

907,255.

S. N. LILES.
CAR VENTILATOR.
APPLICATION FILED JULY 15, 1908.

Patented Dec. 22, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

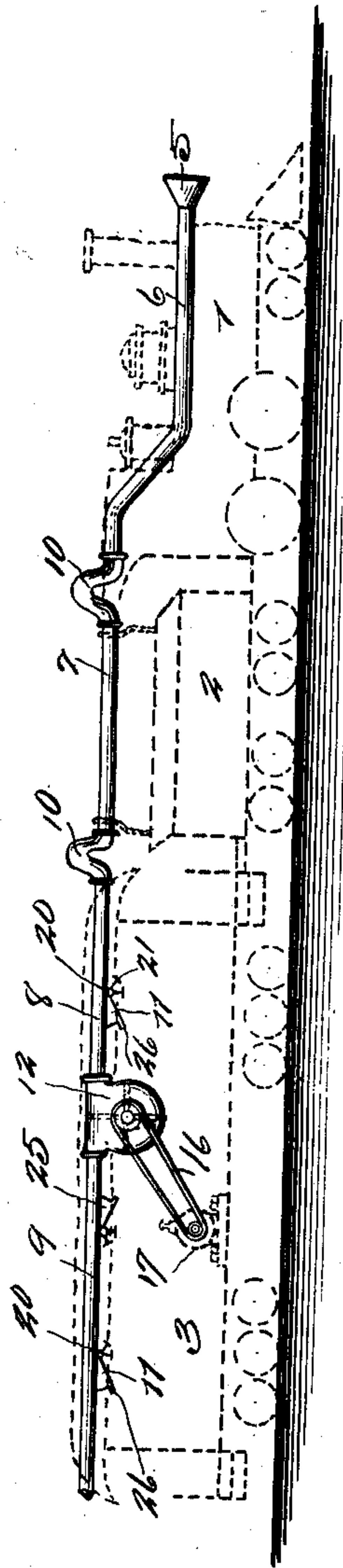
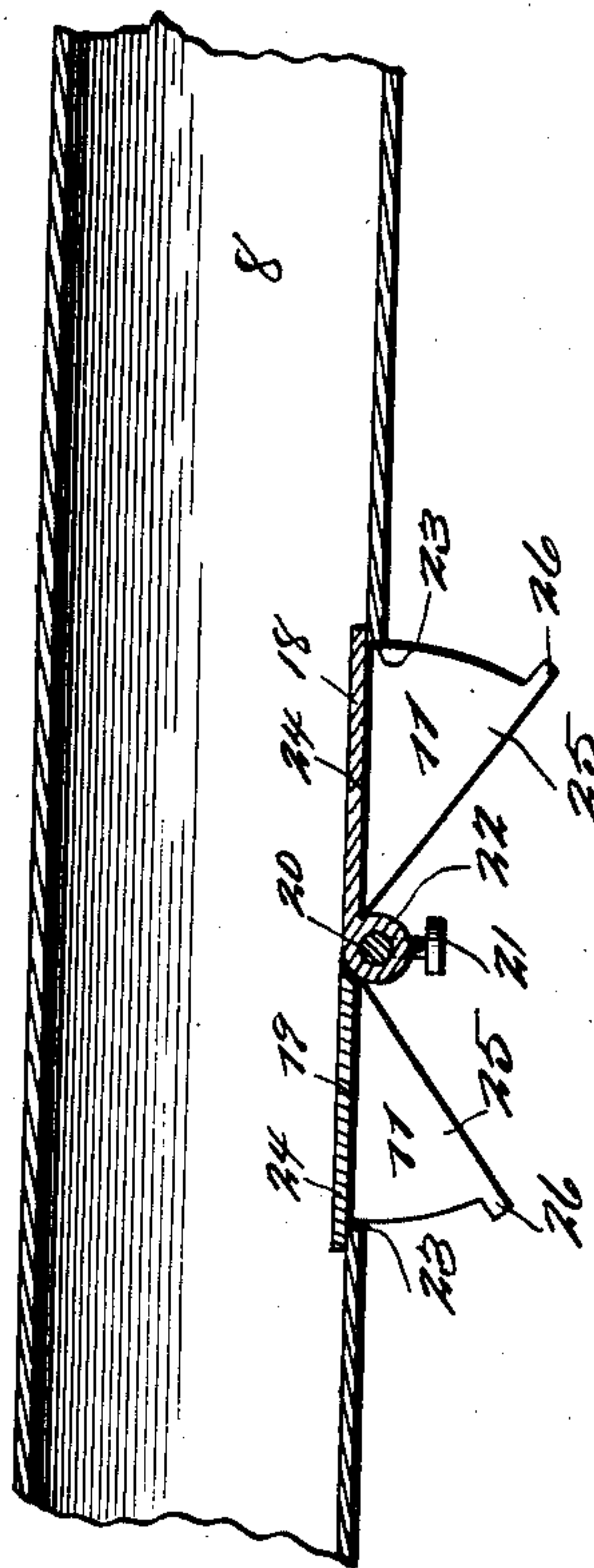


