

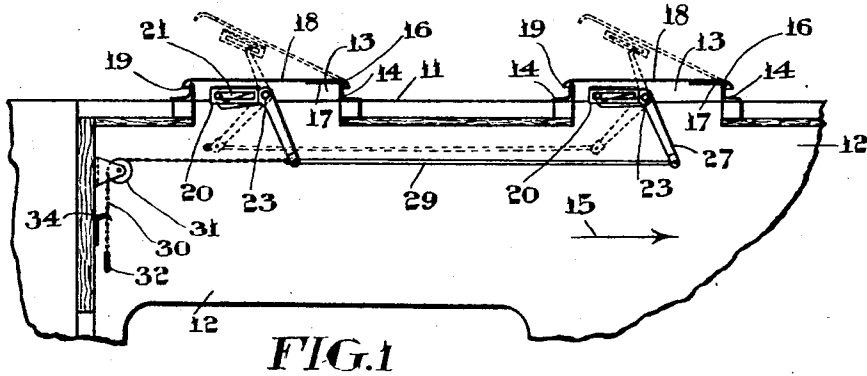
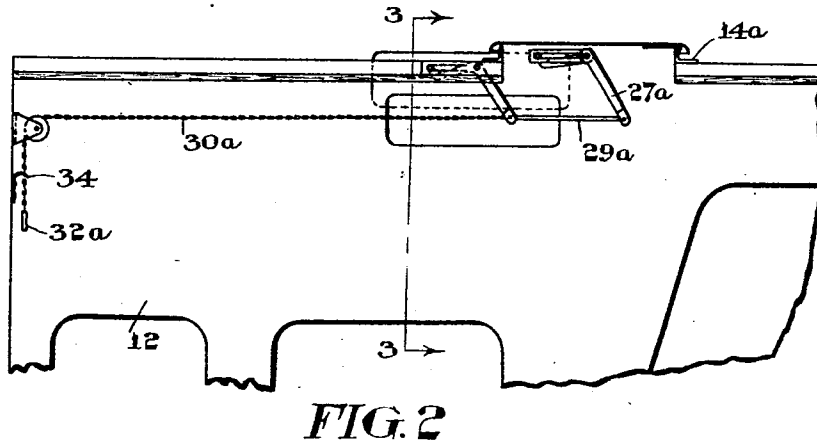
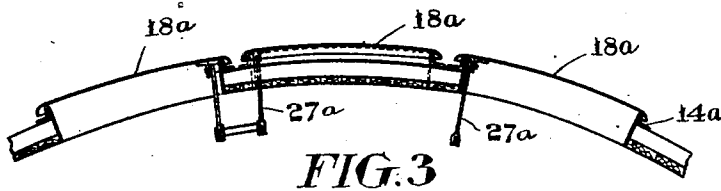
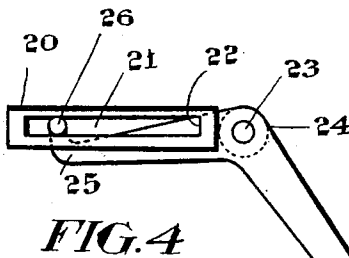
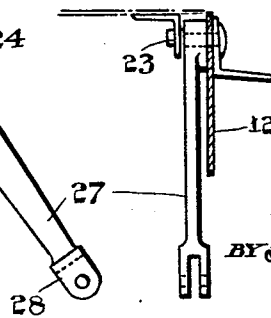
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E. J. WILHELM

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LOCOMOTIVE CAB VENTILATOR

Filed Aug. 12, 1926



INVENTOR
EDWIN J. WILHELM

BY *Fetherstonhaugh & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWIN J. WILHELM, OF STRATFORD, ONTARIO, CANADA.

LOCOMOTIVE-CAB VENTILATOR.

Application filed August 12, 1926. Serial No. 128,830.

This invention relates to new and useful improvements in locomotive cabs and particularly to the ventilating means therefor, and the object of the invention is to provide a simple and efficient ventilating system which may be controlled by the locomotive operators from their respective working positions in the cab.

Another object is to provide a locomotive cab ventilating system which may be held at any desired degree of opening between its maximum open and closed positions.

In my invention I provide ventilators hinged along one edge to the cab roof of a locomotive. The ventilators may be arranged in alignment or they may be mounted in staggered form. Secured to the underside of each ventilator is an angle having a slot formed in its vertical leg adapted to be engaged by a projection attached to one end of a bell crank lever pivotally mounted on a pin secured to the fixed cab structure. The other ends of the bell crank levers may be connected together by means of rods so that the ventilators may work in unison and be controlled by the locomotive operators from their driving positions.

