

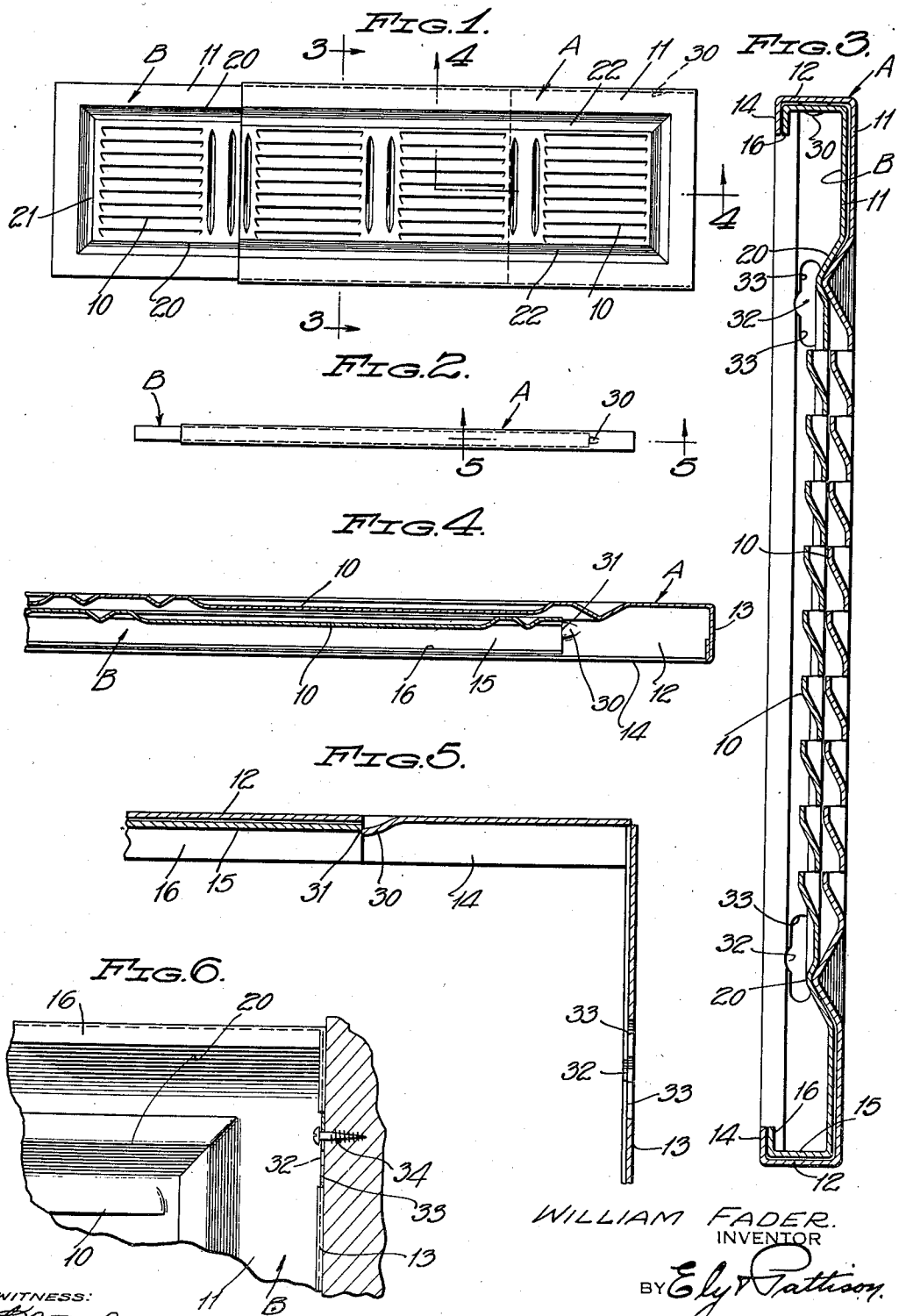
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WINDOW VENTILATOR

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WINDOW VENTILATOR

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2 Claims. (Cl. 98—99)

This invention relates to new and useful improvements in ventilators for window openings and more particularly it pertains to ventilators of the type which are extensible within certain limits to various sizes of window openings.

