March 24, 1931. M. G. SISUNG 1,798,041

VENTILATOR

Filed Dec. 15, 1928

Fig. 1.

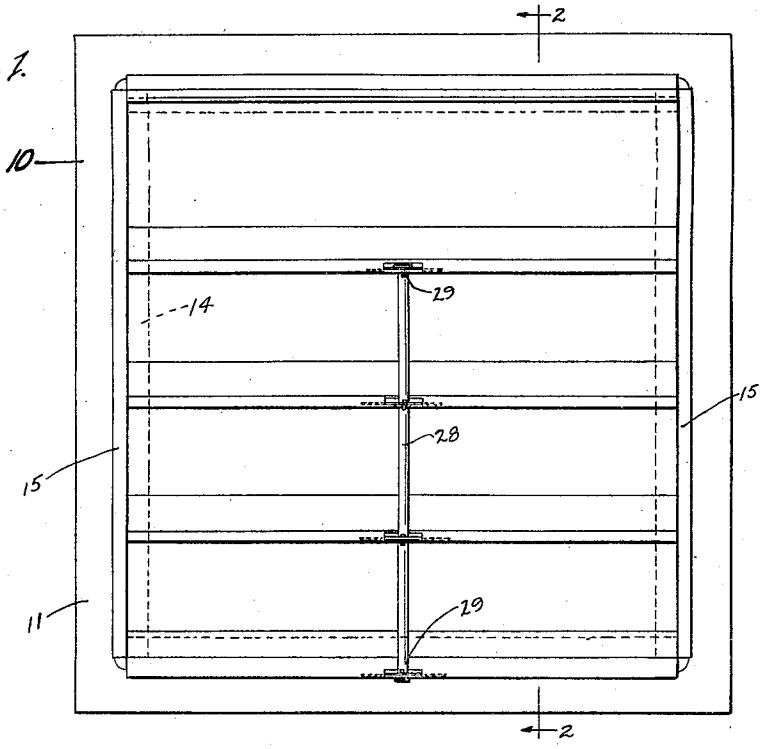


Fig. 2.

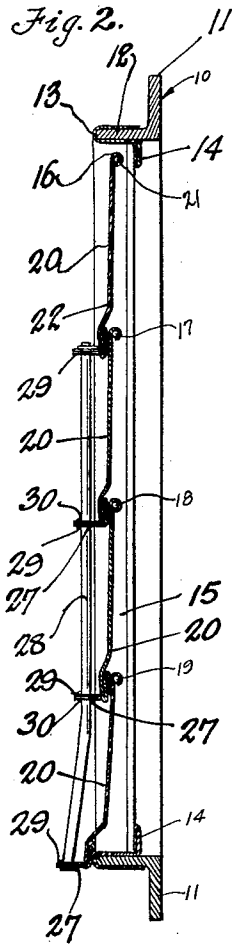


Fig. 5.

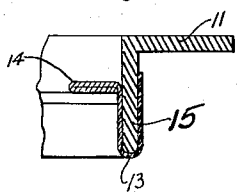


Fig. 3.

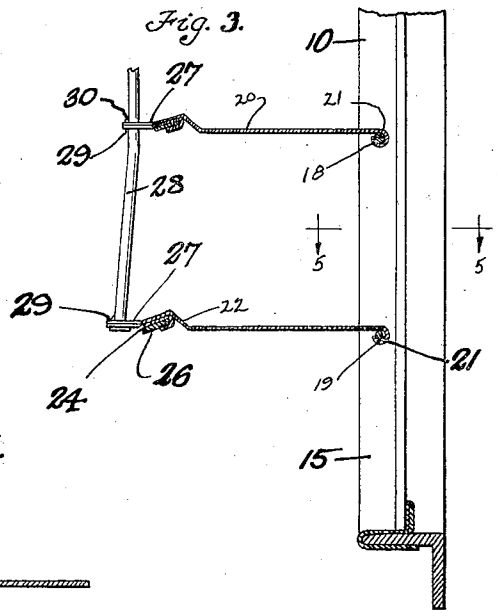
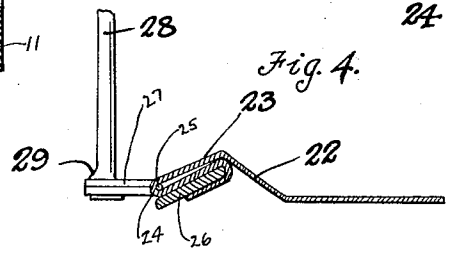


Fig. 4.



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Patented Mar. 24, 1931 1,798,041

UNITED STATES PATENT OFFICE

MARY GENEVA SISUNG, OF DETROIT, MICHIGAN

VENTILATOR

Application filed December 15, 1928. Serial No. 326,200.

This invention relates to certain novel improvements in ventilators, and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

It is among the objects of my invention to provide a ventilator of a movable louver type which will be so arranged that the openings thereof will be in proportion to the amount of air passing therethrough.

Another object of the invention is to provide a device of the above named character which will be substantially noiseless in operation.

A further object of the invention is to provide a device of the above named character which will be so constituted and made that corrosion thereof will be resisted to a great extent.

A still further object of the invention is to provide a ventilator of the movable louver type in which a plurality of louvers will be provided and arranged for simultaneous operation.