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

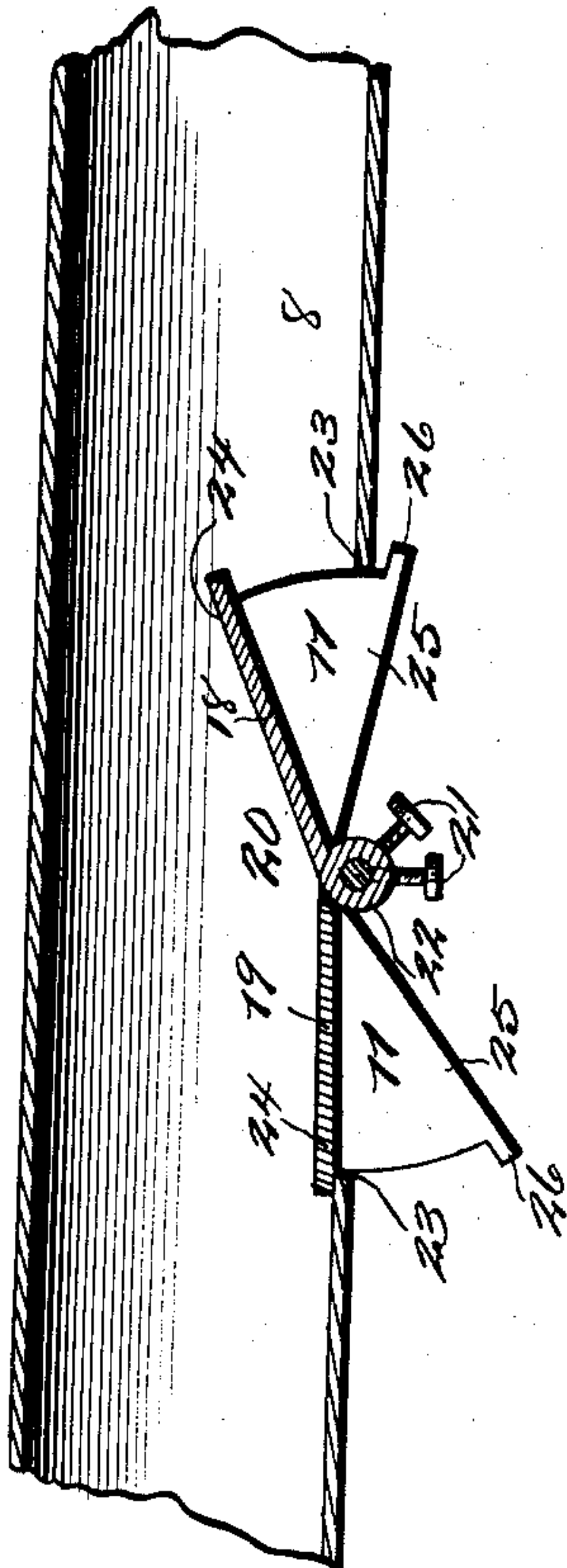
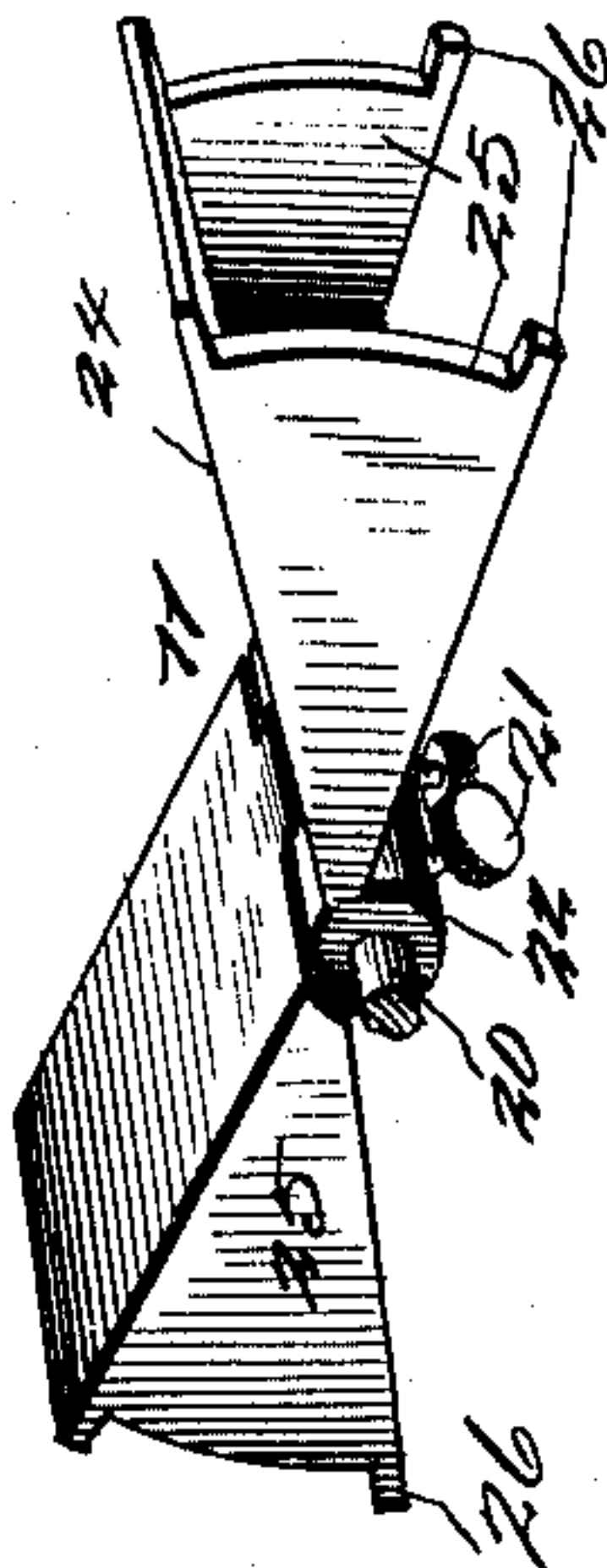