It is the primary object of the present invention to improve the construction and operation of the afore-mentioned type of ventilators thereby rendering them more adaptable to the purposes intended.

A feature of the invention resides in a novel construction whereby two sliding telescoping sections, such as are commonly employed in ventilators of the afore-mentioned type, may be possessed of free sliding action without binding of the parts.

A further feature of the invention resides in novel means for limiting the sliding movement in one direction of the telescoping sections and thereby prevent pinching or otherwise damaging the hands of a person in their attempt to adjust the telescoping sections.

Still a further feature of the invention resides in a novel construction whereby the telescoping sections will occupy close relation to each other as distinguished from a relatively wide spacing between the members ever present in such devices as commonly constructed.

Still a further feature of the invention resides in a novel construction whereby the ventilator may be secured in the opening of a window frame at a point just in advance of the window with either of its side edges uppermost.

Other features of the invention relate to certain novel and improved constructions, arrangements and combinations of parts hereinafter described and particularly pointed out in the claims, the advantages of which will be readily understood and appreciated by those skilled in the art.

The invention will be clearly understood from the accompanying drawing illustrating the invention in its preferred form and the following detailed description of the constructions therein shown.

In the drawing:

Figure 1 is a view in elevation of a ventilator constructed in accordance with the present invention,

Figure 2 is a top edge plan view thereof,

Figure 3 is a transverse sectional view on an enlarged scale substantially on the line 3—3 of Figure 1,

Figure 4 is a fragmentary horizontal sectional view on an enlarged scale taken substantially on the line 4—4 of Figure 1,

Figure 5 is a detail sectional view on an enlarged scale, taken substantially on the line 5—5 of Figure 2, and;

Figure 6 is a detail view in elevation partly in section illustrating the manner in which the ventilator is retained in the frame of a window opening.

A ventilator constructed in accordance with the present invention comprises a plurality of telescoping sections of which there are two illustrated in the present embodiment of the invention.

The two telescoping sections are designated A and B in the drawing, the section A being the front section, the rear section being the one designated B. The sections are telescoped one within the other and have relative sliding movement, the rear section B being the smaller of the two sections to permit of the afore-mentioned relation thereof.

Each of the sections consists of a panel member having a plurality of louvers 10 therein so arranged in the sections as to provide a border portion 11 which defines the two side edges and the outer end edge of each section.

The section A is formed with two side edge flanges 12 and an end flange 13 which flanges extend at substantially right angles to the plane of the body portion of the section and each of these flanges is formed with a flange 14 which extends substantially at right angles to the plane of the flange from which it extends. This construction provides a trackway to the rear of the section A in which the section B is adapted to be mounted.

The section B is formed upon each of its side edges and upon one of its end edges with a rearwardly extending flange 15 similar to the flanges 12 of the section A, except that the flanges 15 are naturally narrower than their respective flanges 12, as best illustrated in Figure 3 of the drawing. Extending substantially at right angles to each of the flanges 15 of the section B, there is a flange 16 as best illustrated in Figure 3.

The width of the flanges 15 with relation to the width of their respective flanges 12 is such that they serve as guides or tracks when the two sections A and B are telescoped together and by reason of the fact that the flanges 12 and 15 extend rearwardly of their respective sections, the panel portion of the sections, which carry the louvers 10, are positioned in close proximity to each other as illustrated in Figure 3 of the drawing.

Ventilators of the type herein described are

constructed from relatively light sheet metal and as a result, there is a decided tendency to distortion of the sections when they are moved relatively to each other. This distortion causes a binding of the sections considerably hampering their operation and often resulting in permanent damage or injury to the sections.

In order to eliminate, to a considerable degree at least if not entirely, this tendency on the part of the sections to distort, the present invention provides additional guiding means which acts to maintain the sections in proper alinement for free and easy sliding movement between the sections.

