Dec. 12, 1933. J. H. DIXON 1,939,294

AIR DEFLECTING VENTILATOR

Filed Aug. 15, 1932

Fig. 1.

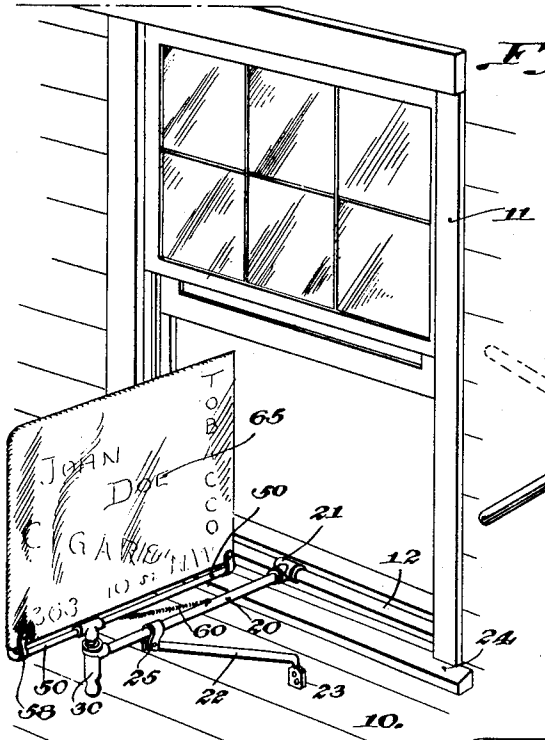


Fig. 2.

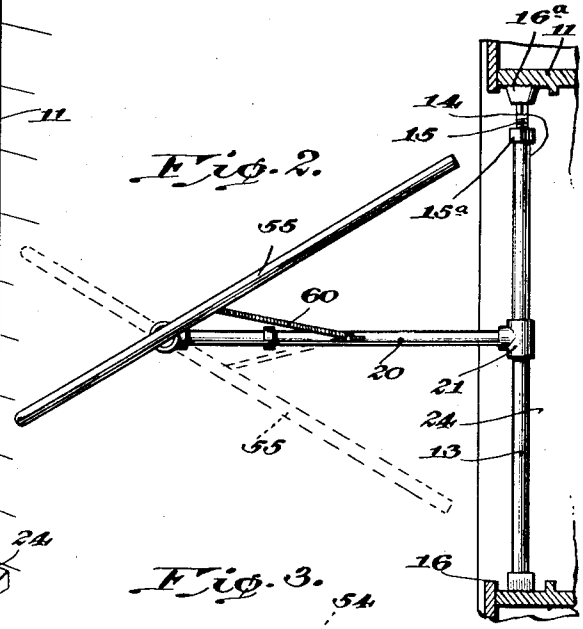


Fig. 3.

