C. M. LAFQUIST & J. DAHL.

VENTILATOR.

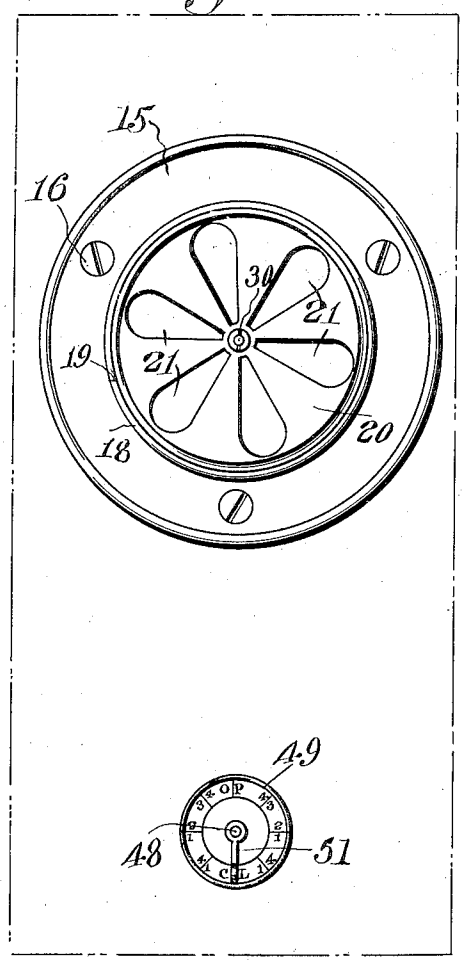
APPLICATION FILED MAR. 21, 1912.

1,070,616.

Patented Aug. 19, 1913.

2 SHEETS—SHEET 1.

Fig. 1.



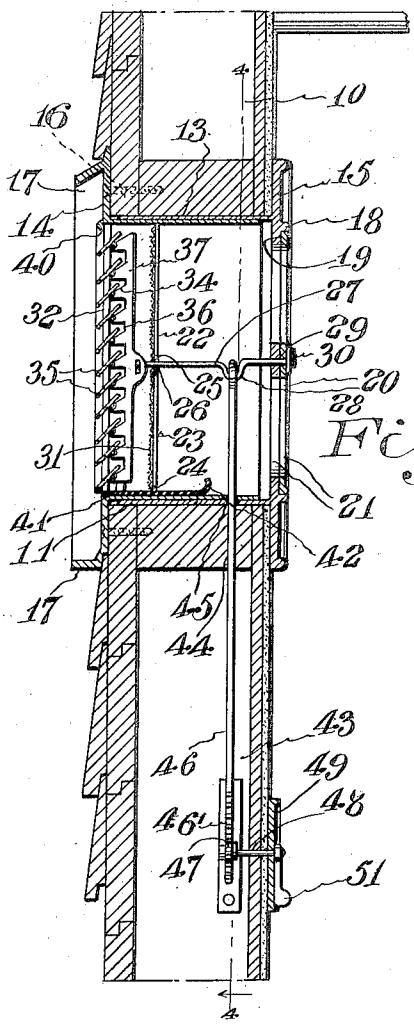
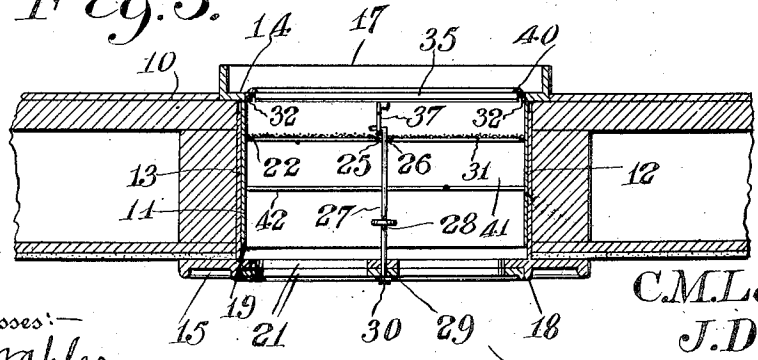


Fig. 3.

Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 2.

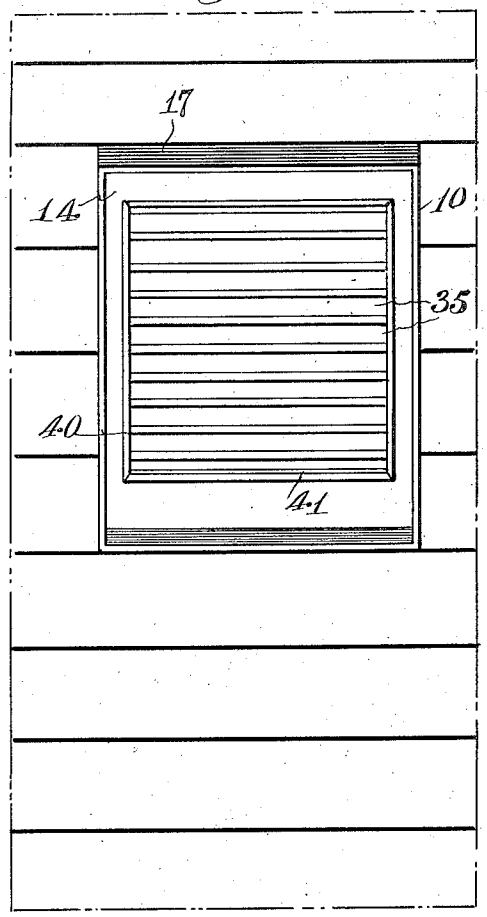


Fig. 4.

