May 5, 1936. B. A. MORTON 2,039,826

VENTILATING DEVICE

Original Filed May 2, 1930

Fig. 2.

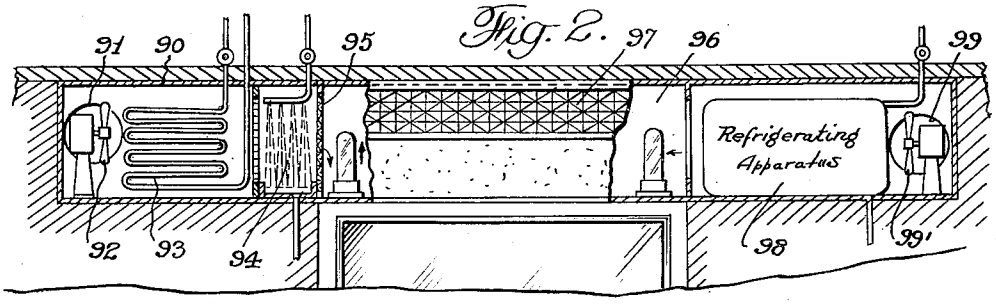
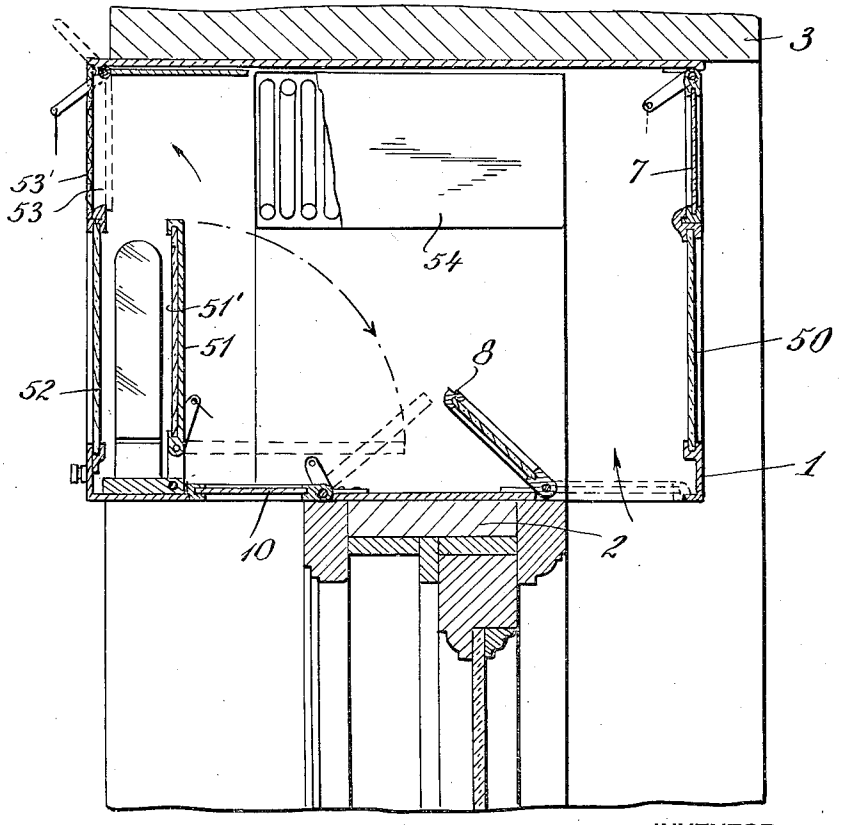


Fig. 1.



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Patented May 5, 1936 2,039,826

UNITED STATES PATENT OFFICE

2,039,826

VENTILATING DEVICE

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Original application May 2, 1930, Serial No. 449,170. Divided and this application February 25, 1933, Serial No. 658,635

1 Claim. (Cl. 98—88)

This invention relates to devices for ventilating rooms, and its chief object is to provide a device which will furnish improved ventilation and improved control thereof, and will at the same time add directly to the illumination of the room.

Another object of the invention is to provide a device of this nature which will not only ventilate the room in an improved manner but by which also the temperature and humidity of the air in the room can be regulated in any desired manner.

A particular object of the invention is to provide a device of this character which may be incorporated in an ordinary window without any structural changes therein and which will be cheap to make and sell, yet simple in operation and durable in service.

This application is a division of applicant's case Serial No. 449,170 filed May 2, 1930. An embodiment of the invention is shown in the accompanying drawing by way of illustration, but the invention itself is limited only by the scope of the subjoined claim. In the drawing:

Fig. 1 is a vertical section of a structure on which the present invention is based, and

Fig. 2 is a longitudinal section of the presently preferred embodiment.

I have shown in Fig. 1 a device having a casing, and a rear wall **50** of the casing formed of perfectly transparent glass, so that light may be freely admitted into the box and into the room. A draft back-plate and reflector member **51** is provided, and is hinged at its lower edge and can be swung away from the vertical to various angular positions, so that light entering through wall **50** will be reflected from the plane mirror **51'** of the reflector into the room through the diffusing member **52**. By this arrangement, the lamps may be left unlighted at all times during the day except when the weather is cloudy or when ventilation changes are desired. The convection current for inducing the flow of air to the outside air may instead be set up by a steam heating element **54**, which is to this end arranged and laid along the roof and sides of the box. I also provide an air filter **53** over a feeder port **53'**, in order to remove dust and the like from the fresh air as it is fed into the room.

The present invention contemplates providing means, where it is deemed advisable to make special provisions for compensating for the seasonal variations in temperature and humidity, as in order to maintain a certain predetermined optimum condition of the air in a room, and to this end I provide a casing such as that shown at **90** in Fig. 2, in which, when the weather is chilly, I let in the air through a port **91**. I provide a fan **92** in line with this port to aid in obtaining the proper quantity of air, and this fan forces the air over a radiator **93**. Thence the air passes through a humidifier **94**, whence it passes through an air filter **95** and thence into the compartment **96**. This compartment is constructed and functions in essentially the same manner as that of Fig. 1. It supplies properly conditioned air to the room through the grille **97**. For warm weather use, I provide a refrigerating apparatus **98** between port **99** and the compartment **96**, a fan **99'** being provided to accelerate the flow of air on occasion.

I claim

A window-ventilation device, comprising a casing arranged between the lintel and the wall, the outer side thereof having an air inlet, an air propelling member opposite said opening, a heat-transferring member in alignment with said propelling member and extending longitudinally of the casing, a member in the casing for increasing the humidity of the air forced over said heating member, said humidifying member having an air intake and an air discharge therein, and means in said casing in communication with said humidifier on one side and with the room on the other for positively drawing air from said humidifier and expelling it into the room.

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