D. G. DAVIS & H. C. MEYERHOFFER.

WINDOW CLEANER.

APPLICATION FILED DEC. 16, 1909.

983,269. Patented Feb. 7, 1911.

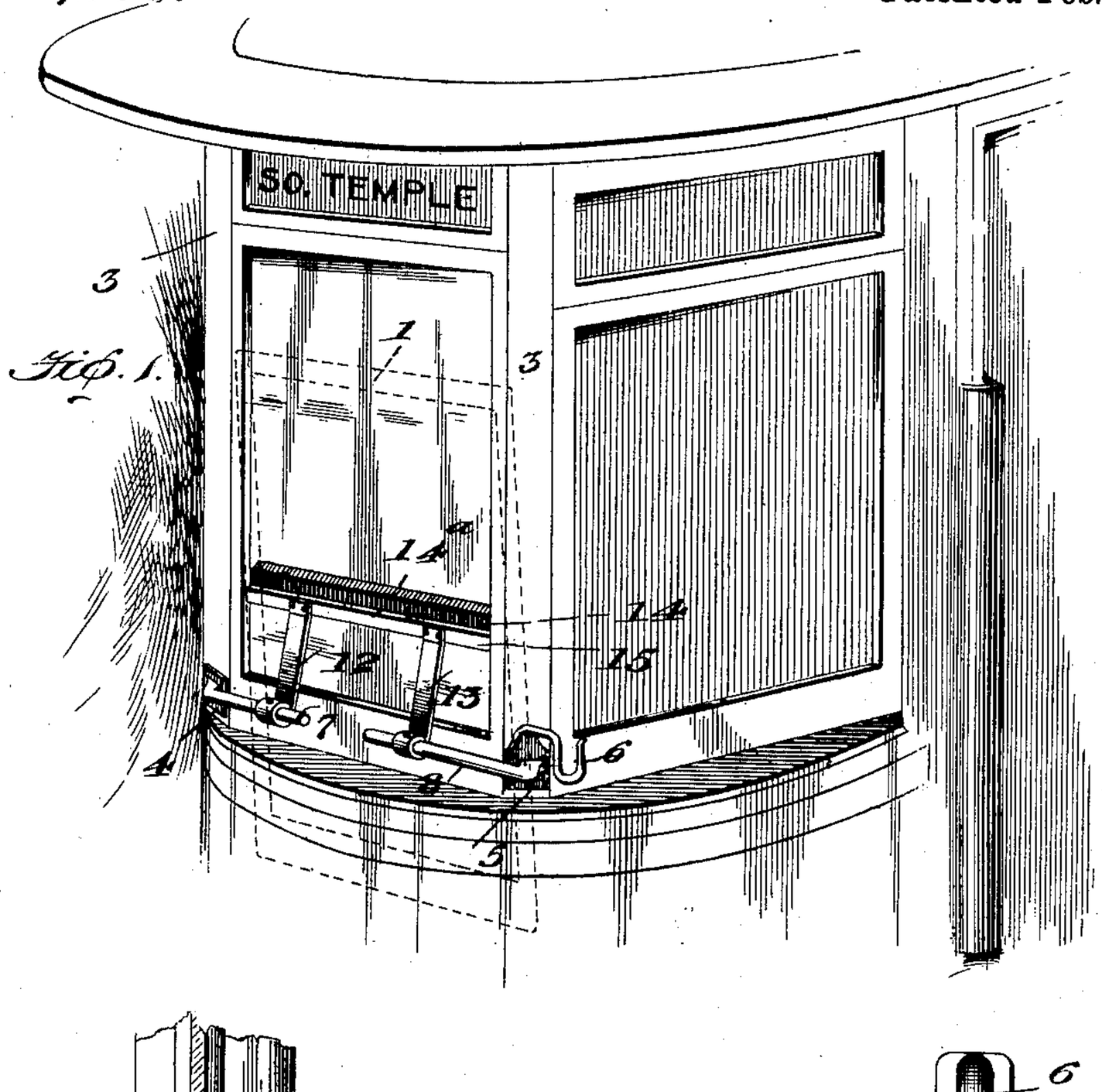

Fig. 1.