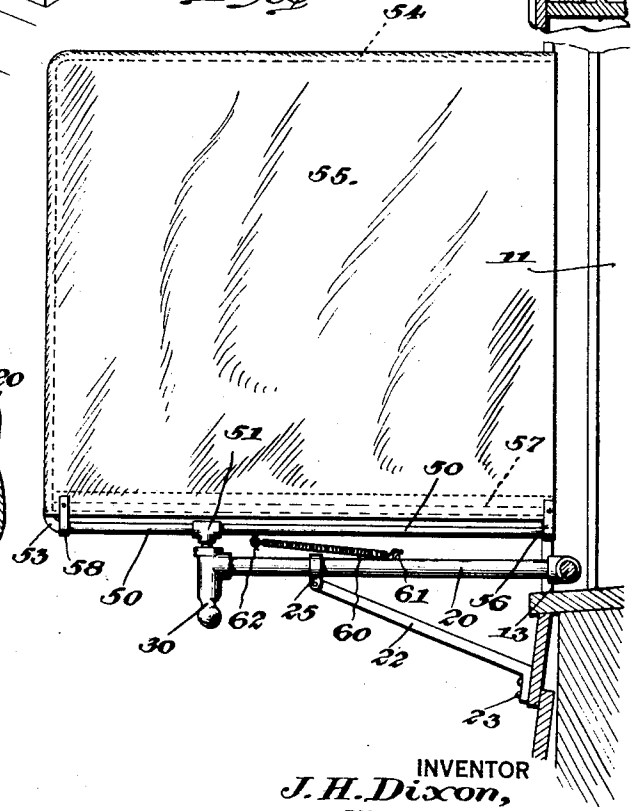
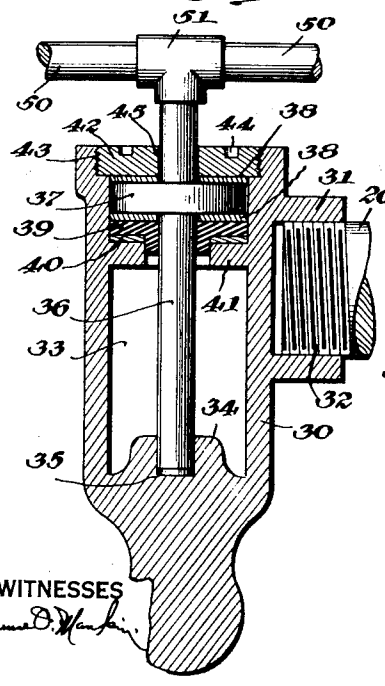


Fig. 4.



WITNESSES

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AIR DEFLECTING VENTILATOR

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Application August 15, 1932. Serial No. 628,943

4 Claims. (Cl. 98—44)

This invention relates to improvements in air deflecting ventilators.

An object of the invention is the provision of a device which is not only held at right angles to the plane of a window by a spring but is pivotally mounted beyond its line of passage through the center of the device so that the same may be moved in opposite directions depending upon the direction of the wind for deflecting air currents into an open window.

A further object of the invention is the provision of a device including a vane for deflecting air currents through a window in a building, the angle of deflection varying with the intensity of the air circulation and the tension of the spring which normally retains the vane at right angles to the surface of the window.

A still further object of the invention is the provision of a device for deflecting air currents through a window in a building which includes a vane movable by the current of air coming in contact with the vane, said vane having indicia thereon providing a movable display sign, a spring or other means being employed for normally maintaining the vane at right angles to the surface of the building.

This invention will be best understood from a consideration of the following detailed description, in view of the accompanying drawing forming a part of the specification; nevertheless, it is to be understood that the invention is not confined to the disclosure, being susceptible of such changes and modifications which shall define no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

Figure 1 is a view in perspective of my air deflecting device applied to a window.

Figure 2 is a horizontal section through the building showing a plan view of the air deflecting device.

Figure 3 is a vertical section showing the normal vertical position of the deflecting vane, and

Figure 4 is a vertical section of the pivoted support for the vane.

Referring more particularly to the drawing 10 designates the wall of a building in which a window is provided having a frame 11 embracing the opening which forms a window.

A rod 12 is formed in two pieces 13 and 14 which are threaded into a T 21. The member 13 is provided with a disc 16 which may be secured to an inner face of the frame 11. A disk or foot piece 16^a is provided with a screw 15 and a nut 15^a cooperates with the member 14 and the screw for clamping the rod 12 in position.

A rod 20 extends from the rod 13 at right angles and outwardly thereto and is connected to the rod 13 by the T 21. The rod 20 is supported in a substantially horizontal position by means of a brace 22 which has a flat portion at its inner end as shown at 23 and connected to the wall 10 below the sill 24 of the frame 11. The outer end of the brace is provided with a U-shaped strap 25 which embraces the rod 20 so that this rod will be maintained in proper position.

A bearing 30 has a lateral sleeve 31 threaded at 32 onto the end of the rod 20. This bearing will provide a hollow chamber 33 which may be filled with lubricant. The lower end of the chamber has a centrally disposed boss 34 at the bottom thereof provided with a socket 35 to receive the lower end of the pintle 36.