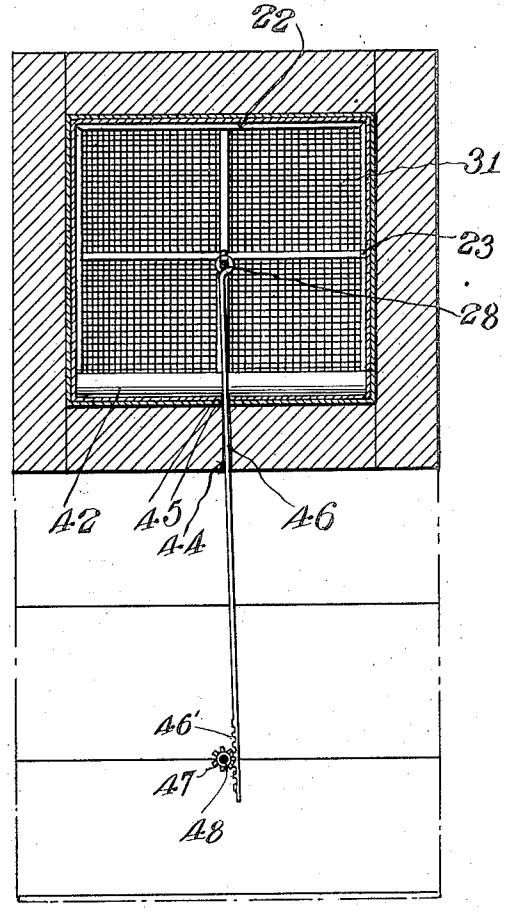
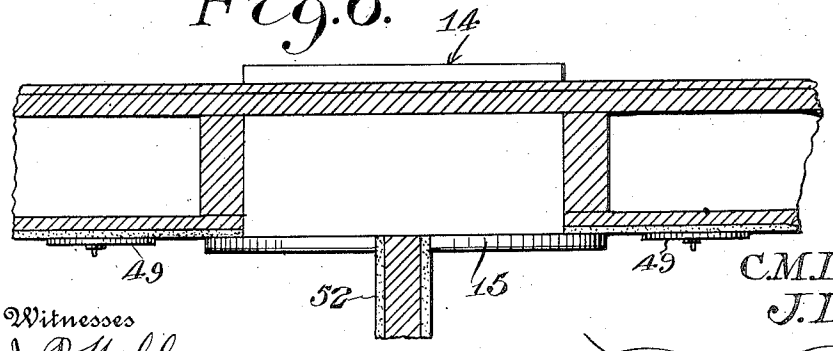


Fig. 6.



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UNITED STATES PATENT OFFICE.

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VENTILATOR.

1,070,616. Specification of Letters Patent. Patented Aug. 19, 1913.

Application filed March 21, 1912. Serial No. 685,345.

To all whom it may concern:

Be it known that we, CHARLES M. LAFQUIST and JAMES DAHL, citizens of the United States, residing at Seattle, in the county of King, State of Washington, have invented certain new and useful Improvements in Ventilators; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in ventilators.

An object of this invention is the provision of a ventilator which may be applied to a wall of any thickness.

A further object of this invention is the provision of a ventilator which will be comparatively simple and inexpensive to manufacture, reliable and efficient in use and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a front elevation illustrating our ventilator applied. Fig. 2 is a rear elevation illustrating the same applied. Fig. 3 is a central vertical sectional view taken through the ventilator shown in Fig. 1. Fig. 4 is a transverse sectional view taken on the line 4—4 of Fig. 3. Fig. 5 is a horizontal sectional view taken through the ventilator. Fig. 6 is a view illustrating a modified form of our invention in which the single ventilator is applied to two separate rooms.

Referring to the accompanying drawings by similar characters of reference throughout the several views, the numeral 10 designates generally the wall of a building of any desired construction and which is provided with a substantially rectangular shaped opening 11 leading from the exterior thereof, into one of the rooms.

