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ROOF VENTILATOR

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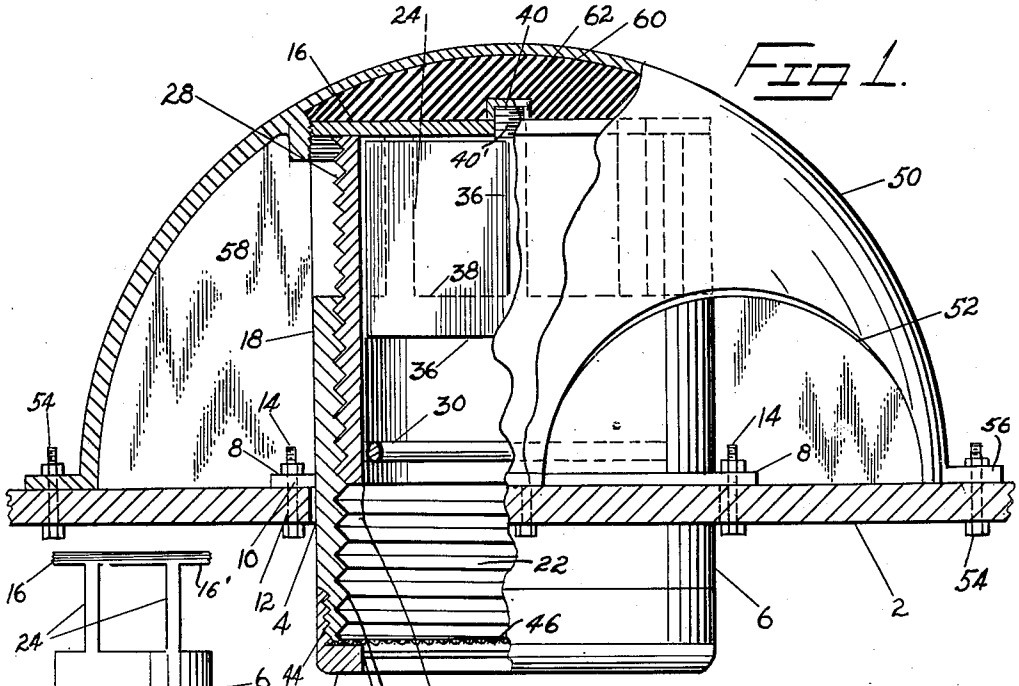


Fig 1.

Fig 2.

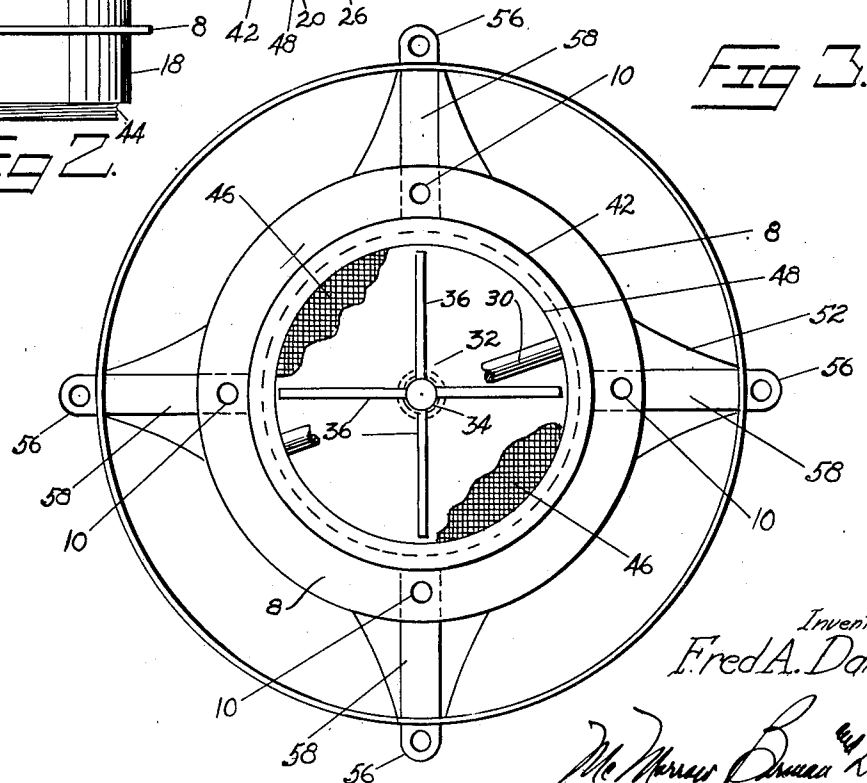


Fig 3.

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ROOF VENTILATOR

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3 Claims. (Cl. 98—13)

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This invention relates to roof ventilators.

An object of the invention is to provide a ventilator of this character, for houses, enclosures, boats, trailers and the like, which is efficient in operation and simple and inexpensive to construct.

Another object of the invention is to provide a ventilator which is rain proof, spray proof and burglar proof.

A further object of the invention is to provide a ventilator which is adjustable from within the vehicle to vary the amount of air drawn through the ventilator, and which has vanes for guiding the air drawn in.

Still another object of the invention is to provide a ventilator which will operate effectively regardless of the direction of the wind, and in which half of the ventilator will always be working.

Other objects and advantages of the invention will become apparent from the following description of a preferred embodiment thereof as illustrated in the accompanying drawings and in which,

Figure 1 is a partly sectioned side elevation of my improved ventilator;

Figure 2 is a bottom plan view of the ventilator shown in Figure 1, it being removed from a supporting area, such as a roof. Figure 3 is a side elevation in part of the cylinder housing.

