Jan. 12, 1932. G. H. GUSTAFSON 1,840,667

VENTILATOR

Original Filed March 29, 1929

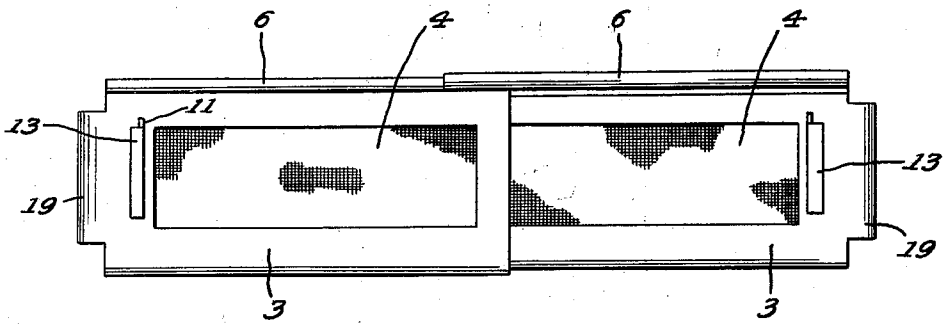


FIG. 1

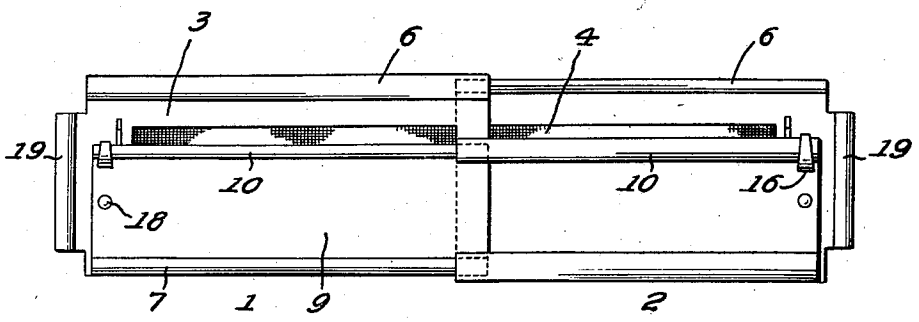


FIG. 2

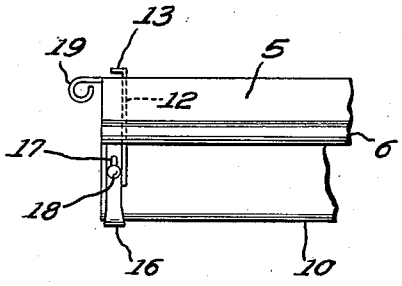


FIG. 3

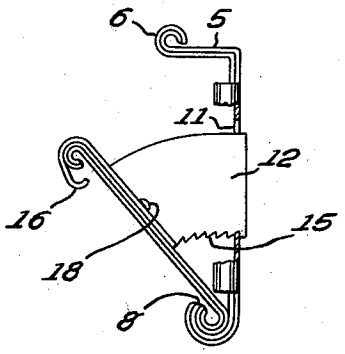


FIG. 4

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UNITED STATES PATENT OFFICE

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VENTILATOR

Application filed March 29, 1929, Serial No. 351,033. Renewed August 13, 1931.

This invention relates to improvements in ventilators and more particularly to window ventilators and its object is to provide a device of this type that is adjustable and so applicable to windows of practically all sizes, that is storm proof, that will not admit rain, snow or hail, that filters the air before admitting it and that is capable of instant installation or removal by anyone, not requiring the services of a skilled tradesman or mechanic for this purpose.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described, pointed out in the claims and illustrated in the accompanying drawings which form a part of this application for patent and in which—

Fig. 1 is a back or outside view of the ventilator in elevation.

Fig. 2 is a front or inside view of the same in open position.

Fig. 3 is a fragmentary plan view of the ventilator.

Fig. 4 is a view in end elevation and partly in section.

Like reference characters denote corresponding parts throughout the several views.

