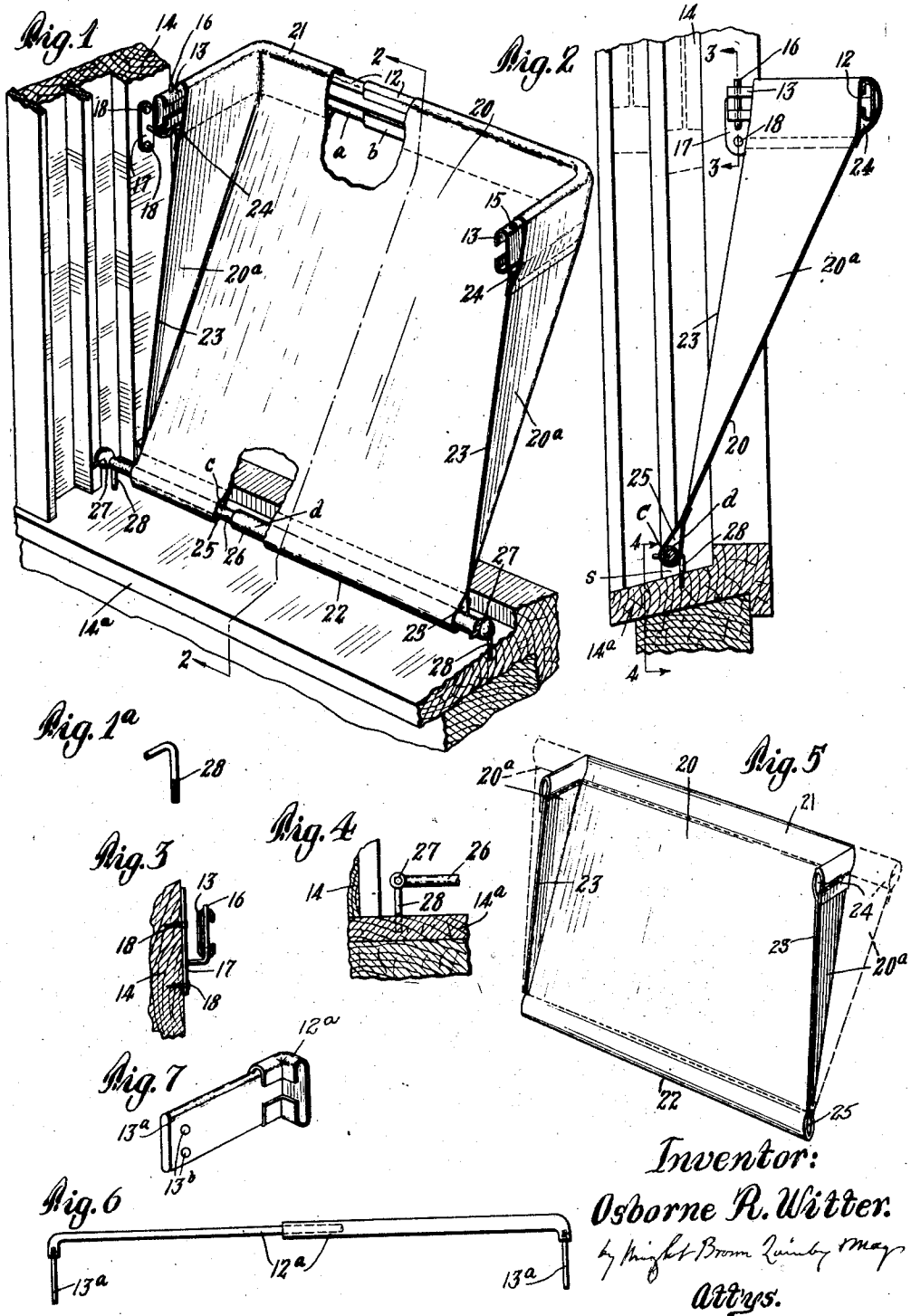


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WINDOW VENTILATOR

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UNITED STATES PATENT OFFICE.

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WINDOW VENTILATOR.

Application filed October 21, 1927. Serial No. 227,668.

This invention relates to a window ventilator comprising a windshield which is co-extensive with the opening formed by raising the lower sash of a window, and means for connecting the shield with the window casing in such manner as to cause the shield to upwardly deflect air passing through said opening, so that the air flows upwardly into the room.

One object of the invention is to provide an efficient ventilator of relatively inexpensive construction and capable of being quickly and conveniently installed and removed.

Another object is to provide improved means enabling the length of the ventilator to be conveniently varied to suit windows of different widths.

Other objects will hereinafter appear.

Of the accompanying drawings forming a part of this specification,—

Figure 1 shows in perspective a ventilator embodying the invention, and portions of a window casing, the sashes being omitted.

Figure 1^a shows in perspective one of the studs shown by Figure 1.

Figure 2 is a vertical section on line 2—2 of Figure 1.

Figure 3 is a fragmentary section on line 3—3 of Figure 2.

Figure 4 is a fragmentary section on line 4—4 of Figure 2.

Figure 5 is a perspective view of the windshield, showing certain modifications.

Figure 6 is an edge view, showing an angular cross-bar of modified construction.

Figure 7 is a fragmentary perspective view, showing an arm of the cross-bar shown by Figure 6, a portion of the windshield, and one of the hooks shown by Figure 5.

The same reference characters indicate the same parts in all of the figures.

I will first describe the preferred embodiment of the invention shown by Figures 1, 2, 3, and 4.