A pair of inner and outer sleeves 12 and 13 are slidably located within the opening 11 for telescoping engagement with each other and have formed upon their outer ends plates 14 and 15 the former of which is attached as indicated by the numeral 16 to the outer side of the wall 10 while the latter is secured to the inner side of the wall within one of the rooms. The former or exterior plate 14 is formed in its edges with flanges 17 the upper of which slants downwardly to deflect rain or the like in bad weather. The inner of the plates or the one designated by the numeral 15 is preferably circular in formation and is formed with a concentric flange 18 producing a resultant recess 19 in which is rotatably mounted a damper plate 20. The plates 15 and 20 are formed with registering openings 21 which serve to regulate the amount of air passing into the room.

A frame 22 is secured within the inner sleeve 13 in spaced relation from its outer end and comprises a pair of spaced parallel side bars 23 connected at their opposite terminals by end bars 24 and at a point intermediate their ends by brace bars 25, at the junctures of which is formed an opening 26 in which is journaled a shaft 27 formed with a central crank 28 and having its opposite end supported within an opening 29 formed centrally of the plate 15, and its terminals keyed as indicated by the numeral 30 to the plate 20 which it rotatably supports within the recess 19 and holds against any undesired displacement. The bars 23 and 24 of the frame 22 are connected by a sheet of foraminous material designated by the numeral 31 which prevents any undesired foreign object from entering the room through the ventilator.

A pair of supporting bars 32 are secured to the opposite vertical sides of the sleeve 13 and have pivotally secured thereto a plurality of slats 35. The slats 35 are operated by a bar 37 which is formed with a plurality of forwardly extending lugs 33 beveled at their upper sides as at 34 to produce shoulders 36 which limit the tilting movement of the slats 35. The bar 37 is operated by an extension 39 formed upon the outer end of the shaft 27 at the rear of the frame 22 providing a means whereby upon the rotation of the said shaft 27 the slats will either be turned to such position as to entirely close the ventilator or permit the passage of the air therethrough. It will also be seen that the rotation of the said shaft not only operates the slats 35 but rotates the plate 20 with respect to the plate 15 so that the opening 21 will either be brought into or out of registration. When the slats 35 are in their closing position it will be observed that the ends thereof and

upper and lower edges of the terminal slats contact with the inner side of a molding strip 40 either formed integrally upon or secured to the inner edges of the plates 14 which obviously not only seals the ventilator against the admission of air but also prevents water or the like from entering in case of bad weather. In order to further insure the ventilator against the admission of water into the room, the resilient packing strip 41 is secured to the interior of the sleeve 13 for contact with the lower of the slats 35 and is off-set at its inner end as indicated by the numeral 42 serving to return the water through the outer end of the said sleeve. It should be noted that the strip 41 slants upwardly toward its inner end which causes any water entering between the slats adjacent the said strip to run out against when the said ventilator is opened and the slats are tilted to engage the shoulder 34.

A recess or pocket 43 is formed in the wall 10 and communicates within the interior of the cylinder 13 through a passage 44 which extends through the wall and through alining openings 45 formed in the sleeves 12 and 13 respectively. An operating rod 46 extends through said passage 44 and into the recess 43 and interior of the sleeve 13 at its opposite ends respectively. The upper end of the rod 46 is connected to the crank 28 of the shaft 27 while the lower end thereof has formed thereon a plurality of rack teeth 46′ for engagement with a pinion 47 mounted upon a shaft 48 which extends through the wall and into the room. The shaft 48 also extends through a plate 49 which is formed with a plurality of graduations 50 for a purpose to be later disclosed. An operating crank 51 is secured to the outer terminal of the shaft 48 providing a means whereby the said shaft 48 may be rotated which causes the rotation of the shaft 27 through the medium of the rod 46 and the various operating parts attached thereto.

By means of the graduations upon the plate 49 it will be readily seen the exact position in which the slats and registering openings 21 are located owing to the fact that the plate 49 is so graduated that when the crank 51 points to certain of said graduations, the predetermined position of the openings 21 and slats 35 is obtained.

Referring more particularly to Fig. 6 of the drawings, the room partition 52 is shown as extending vertically from the center of the plate 15 which obviously causes the registering opening 21 to be located at either side of the said partition. It should be also understood in this connection that various minor changes in the details of construction, formations, and combinations can be resorted to within the scope of the appended claim without departing from or sacrificing any of the advantages of the invention.

From the foregoing disclosures taken in connection with the accompanying drawings it will be manifest that a ventilator of the nature described is provided for which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention what we claim as new and desire to protect by Letters Patent, is:

The combination in a ventilator of a pair of extensible members, slats pivoted within one of said members, said slats upon movement in one direction adapted to close the ventilator and upon movement in an opposite direction adapted to open said ventilator, a strip attached to the lower side of one extensible member and off-set upwardly at its inner end to produce a flange, and said strip adapted to engage one of the slats when the slats are moved to their closing position and means for moving said slats.

In testimony whereof, we affix our signatures in presence of two witnesses.

CHARLES M. LAFQUIST.
JAMES DAHL.

Witnesses:
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LOUIS O'MEARA.