A still further object of the invention, ancillary to the foregoing, is to provide a novel means for connecting the louvers of a ventilator of the above named type.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, showing the preferred form of construction and in which;

Fig. 1 is a front elevational view of a preferred form of construction for my invention;

Fig. 2 is a vertical sectional view taken substantially on the line 2—2 on Fig. 1;

Fig. 3 is a fragmental view on an enlarged scale depicting the louvers in completely open position;

Fig. 4 is a fragmental detail view drawn to an enlarged scale depicting the connection employed in the device for connecting the louvers to the member that serves to connect said louvers for simultaneous operation; and

Fig. 5 is a sectional detail view taken substantially on the line 5—5 on Fig. 3.

In the drawing wherein I have illustrated a preferred form of construction for my device 10 indicates a frame of any approved form which in the present instance includes a flange portion 11 that is disposed in abutment with a face of a structure adjacent an opening therein through which the lip portion 12 of the frame construction 10 is extended.

In Fig. 5 it is clearly illustrated that a guard member is provided around the flanges 12. This guard member includes a substantially U-shaped portion 13, the bight portion of this U-shaped portion being disposed on the inward edge of the flanges 12. Foot portions 14 are provided on the members 13 which extend into the area enclosed by the frame 10.

The vertical flanges analogous to 12 are indicated at 15. Extended between these side members 15 are rod members 16, 17, 18, and 19. The rod member 16 is located in juxtaposition to the upwardly disposed of the flanges 12 behind the flange 14 depending from the guard member disposed around this flange 12. The rod members 17, 18, and 19 extend between the side members 15 at regular spaced apart intervals. Louvers 20 are provided which include rolled edge portions 21 that are disposed about the rod members 16, 17, 18, and 19 as clearly illustrated in Figs. 2 and 3. The portions of the louvers 20 opposite those providing the rolled edge portions 21 terminate in angularly extending portions 22 which terminate in portions 23 that extend in the direction of the main body portion of the louvers but which are disposed to lie in different planes. These edge portions of the louvers 20 are then bent back along the portions 23 toward the portion 22 to provide bight portions 24 that serve to clamp the rod members 25 in position. The outer edges of these portions are then bent back in the direction of the portions 23 to clamp suitable sound deadening pads 26 in position below the portions 23. These sound deadening pads 26 are made of any suitable material as, for example, felt.

At substantially the mid-point in the extent of the louvers 20 the bight portions 24 are cut away to expose portions of the rod members 25. Embracing the rod members 25 in these cut away portions are end portions of the connecting members 27. Other portions of these connecting members 27 extend outwardly from the louvers 20. A connecting bar 28 is provided which is extended through suitable openings in the connecting members 27. The ends of the connecting bar 28 are flattened to provide displacement of the outermost of the connecting members 27. Suitable lugs 29 are formed on, or struck from, the bar 28 on one side of the connecting members 27. Lugs 30, substantially similar to the lugs 29, are formed on, or struck from, the bar 28 on opposite sides of the connecting members 27. These lugs 29 and 30 cooperate to connect the members 27 to the bar 28. At the ends of the bar 28 the lugs 29 are supplanted by the flattened end portions thereof.

In operation, the frame 10 is so mounted that the louvers 20 will be free to move in the direction it is desired to have the air current or draught pass. Preferably the louvers 20 are made from a relatively light material as, for example, aluminum, and therefore the air tending to pass will strike the surface of the louvers 20 and move the same to permit such passage, it being apparent that all of the louvers 20 will move simultaneously since they are interconnected. It is apparent that the amount of movement imparted to the louvers 20 will be proportionate to the amount and force of the air passing through the device. It is also apparent that, when air tends to pass in the opposite direction, this air movement will close the louvers 20 and thus the device may be effectively employed as a back draught eliminator.

It is apparent that the louvers 20 are of a width greater than the distance between the rod members 16 and 17, and also greater than the distance between the rod members 17 and 18, 18 and 19, and 19 and the bight portion of the guard member 13 disposed around the lowermost of the flanges 12, and therefore portions thereof will overlap. It is also apparent that the pad members 26 are provided at this point of over-lapping of the louvers and therefore when the louvers are brought into engaging position, as when they are closed, the sound of the impact therebetween will be deadened by these pad members 26.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim is new and desire to protect by Letters Patent is:

1. In a device of the class described, a frame member, supporting members extended transversely across said frame member, louver members having portions providing pivotal connection with said supporting members and including over-lapping portions, the over-lapping portions of said louvers being bent back upon themselves to retain rod members in position, said bent back portions being cut away at substantially the mid point in the extent thereof to expose said rod members, connecting members having bight portions embracing said exposed portions of said rod members, a bar member extended through openings in said connecting members, means for connecting said connecting members to said bar member to interconnect said louvers for simultaneous movement.

2. In a device of the class described, a frame member, supporting members extended transversely across said frame member, louver members having portions providing pivotal connection with said supporting members and including over-lapping portions, the over-lapping portions of said louvers being bent back upon themselves to retain rod members in position, said bent back portions being cut away at substantially the mid point in the extent thereof to expose said rod members, connecting members having bight portions embracing said exposed portions of said rod members, a bar member extended through openings in said connecting members, means for connecting said connecting members to said bar member to interconnect said louvers for simultaneous movement, said rearwardly bent over-lapping portions including forwardly extending portions for retaining sound deadening pads on said louvers, said sound deadening members serving to deaden the sound caused by the impact of said over-lapping portions.

In testimony whereof I affix my signature.

MARY GENEVA SISUNG.