Referring to the drawings, it will be seen that 2 is the roof of a conveyance such as a boat or trailer. An aperture 4 is formed in the roof 2, through which extends the cylinder housing 6 which has a flange 8 having holes 10 in registry with holes 12 in the margin of aperture 4 in the roof through which extend bolts 14 for securing the flange 8 and hence the cylinder housing 6 to the roof 2.

The cylinder housing 6 has a top plate 16 and side walls 18 threaded on their inner surface 20, thus forming a cylindrical chamber 22. Rectangular openings 24 are cut out of the upper portions of the side walls 18 as best seen in Figure 3, the openings 24 thus forming air intake apertures. A hollow cylindrical valve member or pipe 26 having outside threads 28, is threaded into the cylindrical chamber 22 as shown in Figure 1. The pipe 26 is provided with a transverse handle 30 near its lower end by which the pipe may be rotated about its vertical axis to move it up or down, so that as the pipe 26 is moved to its uppermost position shown in Figure 1 at which point it is up against the top plate 16 of the cylinder housing, the air intake apertures 24 are completely covered and no air can pass through the apertures. The valve member 26 is thus adjustable downward until the air intake apertures 24 are completely opened, or upward until they are completely closed.

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A control vane assembly 32 comprising a vertical rod 34 with four vanes 36 radiating therefrom, the radial dimensions of the vane assembly being such that it fits snugly inside the valve member 26, and the vanes being long enough to extend downward from the dome 16 to below the lower edge 38 of the apertures 24. The rod 34 extends upwardly through the valve member 26 and has its upper end secured in a recess 40 provided in the plate 16 at the center of the latter and is securely held in this recess by screw threads 40' or other suitable means to suspendingly support the vane assembly 32 below the plate 16. The control vanes 36 stop the wind, and force the air down through the cylinder housing chamber 22.

A cylinder housing cap 42 is threaded onto the lower end 44 of the housing 6, and has a wire mesh screen 46, secured in its central aperture 48. A hollow hemispherical dome housing 50, provided with four air inlet apertures 52 serves to cover the rest of the structure, the housing 50 being fastened to the roof 2 by means of screws or bolts 54 extending through holes in flanges 56. Inside the housing 50 are four stationary vanes or legs 58 which fit close to the cylinder housing 6, making four air passageways for the wind to blow into the cylinder housing. Thus the air flows down through the cylinder housing from whatever direction the wind may be blowing, and hence half the ventilator is always operating to conduct air. The space 60 between the inner surface of the housing 50 and the top of the cylinder housing, is filled with packing 62 of any suitable material such as rubber.

The dome housing 50 has a screw threaded interior connection with the top plate 16 peripherally of the latter, as best seen in Figure 1 of the drawing, the threads 16' of the top plate 16 being shown in Figure 2 of said drawing.

I claim:

1. A ventilator assembly for vehicles comprising a hollow, cylindrical housing having a closed end and an open end and angularly spaced apart air passage openings adjacent said closed end, said housing being mountable in an aperture in a vehicle roof with said closed end and said openings at the outer side and said open end at the inner side of the roof, internal screw threads in said housing, an externally screw threaded control sleeve threaded into said housing and movable longitudinally thereof to variably restrict said air passage openings, a dome shaped cover

overlying the closed end of said housing and having angularly spaced apart air passage openings therein, and vanes in said cover extending between said housing and said cover and respectively disposed between adjacent air passage openings in said housing and corresponding adjacent air passage openings in said cover, said vanes being disposed substantially in planes including the longitudinal center line of said housing to direct air from the air passage openings in said cover through corresponding air passage openings in said housing.

2. A ventilator assembly for vehicles comprising a hollow, cylindrical housing having a closed end and an open end and angularly spaced apart air passage openings adjacent said closed end, said housing being mountable in an aperture in a vehicle roof with said closed end and said openings at the outer side and said open end at the inner side of the roof, internal screw threads in said housing, an externally screw threaded control sleeve threaded into said housing and movable longitudinally thereof to variably restrict said air passage openings, a dome shaped cover overlying the closed end of said housing and having angularly spaced apart air passage openings therein, vanes in said cover extending between said housing and said cover and respectively disposed between adjacent air passage openings in said housing and corresponding adjacent air passage openings in said cover, said vanes being disposed substantially in planes including the longitudinal center line of said housing to direct air from the air passage openings in said cover through corresponding air passage openings in said housing, external screw threads on said housing at the open end thereof, and an internally flanged stop ring threaded onto said housing and engageable with said sleeve to preclude movement of said sleeve out of the open end of said housing.

3. A ventilator assembly for vehicles comprising a hollow, cylindrical housing having a closed end and an open end and angularly spaced apart

air passage openings adjacent said closed end, said housing being mountable in an aperture in a vehicle roof with said closed end and said openings at the outer side and said open end at the inner side of the roof, internal screw threads in said housing, an externally screw threaded control sleeve threaded into said housing and movable longitudinally thereof to variably restrict said air passage openings, a dome shaped cover overlying the closed end of said housing and having angularly spaced apart air passage openings therein, vanes in said cover extending between said housing and said cover and respectively disposed between adjacent air passage openings in said housing and corresponding adjacent air passage openings in said cover, said vanes being disposed substantially in planes including the longitudinal center line of said housing to direct air from the air passage openings in said cover through corresponding air passage openings in said housing, and a handle extending diametrically of said sleeve for manual rotation of said sleeve to screw the latter longitudinally of said housing.

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