The ventilator comprises an angular windshield-supporting cross-bar, adapted to extend across a window casing and including an elongated neck portion 12, and arms 13, projecting from opposite ends of the neck portion. The arms are provided at their outer ends with means whereby they may be attached to the upright members of a window casing, one of said members, designated by 14, being shown by Figures 1 and 2.

When the arms are thus attached, the neck portion projects invariably inward from the casing.

The cross-bar and arms 13 are preferably made of sheet metal, bent as shown by Figures 1, 2 and 3, to form stiffening flanges projecting inwardly from each of their longitudinal edges, the neck portion being preferably composed of two telescopic sections *a* and *b* (Figure 1), one slidable in the other to vary the length of the cross-bar. The arms 13 have orifices 15 (Figure 1) forming sockets adapted to receive studs 16, attached to plates 17, which may be attached by screws 18 to the two upright casing members 14.

The ventilator comprises also a flexible windshield 20, of any suitable cloth, having a relatively long upper edge 21, whose length is substantially equal to the aggregate length of the neck portion 12 and arms 13, a shorter lower edge 22, whose length is substantially or approximately equal to the distance between the upright members 14 of the casing, and intermediate edges 23, 23, extending between the ends of the longer and shorter edges.

The longer edge of the windshield is provided with a longitudinal hem, forming a longer upper pocket 24, open at its ends, through which the angular cross-bar extends, the pocket being slidable on the cross-bar, so that it may be readily applied and removed, and puckered. The shorter edge of the windshield is provided with a longitudinal hem, forming a shorter lower pocket 25, open at its ends and receiving a straight lower cross-bar 26, the ends of which project from the pocket and have sockets 27, adapted to receive studs 28, attached to the sill member 14^a of the casing. The studs 28 are screw-threaded at their lower ends and screwed into the sill member, each stud being angular, so that its upper end which enters the socket 27, is horizontal. The lower cross-bar 26 is preferably composed of two telescopic sections *c*, *d* one slidable in the other to vary the length of the cross-bar.

When the windshield is engaged with the angular upper cross-bar 12, 13, and with the lower cross-bar 26, and the ends of the cross-bar arms and of the lower cross-bar 26 are engaged respectively with the studs 16 and 28, and an angular form is imparted by the assembling operation to the longer upper

edge of the shield, the upper edge and the major portion of the shield conforming to the angularity of the cross-bar. The length of the lower edge of the shield being substantially or approximately equal to the distance between the upright casing members 14, it follows that when the ventilator is adjusted for use, the end portions of the shield form triangular flanges 20^a conforming to the upright casing members 14. The shield, therefore, forms one side and opposite ends of a flue adapted to upwardly deflect air entering at the opening formed by raising the lower sash.

The ventilator may be quickly applied and removed, by engaging the cross-bars with the studs, and removing them therefrom.

The pockets 24 and 25, slidable on the angular upper and lower cross-bars enable the width of the windshield to be conformed to the length of the cross-bars when said parts are telescopic and of variable length, the windshield being puckered on the cross-bars when the width of the ventilator is decreased.

I prefer to support the lower edge of the windshield above the sill member 14^a of the casing, to form an air space at *s* (Figure 2) for the egress of air displaced within the room by air deflected upwardly into the room by the windshield.

The angular cross-bar may be constructed as shown by Figures 6 and 7, and may include solid arm portions 13^a engaged with the bent ends of telescoping sheet metal portions 12^a. The arm portions 13^a may be provided with holes 13^b to receive screws or nails, attaching the arm portions to the upright members 14 of the casing.

I claim:

1. A window ventilator comprising an angular upper cross-bar including a neck portion and arms projecting laterally therefrom and having securing means attachable to upright members of a window casing, to support the cross-bar, and maintaining the neck portion invariably spaced from the casing, a straight lower cross-bar formed to extend between said upright members, and having

means attachable to the sill member of the casing, and a flexible windshield having an elongated upper edge, formed by an upper pocket adapted to receive the neck portion and the arms of the cross-bar, a shorter lower edge, formed by a lower pocket adapted to receive the lower cross-bar, and intermediate straight edges extending between said pockets, the upper cross-bar being composed of sheet metal having stiffening flanges formed on the opposite longitudinal edges of the neck and arm portions thereof, so that said cross-bar is of minimum weight and adequate stiffness.

2. A window ventilator comprising an angular upper cross-bar, including a telescopic neck portion, adjustable in length, and composed of two sections, one slidable on the other, and arms projecting laterally from the ends of the neck sections, a straight lower cross-bar, adjustable in length, and composed of two sections, one slidable on the other, and a flexible windshield having an elongated upper edge formed by an upper pocket, and adapted to loosely receive the neck portion and arms of the upper cross-bar, a shorter lower edge formed by a pocket adapted to loosely receive the lower cross-bar and intermediate straight edges extending between said pockets, the arms of the upper cross-bar and the ends of the lower cross-bar being provided with means for attachment to upright members and the sill member of a window casing, said means maintaining the two cross-bars at any length to which they may be adjusted, the pockets being adapted to be puckered on the cross-bars to conform the length of the windshield to the length of the cross-bars, the angular cross-bar being composed of two L-shaped sheet metal strips, each constituting a neck section and an arm, and each having stiffening flanges bent inwardly from each of its longitudinal edges, the neck section of one strip being slidable in the neck section of the other.

In testimony whereof I have affixed my signature.

OSBORNE R. WITTER.