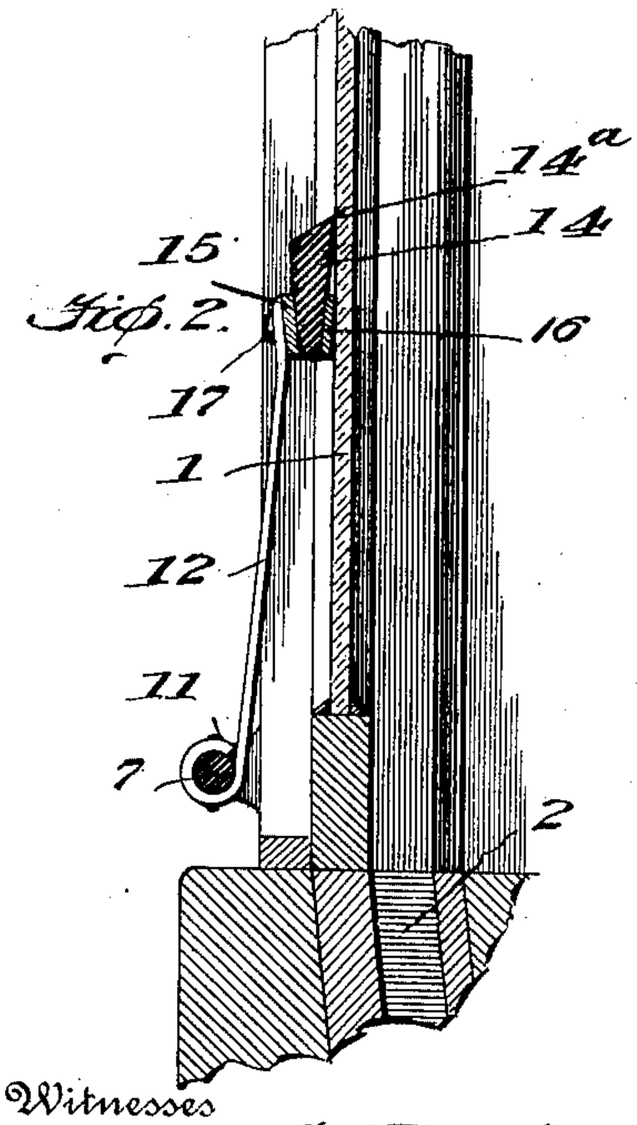

Fig. 2.

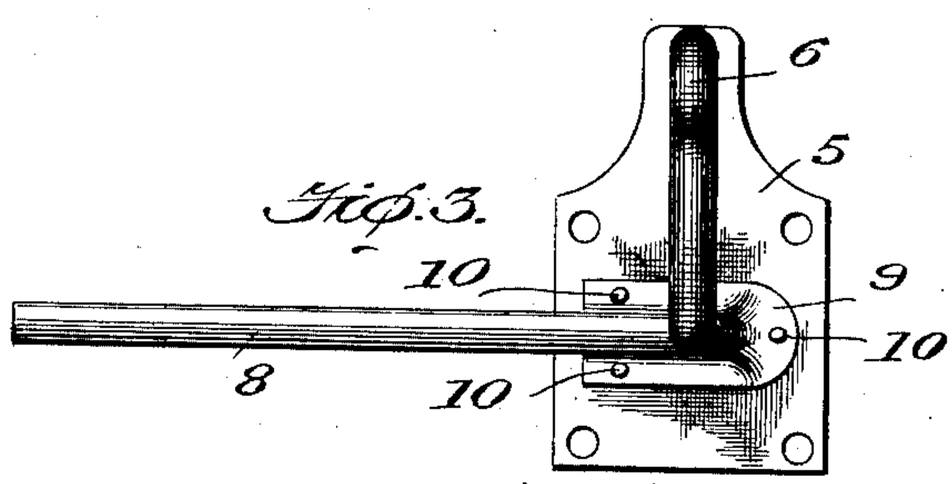

Fig. 3.

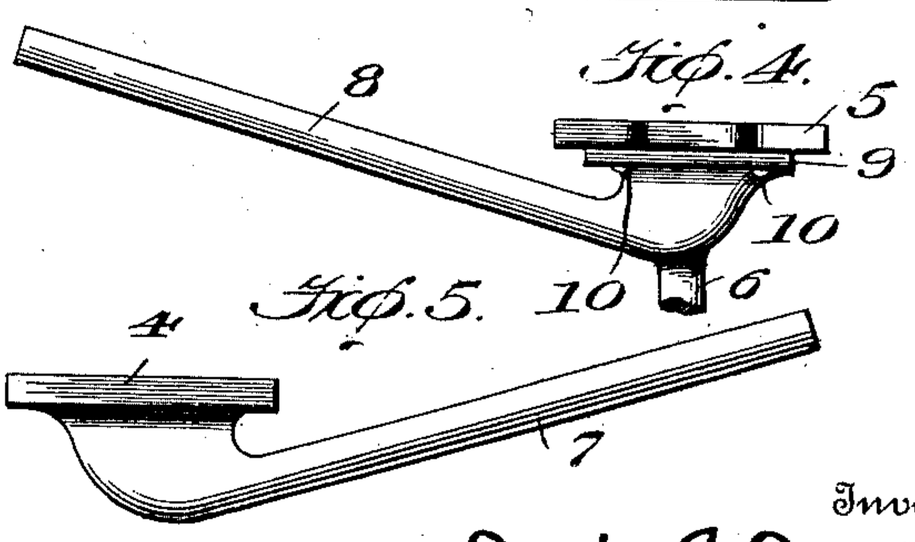

Fig. 4.

