor that spreads the water thinly and evenly over the entire rear surface of the glass, but it also prevents the fluid being deflected back into the room or thrown on goods or other articles displayed in a show-window. The flow of water to the upper pipe is effected by one or more vertical tubes secured to the sides of the frame, and a gutter at its lower end leads off the waste water to a suitable receptacle, as hereinafter more fully described.

In the annexed drawings, Figure 1 is an inside elevation of a window provided with my cleaning attachment. Fig. 2 is a vertical section of the same, taken in the plane of the waste-pipe. Fig. 3 is an enlarged transverse section of the perforated pipe. Fig. 4 is a side elevation thereof. Fig. 5 is a modification of the invention.

A represents a window-frame or fixed sash,

and B is a single glass or pane immovably secured therein.

C is a narrow strip of cloth having its upper margin attached to the frame, while its lower portion is brought down behind a pipe D and is then drawn snugly against the glass B and secured in place by tacks *c c'*, driven into the opposite sides of the window-frame, this close contact of said strip with the glass being seen in Fig. 2. Strip C may be from four to six inches wide, and the pipe D, which it conceals to a great extent, is horizontal and has in front a number of small perforations *d*, adapted to discharge fine jets of water directly against the inner side of the window-glass. Furthermore, these perforations are so arranged as to impart a slight downward projection to the jets, as seen in Fig. 3. Pipe D may be supplied with water by means of a single vertical tube; but I prefer to use a pair of them, as seen at E F, cocks *e f* being provided to regulate the flow.

E' F' are branches connected to these tubes, and *e' f'* are cocks or caps of the same, which caps can be removed, so as to discharge into a gutter or trough G, the latter being usually made of sheet metal and having its ends closed, the only outlet to said gutter being a waste-pipe *g*, communicating with a sewer or other receptacle for the water used in cleansing the window. The sheet metal composing this trough is bent to serve as a bearing for the glass to rest in, as seen in Fig. 2, and may also cover the exterior of the window-sill; but in the modification seen in Fig. 5 this gutter, instead of being fitted in the sill, is made to occupy the platform H of a show-window. To use this attachment the caps or cocks *e' f'* are first closed and then either one or both of the other cocks *e f* are opened to admit a proper supply of water to the pipe D, and as the jets issue from the ventages *d* they strike directly against the inner surface of glass B. Strip C now acts as a distributor and causes the water to spread evenly over the entire surface of the glass and slowly pass down the same in the form of a thin transparent film that offers no obstruction to the light. This thin film, however, is sufficient to keep the glass perfectly free from flies, dust, 100

and other impurities floating in the air, while at the same time the constant flow of water tends to lower the temperature of the room lighted by the window. Again, this thin and constantly-flowing film prevents frost and ice accumulating on the inner surface of the glass during cold weather. Owing to the peculiar arrangement and location of the strips C there is no danger of water being deflected back or away from the window and falling upon goods or other articles displayed upon the window-platform H. If there should be any leakage from the pipe D after the supply-cock is closed, the strip C will arrest the water and conduct it to the glass, thereby preventing any actual waste and enabling the cleaning attachment to be operated with the least possible cost. The strip also acts as a strainer to arrest any impurities contained in the water, and when said strip becomes soiled by constant use the tacks *c c'* can be pulled out to enable the cloth to be cleaned with a brush. By closing the cocks *e' f* and opening the other cocks *e f'* water will traverse the pipes

E D F and be discharged through the branch F', or this operation can be exactly reversed, so as produce the discharge at the branch E', either or both of which operations will effectually flush out the attachment and cleanse it of any sediment that may have accumulated therein. Finally, the pipes E F may communicate with a street-main or other source of water supply capable of affording the necessary pressure.

I claim as my invention.—

The combination of a frame having a glass fitted therein; a perforated pipe extending across the frame, at or near its top; means for supplying water to said pipe; and a flexible strip arranged in the rear of the perforated pipe with its lower edge in contact with the glass, substantially as shown and described.

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

BENEDICT FRITSCH.

Witnesses:

GEO. R. ALSOP,

HENRY J. BOECKMANN.