In the drawings which illustrate my invention in its simplest forms;

Figure 1 is a part sectional side elevation of a locomotive cab showing two ventilators mounted in alignment in the longitudinal direction of the locomotive.

Figure 2 is a part sectional side elevation of a locomotive cab equipped with a modified arrangement of ventilators.

Figure 3 is a sectional end elevation of part of the cab shown in Figure 2 taken on the line 3-3.

Figure 4 is a side elevation of one of the ventilator operating levers and its connection to the ventilator.

Figure 5 is an end elevation of the device shown in Figure 4.

Referring more particularly to the drawings, and particularly to Figure 1, 11 designates the roof of a locomotive cab 12, said roof being provided with apertures 13 formed therein, and bounded by upwardly turned angle irons or beading 14. The apertures shown in Figure 1 are in alignment with one another and with the longitudinal centre of the locomotive. The direction of travel of the locomotive is shown by the arrow 15. Attached to one edge 16 of each of the angles bounding the apertures, by means of the hinges 17, are

the ventilator covers 18, the outer edges 19 of which extend beyond the upper edges of the angle edges and are turned downwardly to provide protection against the entry of rain or the like into the cab. It will be seen that the ventilators open in such a manner that they slope towards the front of the locomotive, shown in dotted lines in Figure 1. Secured to the underside of each of the ventilators by any suitable means, is the angle iron 20, shown in detail in Figures 4 and 5, each angle being provided with a slot 21 closed at both ends, end 22 acting as a stop to limit the opening movement of the ventilators. Pivotaly attached to fixed portions of the cab by means of the pins 23 are the bell crank levers 24, the arms of each of which are positioned substantially at an angle of 120° to one another. The arms 25 have formed integral therewith, projections 26 adapted to slide in the slots 21 on movement of the levers 24, said projections being preferably positioned at the end remote from the pivot. The arms 27 are provided at their ends with a bifurcated portion 28 so that they may be connected together by means of the connecting rods 29 and to the operating chain 30 which passes over a rotatably mounted pulley 31, and is provided with a handle 32 located in proximity to the locomotive driver's working position. In Figures 2 and 3 a slight modification is shown in the arrangement of the ventilators, one being positioned on each side of the longitudinal centre of the cab while the third ventilator is positioned at the centre of the cab. The parts similar to those shown in Figure 1 are designated with like numerals. In Figure 3 it will be seen that two of the ventilators are connected together by means of the rod 29^a and are operated by a common chain 30^a and handle 32^a, while the other ventilator is operated by a chain and handle of a similar type but positioned on the opposite side of the cab from the handle 32^a, so that the pair of connected ventilators may be operated by the locomotive driver while the other may be operated by his assistant or fireman. Fixed hooks 34 may be provided to engage with the chain to hold the ventilators at any desired degree of opening.

Modifications may be made to the general construction of the device without departing from the spirit of the invention.

In operation the ventilators are opened by pulling on the handle which through the

chain swings the levers about their pivots and causes the projections to exert an opening or raising action on the ventilators.

It will be seen that the device is very simple in construction and operation, and provides a means for thoroughly ventilating a locomotive cab from the working stance of the operators. The ventilators are held open by means of the hooks which may pass through or engage with the links of the chain.

Having thus described my invention, what I claim is:—

A locomotive cab provided with a ventilating opening formed in the roof of the cab and bounded by upwardly projecting marginal flanges, a cover hinged to the forward flange of the opening and made somewhat larger than said opening so that, in closed position, the edges of the cover extend beyond the flanges of the opening, said edges being directed downwardly to prevent the entrance of rain or the like between the cover and the

upper edges of said flanges, an angle strip disposed to extend at right angles to the hinge of the cover and positioned close to one of the side flanges of the ventilating opening, said angle strip presenting a horizontal flange secured to the lower surface of the cover and a vertical flange having a longitudinally extending slot formed therein, a bell crank lever pivoted to the last mentioned flange of the ventilating opening with one arm of the lever extending downwardly only a short distance below the ceiling surface of the cab, the other arm of the lever being formed with an integral laterally projecting terminal operating in the slot of the angle strip and means for imparting swinging movement to the downwardly extending arm of said lever.

In witness whereof, I have hereunto set my hand.

EDWIN J. WILHELM.