The pintle is provided with an integrally formed disk or flange 37 which is received between a pair of washers 38. A packing 39 is supported by a third washer 40 resting upon an annular shoulder 41 formed integrally with the inner wall of the bearing 30. A cover 42 is threaded at 43 into the upper end of the bearing 30 and is provided with sockets 44 adapted to be engaged by a suitable tool for retaining the same. The cover 42 has a passage 45 through which the pintle 36 passes. This cover also seals the top of the bearing 30 against the loss of lubricant in connection with the packing 39.

A rod 50 is received by a T 51 which is secured to the upper end of the pintle 36. The T is welded to said rod. The outer end of the rod 50 is carried upwardly as shown at 53 and then inwardly in a horizontal manner as shown at 54 to provide a frame for a vane 55.

The rod 50 has its inner end, as shown at 56, connected to the lower end of the framework 57 to form the bottom of the vane 55.

A clip 58 connects the rod 50 with the outer end of the frame 57 in the same manner as the clip 56 connects the inner end of the rod 50 with the lower portion of the frame.

A spring 60 has one end of its ends secured at 61 to the rod 20 while the other end is secured at 62 to the rod 50 and this spring is of sufficient tension to normally maintain the vane 55 in its normal position which is perpendicular to the front face of the building.

As shown more particularly in Figure 1, any kind of advertising indicia 65 may be applied to

the opposite faces of the vane 55 and since the vane is movable at all times because of air currents the vane makes an excellent advertising medium due to the movability of the vane for attracting the attention of a passer-by.

The inner end of the vane 56 will be moved in accordance with the direction of the wind and will tend to direct the air currents into the opening in the window-frame when one of the windows has been raised. The spring 60 will return the vane to its normal inoperative position when the air currents have ceased or when the air currents are not sufficiently strong to move the vane against the tension of the spring 60 the maximum position of the vane would be in parallel relation to the wall 10 of the building.

A coil spring may be located in the bearing 30 and have one end secured to the pintle 36 and the other end fastened to the bearing. In the event of a very high wind or storm, the vane will line up with the direction of the air before the wind becomes strong enough to damage the window, the vane acting as a safety valve both ways. The distance between the outer end of the frame and the point of connection between the pintle 36 and the rod 50 of said frame is approximately one-third the length of the frame so that the greater portion of the vane will swing before the opening in the window. The remaining or lesser portion of the vane acts as a buffer and in connection with the spring 60 operates to stabilize the vane when it has reached a state of rest or an approaching state of rest.

I claim:

1. An air deflecting device for windows comprising a supporting rod extending outwardly at right angles to a window, means for securing the rod in position, a hollow bearing at the outer free end of the rod and having an open upper end, a pintle vertically disposed in the bearing and provided with an annular flange, a shoulder in the bearing and supporting the flange and pintle, a closure for the bearing and co-operating with the shoulder to retain the pintle in position, a vane carried by the pintle, and a spring for retaining the vane normally in vertical alinement with the supporting rod.

2. An air deflecting device for windows comprising a supporting rod, means for securing the rod to a window, a bearing at the outer free end of said rod, a pintle mounted in the bearing, a frame secured to the pintle intermediate the ends of the frame, a vane carried by the frame, and a spring for retaining the frame and vane normally at right angles to the plane of the window, the spring being connected to the supporting rod and frame and inwardly of the pintle.

3. An air deflecting device for windows comprising a supporting rod, means for securing the rod to a window, a bearing at the outer free end of said rod, a pintle mounted in the bearing, a frame secured to the pintle, a vane carried by the frame, a spring for retaining the frame and vane normally at right angles to the plane of the window, the pintle being connected to the frame outwardly of a vertical line passing through the center of the vane, the ends of the spring being connected to the rod and frame at points upon opposite sides of the vertical line passing through the center of the vane.

4. An air deflecting device for windows comprising a supporting rod, means for securing the rod to a window, a bearing at the outer free end of said rod, a pintle mounted in the bearing, a frame secured to the pintle, a vane carried by the frame, a spring for retaining the frame and vane normally at right angles to the plane of the window, means for removably retaining the pintle in the bearing, said pintle being connected to the frame at a point which is located at approximately one-third the length of the frame from the outer end of said frame.

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