Referring to the drawing, it will be noted that the section B is formed upon its front face with two grooves or channels 20 which are preferably of V-shape. These grooves or channels 20 define the inner side edges of the border 11 heretofore mentioned and to maintain the general ornamental design of the device, they are connected at one end of the section by a similar groove or channel 21, which, however, has no mechanical function.

The section A is formed upon its front face with grooves or channels 22 similar to the aforementioned grooves or channels 20 of the section B and are intended to match with said grooves or channels of the section B when the sections are in telescoped relation. The grooves or channels 22 of the section A are connected at their outer ends by a groove or channel 23 similar to the groove or channel 21 heretofore mentioned thus maintaining the general continuity of design.

The formation of the grooves or channels 22 in the section A provides rearwardly projecting ribs or beads 25 upon the rear face of the section A and the several parts are so arranged and so proportioned that when the sections are telescoped together, the ribs or beads 25 of the section A will be received in their respective grooves or channels in the section B in such a manner as to have a sliding and yet guiding fit therein.

By this construction, the tendency on the part of the sections A and B to distort is reduced to a minimum and it has been found in actual practice that a more efficient sliding action between the sections is obtained than is possible of attainment with the construction ordinarily employed.

The device of the present invention is also provided with means to limit the sliding movement of the sections in a direction towards each other in such a manner that the edge of the inner end of each section is prevented from engagement with the end flange upon the outer end of each section, thereby preventing pinching of the fingers by reason of movement to completely telescoped position.

This means consists of a stop struck from one of the flanges 12 of the section A and adapted to be engaged by the edge of the inner end of the section B when the sections are moved in the direction towards each other.

The stop heretofore referred to is best illustrated in Figures 4 and 5 of the drawing and is designated 30 in said figures. As shown, the stop is struck inwardly from the upper flange 12 of the section A at such a location that as the two sections are moved in a direction towards each other, the inner end edge of the section B will engage the stop 30 as shown at 31 in Figures 4 and 5 to limit the relative movement of the sections A and B towards each other as and for the purpose described.

As heretofore stated, the ventilator may be secured within a window opening with either of its side edges uppermost and to accomplish this result the following construction is employed.

Each section is provided in its end flange 13 with two openings. These openings are all of the same character and each consists of a substantially circular central portion 32 and oppositely extending elongated portions 33 which extend in opposite directions from the circular portion 32 as best illustrated in Figure 3 of the drawing. These openings are so positioned that each is the same distance from its respective side edge of the ventilator and when the ventilator is placed in a window opening two screws such as 34 in Figure 6 are employed, there being one of such screws employed at each side of the window opening.

If the heads of the screws 34 are inserted through their respective circular portions 32 of the openings and the ventilator moved into engagement with the sill of the window opening, the bodies of the screws will pass into the upper elongated portions of the openings and the heads of the screws will serve to hold the ventilator in place against accidental displacement.

The openings referred to being spaced the same distance from their respective side edges of the section in which they are formed, the ventilator, with but two screws, one at each side of the window opening, may be positioned with either of its edges uppermost.

Thus it will be apparent that the present invention provides a new and improved ventilator and while the invention has been herein illustrated in its preferred form, it is to be understood that it may be carried out in such other forms as rightfully fall within the scope of the appended claims.

Having thus described the invention, what is claimed as new, is:

1. A window ventilator comprising two telescoping sections adapted for sliding movement relative to each other, said sections having interengaging side edge flanges to aid in guiding the sections during their relative sliding movement and additional means for guiding the sections in their sliding movement comprising a channel near each side edge of one of the sections upon the front face thereof and a bead near each side edge of the other section upon the rear face thereof, the beads on the second mentioned section being received in their respective channels of the first mentioned section when the sections are telescoped together.

2. A window ventilator comprising two telescoping sections adapted for sliding movement relative to each other, said sections having interengaging side edge flanges to aid in guiding the sections during their relative sliding movement and additional means for guiding the sections in their sliding movement comprising a channel near each side edge of one of the sections upon the front face thereof and a bead near each side edge of the other section upon the rear face thereof, the beads on the second mentioned section being received in their respective channels of the first mentioned section when the sections are telescoped together, and means for limiting in one direction, the sliding movement of said sections.

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