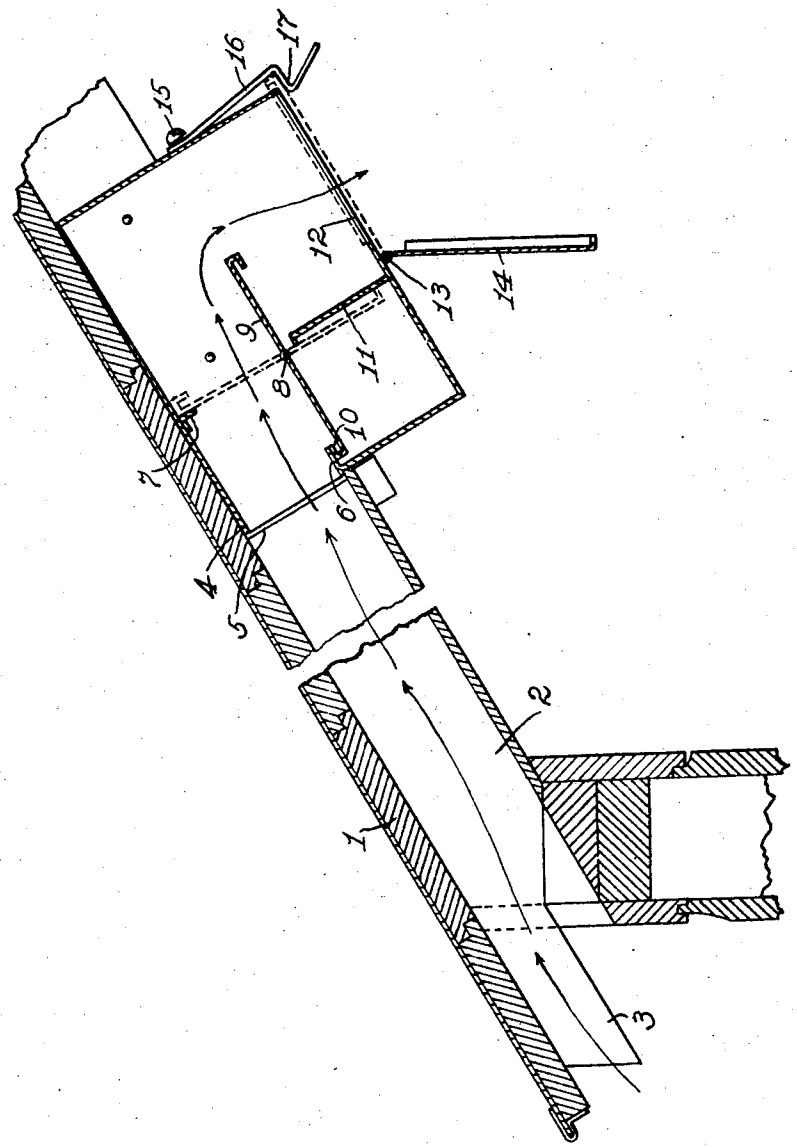
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INTAKE VENTILATOR

Filed Jan. 29, 1926



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INTAKE VENTILATOR.

Application filed January 29, 1926. Serial No. 84,649.

Our invention relates to improvements in intake ventilators, and the object of our improvement is to supply for use in animal housings and the like, a simple, inexpensive device of this class, adapted to insure a sufficient amount of fresh air, and possessing automatic means for regulating or preventing back drafts therethrough.

This object we have accomplished by the means which are hereinafter described and claimed, and illustrated in the annexed drawing, which is a detail cross sectional view of a part of a roof structure which includes our improved intake ventilator.

We do not wish to be limited to the exact showing made in said drawing, as it is to be understood that considerable changes may be effected in the structures and the method of their cooperation, without departing from the invention, or the protective scope of our claims.

In housings provided for hogs or other animals or poultry, it is imperative that proper ventilation be provided, without thereby adding much to the expense of installation.

The figure represents a portion 1 of a sloping roof having rafters 3 supported upon wall members which will not be particularly described as the invention may be easily associated with any description of roof as used in such buildings. Between spaced rafters 3 and opening outwardly of the building a framed air-duct 2 is provided leading into a draft-controller box 4 through an aperture 5.

This box is preferably rectangular and has its lower part projecting downwardly into the interior of the building to deliver air thereinto from without through a large port opening 12 in its bottom. This opening 12 has a swinging closure 14 hinged at 13 to swing up or down, and in closed position to be retained releasably by the engagement therewith of a spring clip 16 and its angular terminal catch 17. The lower part of the box 4 has a cross partition 11, just above which is a pintle 8 of a medially pivoted damper or backdraft controlling member 9 having offset terminal edges 10.

Stop-bars 6 and 7 are respectively fixed across the inlet end and the top of the box 4, within the scope of movement of the opposite swinging ends of the damper 9.

It will be seen that when the closure 14 is swung down, as indicated by the arrows, a current of fresh air will pass through the duct 2 into the box inlet opening 5 and past the damper 9, swinging the latter to the position shown with one offset terminal closed against one of the stop-bars 6. Thence the current passes down into the interior of the building by way of the open port 12.

However, in the event that a back-draft occurs upwardly through the port 12, the part of the damper 9 which projects into the ascending current is swung by it upwardly to the position indicated by the dotted lines, closing the damper offset edge against the upper cross-bar 7, whereby the passage through the box 4 is closed until another entering current from the outside of the building swings back the damper. The damper is thus automatically governed, and as the damper is constructed to be pivoted in equilibrium, its parts being of equal weight, it remains in the positions indicated as governed by either of the opposed currents.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is:

1. An intake ventilator, comprising a box mounted in a building, having an inlet-port in communication with the atmosphere, and having a discharge-port in communication with the interior of the building, a closure removably closing said discharge-port, means for releasably securing said closure in its closed position, and a medially pivoted damper mounted in equilibrium in said box intermediate said ports and movably cooperating with parts thereof to be opened by an inwardly directed draft and to be closed by a back draft and a transverse partition across said box below the pivot of the damper to confine draft action against the upper part only of said damper.

2. An intake ventilator, comprising a box mounted in a building, having means of communication with the outside atmosphere and having a discharge-port within the building, a swinging closure for said discharge port, means for releasably securing

the closure in its closed position, stops fixed within said box of which one is a transverse partition across the box between the discharge- and inlet-ports and below the pivot of the damper, and a medially pivoted damper mounted in equilibrium intermediate said ports within said box to be limited in opposite swinging by said stops to be opened by an inwardly directed draft and to be closed by a back draft operating above said partition against the upper part only of the damper.

In testimony whereof we affix our signatures.

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