(No Model.)

B. M. TURNBULL.

VENTILATOR.

No. 426,883. Patented Apr. 29, 1890.

Fig. 1.

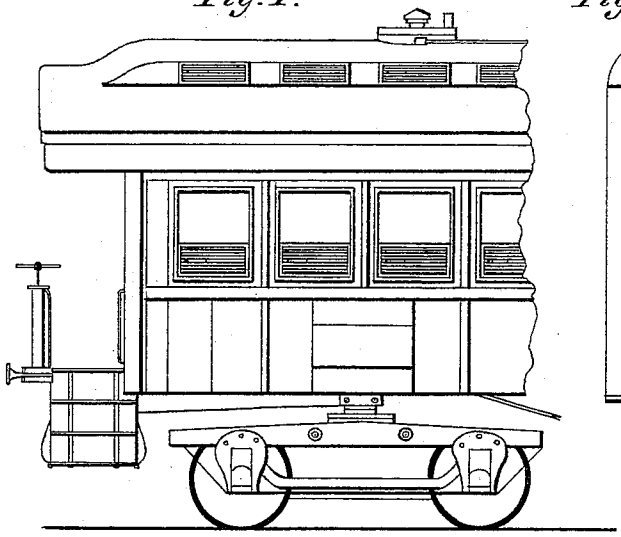


Fig. 2.

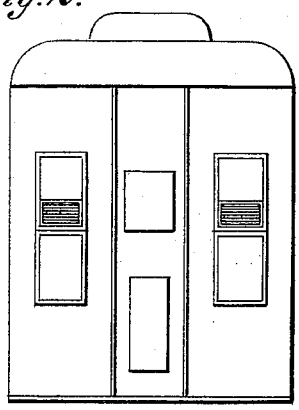


Fig. 3.



Fig. 4.

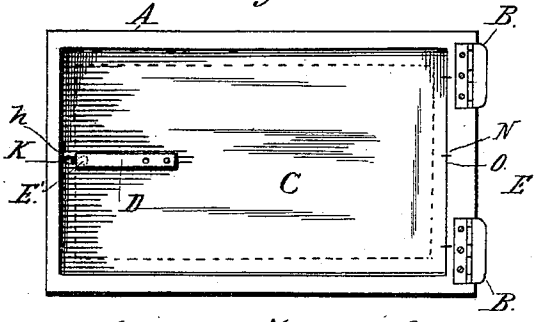


Fig. 5.

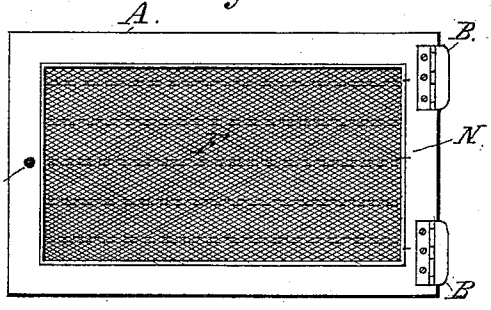


Fig. 6.

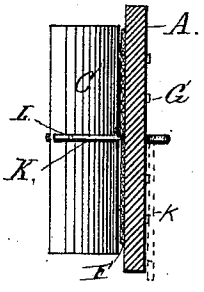


Fig. 7.

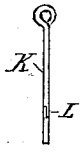


Fig. 8.

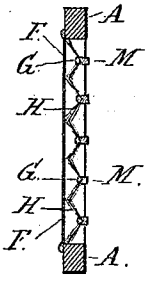


Fig. 9.

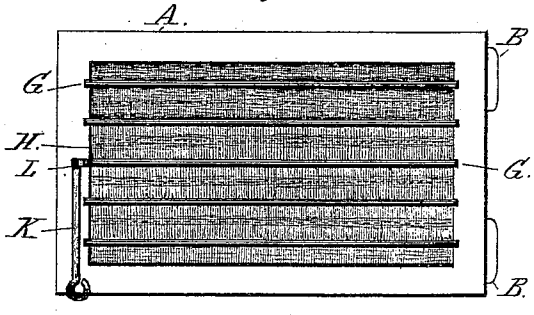
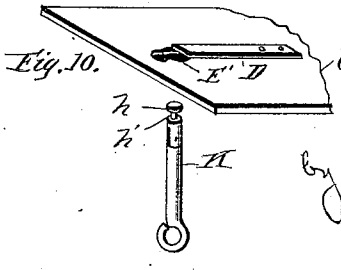


Fig. 10.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BRISBANE M. TURNBULL, OF EAST PASCAGOULA, MISSISSIPPI.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 426,883, dated April 29, 1890.

Application filed January 18, 1890. Serial No. 337,332. (No model.)

