AIR DUCT ACCESSORY FOR HOUSE WINDOWS

Filed June 14, 1961
This invention relates to an air duct accessory for house windows, and has for an object to provide such a device that may be used in window frames provided with guide tracks for upper and lower sash as well as a screen, and could be used for ventilation while the screen is in place. The invention is particularly well suited for use with the widely used, triple-track, aluminum, combination screens and windows of the type including at least one vertically adjustable sash that may be locked in any one of a plurality of positions between its limits of vertical movement.

Another object is to provide a device of this character which is of simple and noncomplicated construction, and one which may be used while the window is open to permit ventilation but effectively prevent entrance of rain during a storm.

A further object is to provide a device of this type which may be readily mounted in either of the sash tracks of the window frame.

Another object is to provide a simplified structure which may be readily and easily adjusted to fit window frames of different widths without changing its effectiveness.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawings forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In this drawing:

FIG. 1 is a perspective view of a window from the outside and showing my improved device in place;

FIG. 2 is a section on a larger scale taken substantially on line 2—2 of FIG. 1;

FIG. 3 is a section substantially on line 3—3 of FIG. 2;

FIG. 4 is a perspective view of the device removed from the window, and

FIG. 5 is a front or outer view thereof.

This device is an attachment for a triple track combination storm window or window with a screen, which enables the window sections to be opened, particularly the lower sash, to allow air to enter a room and at the same time keeping out rain or snow. In FIG. 1 it is shown in a position in a window on the exterior of the house 9 with the lower sash raised, and when so mounted is in the nature of a hood which covers the open portion of the window, which in this case is under a partially raised lower sash.

In the drawing the window frame is indicated at 10, the window being of the type comprising an upper vertically slidable sash 11 and a lower vertically slidable sash 12, operating in suitable guide tracks 13 and 14 respectively in the frame. This frame also has a guide track 15 for a screen at the inner side of the window sash.

This device is of very simple construction, comprising three sections only, including a central section 16 and two end sections 17 and 18, all of them formed from some suitable sheet material, preferably sheet metal, such as aluminum or similar material. The three sections are so connected that they may be adjusted laterally to vary the length of the device to accommodate the device for windows of different widths. Each of the two end sections comprises an upright end member 19 of substantially triangular shape including an upright inner edge 20, with a laterally and outwardly extending flange 21 on this edge adapted to seat in a guide track for the window sash in the window frame. In FIGS. 1, 2 and 3 of the drawing it is shown as seated as the upright side tracks 14 for the lower window sash 12. The end member 19 also comprises a downwardly and outwardly inclined upper edge 22 leading downwardly and outwardly from the top of inner edge 20 to a downwardly and inwardly inclined outer edge 23.

Each of the end sections 17 and 18 also includes a laterally extending solid top wall or strip 24 and 25 respectively, extending laterally from the top edge 22 and of a width substantially equal to the length of this top edge.

The intermediate or central section or member 16 is also a solid strip of sheet material having its lateral longitudinal edges formed to provide guidelines for sliding engagement with the opposite side edges of the top strips 24 and 25. For this purpose the simplest and most effective form for these guides is to bend the opposite longitudinal edges of the member 16 downwardly and inwardly or backwardly, as shown at 26, forming longitudinal guides in the form of channels at the under side of the member 16 in which the opposite edges of the top strips 24 and 25 are seated and telescoped for longitudinal sliding adjustment between this intermediate member 16 and the end members 17 and 18, to adjust the device to fit windows of different sizes. Also to help retain the device in position within the window, each end section 19 has a short lower edge 27 in which there is provided an upwardly extending notch 28 adapted to seat over the top of a longitudinal rib or ridge 29 on the lower transverse portion 30 of the window frame adjacent the outer side thereof.

It will be seen from the drawing that the device is of extremely simple construction comprising only the three sections or members 16, 17 and 18, and all three being formed of suitable sheet material, such, for example, as sheet metal; also that the telescoping sliding connection between the three sections is of very simple construction which, while providing an effective, rigid connection between the sections, still permits relative sliding movement between them for effective adjustment to vary the length of the device for use in windows of different widths and proper seating or mounting of the device in the proper position in the frame. The device is not a so-called window "ventilator" that is located on the inside of a house, but is an air duct accessory which, while permitting circulation of air, still is of a solid nonscreen construction which will effectively prevent entrance of rain or snow.

Because of its nonperforate construction and its adaptability for positioning in the opening below the raised lower sash 12 with this sash resting on the top edge of the device, as shown in FIG. 2, it effectively prevents entrance of rain or snow and deflects it outwardly away from the open part of the window.

Hoping thus set forth the nature of my invention, I claim:

1. For use with a metallic triple-track combination screen and window having a frame with three guide tracks, a vertically adjustable sash in one track, a sash in a second track and a vertically adjustable screen in the third track, an air duct accessory comprising: a plurality of metal sheet material parts in the form of a pair of spaced end sections; means for assembling said end sections as an operational unitary assembly and permitting selective longitudinal extension or contraction to adjust the overall length of the assembly to conform to the width of the frame; each of said end sections comprising a generally trianually shaped flat end member comprising an upright inner edge, an upper edge inclined downwardly and outwardly from the top of said inner edge, and a lower edge extending inwardly from the bottom of said
upper edge to the bottom of said inner edge; each of said end sections including flat strip portions extending laterally from said upper edges toward the other end section of a width substantially equal to that of the length of said upper edge; each of said end members having a laterally outwardly extending thin vertical flat flange arranged to be seated in the guide track for the adjustable sash; each of said end members having means for receiving the upper edge of the usual horizontal sill of the frame to aid in positioning and supporting said accessory on said frame; and said strip portions together with said means for assembling said end sections comprising air-deflecting surfaces having top edges that are aligned with each other and arranged to be aligned with the guide track for the adjustable sash whereby the latter may be adjusted to contact said top edges and said air-deflecting surfaces extend downwardly and outwardly relative to said frame when the air duct accessory is operatively mounted in the frame.

2. The air duct accessory defined in claim 1 wherein said receiving means comprises aligned notch means on said lower edges arranged to be seated over the usual upright longitudinal rib formed on the usual horizontal sill of the frame.

3. The air duct accessory defined in claim 1 wherein said means for assembling said end sections comprises an intermediate strip of sheet material provided with guides along opposite top and bottom edges telescoping with the top and bottom edges of said strip portions.

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