The present ventilator is of sectional formation, the sections being telescopic so that the length of the ventilator may be increased or diminished at will, said sections comprising relatively adjustable portions connected together and movable at right angles to the longitudinal axis for increasing or diminishing the air intake capacity of the device. By means of these relatively adjustable portions the ventilator may be closed entirely if desired while the window receiving the ventilator is open.

The ventilator is installed by merely raising the lower window sash and setting the ventilator in position upon the sill and then so adjusting the ventilator sections longitudinally of the sill as to cause its lateral edges to seat between the window stops, the sash then being lowered into contact with the top of the ventilator.

The reference numerals 1, 2 denote the telescopic sections of the ventilator which, as shown in Figs. 1 and 2, are here extended to give the device its maximum length, substantially. The sections are substantially identical and each comprises an oblong frame 3 formed with an elongated opening to receive the wire screen 4, the upper edges of said frames being bent inwardly to form the ledges 5 and then rolled to form the portions 6 which are received one into the other, the ledges 5 being adapted to receive the lower window sash (not shown) when the ventilator is in position.

The lower edge 7 of each section is rolled inwardly to receive the similarly rolled edge 8 of an adjustable wing 9, the rolled edges 7, 8 thus forming a hinge to permit the relative movement of said wing with respect to the frame 3, the rolled edges 7, 8 of one section being received in the edges 7, 8 of the other. The upper edge 10 of each wing is rolled, said edges telescopically engaging each other.

Each frame 3 is formed with a vertical slot 11 to receive one end of a rack 12 the extremity of which is then bent laterally to form the flange 13, a like flange formed upon the opposite end of said rack being extended upwardly beyond the rack and forming the finger 16, each rack being formed along its lower edge with the teeth 15 for releasable engagement with the frame 3 at the bottom of its slot 11, said finger 16 being formed with a slot 17 for passage of the pin 18 whereby it is adjustably secured to the wing 9, the upper end of said finger extending about the rolled edge 10 thereof.

By moving the finger over the said wing the rack is moved in the slot 11 and the rack teeth 15 caused to releasably lock the wing in any adjusted position relative to the frame 3.

The frames 3 are formed along their relatively remote lateral edges with the vertical rolled edges 19 which are adapted for disposal between the vertical stops of the window casing, the sections 1, 2 being moved out and in by using the rolled edges 10 as handles. The wings 9 are adjusted toward and away from the frames 3 by means of the fingers 16 which can release the racks 12 to permit free movement of the wings.

In Fig. 4 the ventilator is clearly shown in wide open position. To partially close it the finger 16 is raised, the slot 17 permitting sufficient movement, until the integral rack 12 clears the bottom of the slot 11 in the frame 3. It will be noted that the slot 11 is of sufficient extent to permit this movement of the rack 12 therein. The wings 9 may be moved now to the desired position and the finger again moved down into engagement with the wing which will again cause the rack to lock with the frame 3.

What is claimed is:—

1. In a ventilator, telescopic sections, each section comprising a stationary portion and a relatively adjustable portion, and means for releasably locking said adjustable portions to said stationary portions, said means including fingers extending over the upper edges of said adjustable portions.

2. In a ventilator, telescopic sections, each section comprising a stationary portion and an adjustable portion, the upper and lower edges of said portions being rolled and slidably interfitting, the lower edges of said portions forming a hinge, and locking means releasably securing said adjustable portions to said stationary portions.

3. In a ventilator, telescopic sections, each section comprising a stationary portion and an adjustable portion, the upper and lower edges of said portions being rolled and slidably interfitting, the lower edges of said portions forming a hinge, and locking means releasably securing said adjustable portions to said stationary portions, said means including fingers extending over the upper edges of said adjustable portions.

4. In a ventilator, telescopic sections comprising frames, a wing hinged to each frame, a screen in each frame, racks connecting said frames and wings, and fingers integral with said racks and adjustably secured to said wings.

In testimony that I claim the foregoing as my own I have hereto affixed my signature.

GEORGE H. GUSTAFSON.