To all whom it may concern:

Be it known that I, BRISBANE MARSHALL TURNBULL, a citizen of the United States, residing at East Pascagoula, in the county of Jackson and State of Mississippi, have invented certain new and useful Improvements in Ventilators; and I do 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.

My invention relates to an improvement in ventilators in which hair or bristles are made to operate in conjunction with screens; and the objects of my invention are to provide a device that will prevent dust, cinders, and smoke from entering a railway-car.

The invention claimed herein is an improvement upon a ventilator for which Letters Patent were issued to me on the 20th day of August 1889, No. 409,525.

Referring to the annexed drawings, Figure 1 is a side view of a car, showing ventilator in position. Fig. 2 is an end view of a car, showing ventilator in position. Fig. 3 is a sectional end view of lags holding bristles in position. Fig. 4 is a plan view of ventilator with metal plate in position. Fig. 5 is a similar view of ventilator, showing wire screen in position with metal plate detached. Fig. 6 is an end view of ventilator with one end of metal plate open. Fig. 7 is a side view of bolt, showing pivot in same. Fig. 8 is a cross-section showing position of bristles, lags, and wire screen. Fig. 9 is a plan view of ventilator as seen from interior of car, and Fig. 10 is a perspective view of a portion of the plate upon the outside of the screen and of the rod for operating it detached.

Similar letters refer to similar parts throughout the several views.

In constructing my ventilator I use a rectangular frame A, of a size that may be readily adjusted under the sash of a car-window. On said frame A, I place hinge-plates B, which are constructed of ordinary sheet-brass with sufficient tension to yield to pressure when introduced in the groove of a car-window.

C is a plate, preferably of sheet metal, which is so constructed that it may be readily adjusted and removed from the frame A by means of curved hooks N, which pass through openings O.

D is a spring.

E is an opening in frame A, through which bolt K works back and forth when it is desired to extend one end of the plate C from ventilator for admitting air, as shown in Fig. 6. The end of the bolt or rod K is provided with a groove or channel h', which forms a head h on the end which is passed up through a hole E′ in the plate C, and then stepped forward into a reduced portion of the hole. This prevents the head from being withdrawn, while the free end of the spring D slips down behind the head and keeps it from slipping back into the larger portion of the hole, the other end of the spring being secured to the plate C.

L is a pivot or hinge in bolt K, and which enables the plate C to be held in a closed position when the bolt is drawn, as seen in Fig. 9 and in dotted lines in Fig. 6.

F is a wire screen rigidly secured to frame A, and upon which plate C rests when in a closed position, as shown in Fig. 4.

H represents hair or bristles laid in a V-shaped groove in the lag M. Upon said hair or bristles is adjusted a strip G, which holds hair or bristles in a secure position, and when the hair or bristles are thus laid the ends of the hair form a connection, as shown in Figs. 8 and 9, so as to exclude the dust, cinders, and smoke, but admit the air. The foregoing description shows the construction where my ventilator is used upon a railway-car.

The mode of operation is as follows: Raise the window-sash of a car to the position shown in Fig. 1 and place the ventilator under the sash. When the ventilator has been thus placed in position and it is desired to admit fresh air, simply push out the plate C by means of rod K, in the manner shown in Fig 6, and a draft is at once created, and the air passes through the screen F, and thence through the hair or bristles H, all dust, cinders, and smoke being obstructed in their passage to the interior of the car by means of the hair, and the pure air flows into the car and the passenger is enabled to sit in his seat or sleep in the car without suffering from the inconvenience of dust, cinders, or smoke. Any por-

tion of a car where air is admitted may have my ventilator placed in said opening, and all dust, cinders, and smoke will be excluded, and all openings in dwellings, buildings, and vehicles where it is desirable to exclude the dust can be made dust-proof by the use of my hair or bristle ventilator.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a ventilator, the combination, with a frame, of a screen within the same, a plate outside of the screen pivotally secured at one end to the frame, and a jointed rod passed through a hole in the frame and secured to the free end of the plate, the joint of the rod being at such a point that when the plate is closed the main portion of the rod will hang down against the side of the frame and lock the plate against outward movement until the rod has been raised, substantially as described.

2. The combination, with a ventilator, of a plate removably hinged thereto at one end and having a hole in its free end having a contracted portion, a pivoted operating rod or handle passing through the ventilator and having a groove or channel to fit in the contracted portion of the hole in the plate, and a spring secured to the plate at one end and having its free end abutting against the end of the rod to keep it in the contracted portion of the hole in the plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BRISBANE M. TURNBULL.

Witnesses:
MARTIN TURNBULL,
PERCY D. PARKS.