Fig. 4.



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UNITED STATES PATENT OFFICE.

SILVESTER NEWTON LILES, OF JONESBORO, NORTH CAROLINA.

CAR-VENTILATOR.

No. 907,255.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed July 15, 1908. Serial No. 443,667.

To all whom it may concern:

Be it known that I, SILVESTER N. LILES, a citizen of the United States, residing at Jonesboro, in the county of Moore and State of North Carolina, have invented a new and useful Car-Ventilator; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable other skilled in the art to which it appertains to make and use the same.

The invention about to be set forth pertains to a new and useful ventilator for railway trains, and the invention in its fundamental characteristics has for its primary object to provide flexible connections between the various cars of a train, and means when manipulated to allow more or less ventilation, and when manipulated to allow the intake of air, that is, at the forward end of a car, a similar device or means may be manipulated, so that the draft within the ventilator pipe will cause a vacuum in the rear end of the car, that is, will draw the foul air therefrom.

The invention creates as a further object to provide such means for controlling the ventilation of cars, constructed in such wise as to allow the entire ventilation of the train of cars to be cut off, as will be clearly apparent from the drawings, taken in connection with the hereinafter set forth description.

This invention comprises further objects and combinations of elements, which will be hereinafter more fully described, shown in the accompanying drawings, and the novel features thereof will be pointed out by the appended claim.

The features, elements and the arrangement thereof, which constitute the above entitled invention, may be changed and varied, that is to say, in an actual reduction to practice, with the understanding that the changes and variations accruing from said reduction to practice are limited to the scope of the appended claim.

