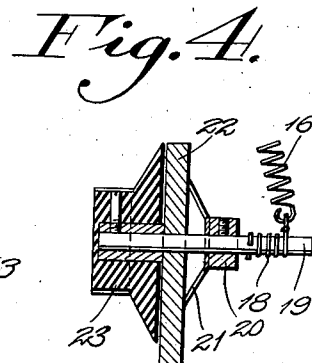
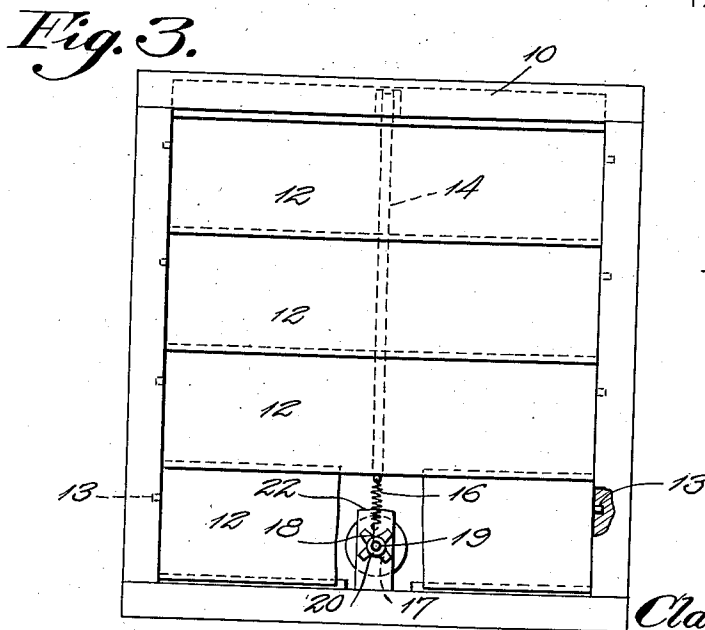
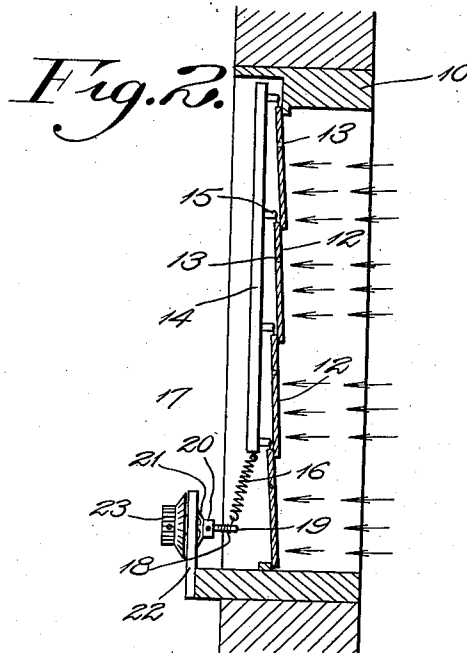
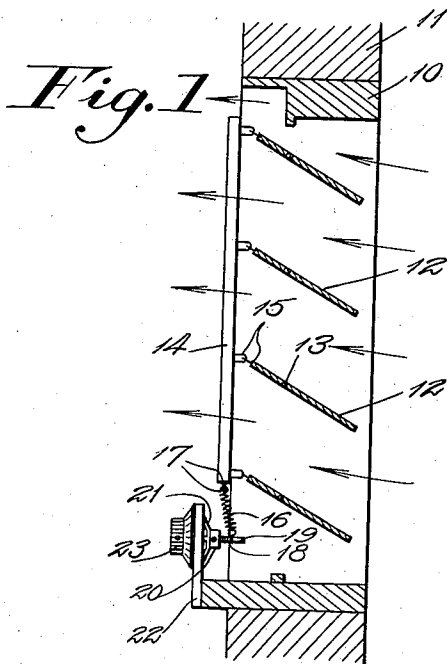


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AUTOMATIC VENTILATOR
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AUTOMATIC VENTILATOR

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2 Claims. (Cl. 98—95)

This invention relates to automatic ventilators and has for an object to provide a ventilator which will automatically control strong drafts through buildings to shut out rain which is frequently driven through a ventilator by high wind.

A further object is to provide a ventilator in which the vanes are normally supported in an inclined position by a spring, the spring being pivotally connected to the vanes, and being connected at its other end to means through which the tension of the spring may be varied, wind pressure above normal against the vanes tending to close the vanes against the tension of the spring, the spring automatically returning the vanes to normal position as soon as abnormal pressure is relieved.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts herein-after fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a longitudinal sectional view showing a ventilator constructed in accordance with the invention in position to control draft through an opening in a building.

Figure 2 is a longitudinal sectional view of the ventilator shown with the vanes closed by abnormally high wind pressure.

Figure 3 is a front elevation of the ventilator and frame thereof, a portion being broken away to expose the spring and its adjusting mechanism.

Figure 4 is a detail sectional view showing the mechanism for tensioning the control spring of the ventilator.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a frame mounted in an opening in a building 11, the frame as usual consisting of upper and lower transverse frame members and upright side frame members.

A plurality of slat vanes 12 are pivotally mounted off-center in the side frame members by pivot pins 13 and normally slope downwardly. A tie rod 14 is pivotally connected to the inner side at the top edge of each vane, preferably inter-engaging staples 15 forming the pivotal connection, although other pivotal connections may be employed.

In the present embodiment of the invention a helical spring 16 is pivotally connected at the upper end to the lower end of the tie rod by inter-engaging eyes 17, or other connectors. The lower end of the spring is connected to a flexible cable 18 which is wound upon a shaft 19 which is rotatably engaged in a collar 20 carried by a resilient spider 21 which bears against a bracket arm 22 mounted upon the inner edge of the lower transverse member of the frame 10. The shaft is equipped with a knob 23 by means of which the tension of the spring 16 may be adjusted.

Ordinarily the vanes 12 slope downwardly and permit gentle drafts to enter the building therebetween. However, in the case of abnormal winds, accompanied by rain, or not, the increased pressure tends to close the vanes as best shown in Figure 2, against the tension of the spring 16. Upon the abnormal pressure being relieved the tension of the spring 16 returns the vanes to a normal open position.

By rotating the knob 23 the cable 18 is wound upon the shaft 19 or unwound therefrom, to adjust the tension of the spring 16 so that the slats may be adjusted to any desired spacing therebetween when in normal open position as shown in Figure 1.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. A ventilator comprising a frame, slat vanes pivotally connected at the ends to said frame, a tie rod pivotally connected to the vanes, a helical spring connected at one end to said rod, a flexible cable connected to the other end of said spring, and a shaft carried by the frame upon which the cable is wound to regulate the tension of the spring, said spring normally holding said vanes open against gentle wind pressure and yielding to permit the vanes to close during abnormal wind pressure.

2. A ventilator comprising upper, lower and upright frame members, a plurality of slats pivotally mounted off center in the upright members, a tie rod pivotally connected to the inner side at the top edge of each ring, a helical spring pivotally connected at the upper end to the lower end of the tie rod, a flexible cable connected to the lower end of the spring, a shaft upon which the cable is wound, a collar through which the shaft is rotatably engaged and having an integral resilient spider, a bracket secured to the lower frame member against which the spider bears, and a knob on said shaft to wind or unwind the cable thereupon and regulate the tension of the spring.

CLAUDE D. PAYDEN. 60