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

DANIEL G. DAVIS AND HENRY C. MEYERHOFFER, OF SALT LAKE CITY, UTAH.

WINDOW-CLEANER.

983,269. Specification of Letters Patent. Patented Feb. 7, 1911.

Application filed December 16, 1909. Serial No. 533,448.

To all whom it may concern:

Be it known that we, DANIEL G. DAVIS and HENRY C. MEYERHOFFER, citizens of the United States, residing at Salt Lake City, county of Salt Lake, and State of Utah, have invented certain new and useful Improvements in Window-Cleaners, of which the following is a specification.

Our invention relates to window cleaners. The object of the present invention is the provision of a simple, inexpensive, and durable window cleaner, whose parts can be readily replaced if worn or damaged, which will be adapted for application to any window frame, but more particularly to the storm or vestibule front of a street car, and will co-act with the window pane in such manner that on moving the pane, the rain, snow, or ice adhering thereto, will be effectually removed.

The invention is set forth fully hereinafter and the novel features are recited in the appended claims.

In the accompanying drawings:—Figure 1 is a perspective view of the storm or vestibule front of a street car, showing the window cleaner applied thereto; Fig. 2, a detail vertical section illustrating the invention; Fig. 3, a front elevation of the bracket having the hook for the switch rod; Fig. 4, the top plan view thereof; and Fig. 5, a similar view of the other bracket.

As shown in Fig. 1, the invention is illustrated in connection with the storm or vestibule front of an ordinary street car, the front pane 1 being that which is in front of the motorman, although it will be understood that our invention can be applied to all the panes and sashes of the vestibule front. As is well known, the pane 1 is adapted to be lowered by inward tilting and depressed into a seat or pocket 2 in the car body (Fig. 2).

The stiles or corner pieces 3 of the car are usually disposed angularly as shown and as these afford the points of attachment of the device, the back plates 4 and 5 of the brackets are attached thereto by suitable screws or fastenings. One of these back plates 5 is provided with a hook 6 for the switch rod which is used by the motorman to shift the switches. One of the brackets 7 is formed integral with its plate 4 and is arranged at an angle thereto as shown in Fig. 5 so that the rod of the bracket is disposed parallel to and extends across in front of the window pane 1. Similarly, the bracket rod 8 of the other bracket is disposed at an angle to its base plate 9 (Figs. 3 and 4) but this base plate 9 is detachably connected to the plate 5 by fastenings 10. Secured to the bracket rods 7 and 8 by bolts or other suitable fastenings 11 are leaf-springs 12 and 13 which are partly coiled around the respective bracket rods and whose upper ends are secured to the cleaner and tend to hold it against the window pane.

The cleaner consists of a rubber or other suitable strip 14 having a beveled face converging to an edge 14^a which is adapted to bear against the pane 1. On opposite sides of the cleaning strip are metal reinforcing and clamping strips 15 and 16 to which the spring arms 12 and 13 are secured by bolts or other suitable detachable fastenings 17. The cleaner extends substantially the width of the pane 1 and a suitable distance above the lower part thereof. The provision of the independent bracket arms 7 and 8 permits the use of the device on any car as the springs 12 and 13 may be secured to the bracket arms according to the position of the latter and if the length of the cleaner 14 and the strips 15 and 16 is too great or too small, the detachability of the fastenings 17 enables the proper length of the cleaner to be used. The springs are of such tension that they hold the cleaner 14 against the window pane with a sufficiently firm engagement to insure the cleaning thereof without any likelihood of damage even though the window pane or sash be carelessly manipulated.

If the window is closed and it is desired to cleanse it of its accumulation of rain, snow, or ice, the motorman lowers the window sash into the pocket 2, the cleaner continuing to bear against the pane, and during this movement the accumulation of rain, snow, and ice is scraped from the pane by the cleaner 14. Operating the sash up and down a few times will effectually clean it of all accumulations.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:

1. In a cleaner for slidable windows, resilient arms adapted to be stationarily secured to the window frame, and a cleaner secured to said arms and by them held crosswise of and in contact with the window, whereby the window is cleaned by the move-

ment thereof, said cleaner being adapted to be permanently located on the window frame in such position that it will not interfere with opening or fully closing the window.

2. In a cleaner for slidable windows, independent brackets adapted to be stationarily secured to the window frame, spring arms secured to the brackets, and a cleaner carried by the arms and yieldingly held thereby so that said cleaner will be in engagement with the window, whereby the window is cleaned by the movement thereof, said cleaner being adapted to be permanently located on the window frame in such position that it will not interfere with opening or fully closing the window.

In testimony whereof, we hereunto affix our signatures in presence of two witnesses.

DANIEL G. DAVIS.
HENRY C. MEYERHOFFER.

Witnesses:
A. M. CHENEY,
CHAS. E. CHENEY.