To obtain a full and correct understanding of the details of construction, combinations of features, elements and advantages, reference is to be had to the hereinafter set forth description and the accompanying drawings in connection therewith, wherein

Figure 1 is an elevation of the forward portion of a railway train, showing the same in dotted lines, showing the invention applied

thereto in full lines, and also illustrating an exhaust or vacuum fan, which may be operated by a motor, or by the wheels of the car, as shown in dotted lines. Fig. 2 is a sectional view through a portion of the ventilator pipe, showing the means for controlling the ventilation of the various cars, and illustrating the said means in a closed position. Fig. 3 is a similar view to that shown in Fig. 2, illustrating a portion of the said means controlling the ventilation of the cars open, so as to cause the intake of air. Fig. 4 is a perspective view of the means for controlling the ventilation of the cars detached from the ventilator pipe.

In regard to the drawings, wherein similar reference characters indicate corresponding parts in the several illustrations, by figures, 1 and 2 designate the locomotive and tender, while 3 and 4 designate two cars of a railway train, which are equipped with a ventilator pipe extending through the cars and having its forward flaring end 5 positioned forward of the smokestack of the locomotive, as seen clearly in Fig. 1 of the drawings. This ventilator pipe comprises various sections 6, 7, 8 and 9, which are connected together by flexible connections 10, which may be of any desired well-known construction, and which sections are provided with means or pivoted valve sections 11 for controlling the ventilation to the various cars, as is evident.

The baggage car 3, in its upper portion, is provided with an exhaust, vacuum or suction fan 12, the purpose of which is to assist in supplying a greater amount of air to the various cars, by causing a vacuum at the flaring end of the ventilator pipe, as will be well understood. This exhaust or suction fan may be driven by belt connection 16, with an electric motor 17, as shown in Fig. 1.

The means for controlling the ventilation of the cars comprises pivoted valve sections 18 and 19 which are pivotally mounted upon shafts 20, their adjustability being controlled by the thumb or set screws 21, which extend through sleeve portions 22 of the said pivoted valve sections, and are designed to engage said shafts, as is apparent. These pivoted valve sections oscillate within openings 23 of the ventilator pipe, and are designed for the purpose of closing or partially closing said openings, as seen clearly in Figs. 2 and 3 of the drawings. These pivoted valve sec-

tions are triangular in side elevation, and are formed with body portions 24 and side portions or flanges 25, as seen clearly in Fig. 4 of the drawings. These side portions or flanges 5 25 extend into the said openings, and are provided with lugs or stops 26, to engage the sides or peripheries of said openings, so as to limit the upward movement of the said pivoted valve sections, as will be clearly manifested. 10

It will be seen, upon an examination of the drawings, that the various pivoted valve sections may be set in various positions, that is to say, one of the pivoted valve sections may 15 be so disposed, as seen in Fig. 3, so as to cause the intake of air, the adjacent pivoted valve section being closed, while the pivoted valve section corresponding to the closed pivoted valve section just above set forth is disposed in such a manner as to cause a vacuum 20 within the car, so that the foul or impure air will be drawn therefrom, its adjacent pivoted valve section being closed. This disposition of the various valve sections, 25 as above set forth, is clearly illustrated in Fig. 1 of the drawings.

From the foregoing, the essential features, elements and the operation of the device, together with the simplicity thereof, will be 30 clearly apparent.

Having thus fully described the invention,

what is claimed as new and useful, by the protection of Letters Patent, is:—

In a device as set forth, a ventilator pipe comprising various flexible coupled sections, 35 having openings therein, shafts extending transverse of said openings, pivoted valve sections having sleeves inter-positioned with relation to one another and surrounding said shafts, means for holding the sleeves and the 40 valve sections in adjusted positions, said valve sections designed to oscillate within the openings for controlling the ventilation of cars, said valve sections being U shaped in end view and triangular in side view, so that 45 when the direct draft within the ventilator pipe is deflected none will escape by the sides of the valve sections, said valve sections being provided with integral projections to limit the upward and downward 50 movement of the said sections, said integral projections being designed to contact with the periphery of the openings in the ventilator pipes.

In testimony whereof I have signed my 55 name to this specification in the presence of two subscribing witnesses.

SILVESTER NEWTON LILES.

Witnesses:

S. H. BUCHANAN,
B. F. GODFREY.