April 14, 1931. C. M. HORSMAN 1,801,199

WINDOW INCLOSURE FOR LOCOMOTIVE CABS AND THE LIKE

Filed Oct. 4, 1929

Fig. 1

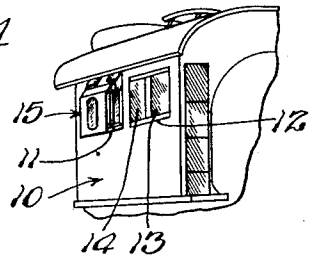


Fig. 2

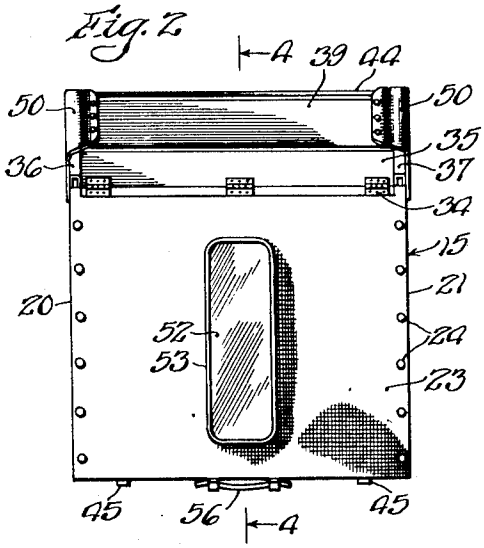


Fig. 3

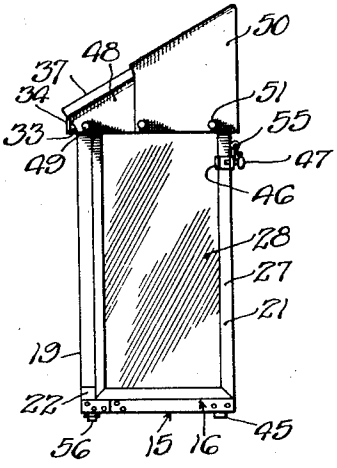


Fig. 4

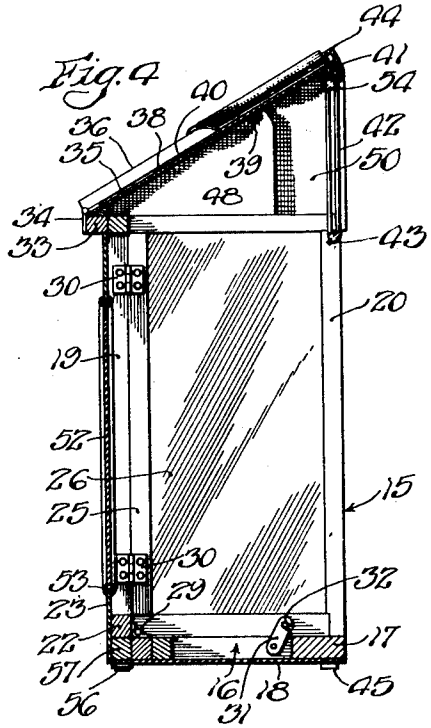
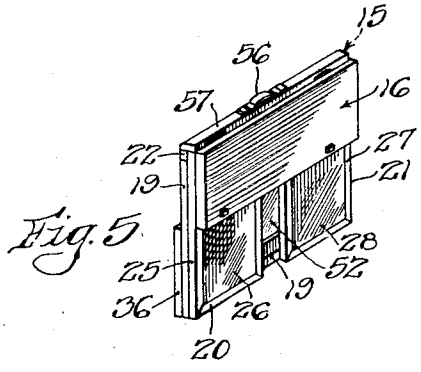


Fig. 5



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UNITED STATES PATENT OFFICE

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WINDOW INCLOSURE FOR LOCOMOTIVE CABS AND THE LIKE

Application filed October 4, 1929. Serial No. 397,273.

This invention relates to certain novel improvements in window inclosures for locomotive cabs and the like and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

It is among the objects of my invention to provide an arrangement which may be mounted in the window of a cab of a locomotive or the like which will project from the side of the cab and which will have openings therein inclosed by suitable transparent plates in order that the engineer or fireman may position his head in the device and have clear vision of the track and signals and still be protected.

Another object of the invention is to provide a device of the above described character which will afford ample protection and yet which will afford vision in all required directions.

A further object of the invention is to provide a device of the above described character which will be collapsible so as to facilitate the transportation thereof.

A still further object of the invention is to provide a device of the above described character which will be arranged in a manner which will permit expeditious mounting or demounting thereof when required.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, showing the preferred form of construction and in which:

Fig. 1 is a perspective view depicting a preferred form of construction for my invention in operative position;

Fig. 2 is a side elevational view of my improved device;

Fig. 3 is an end view looking in at the right hand end of the device as illustrated in Fig. 2;

Fig. 4 is a sectional view taken substantially on the line 4—4 on Fig. 2; and

Fig. 5 is a perspective view depicting the device in collapsed condition ready for transportation.

In the accompanying drawing wherein I have illustrated the preferred form of construction for my invention, 10 generically indicates the cab of a locomotive which has window openings 11 and 12 which are closed by suitable sliding windows such as 13 and 14. My improved device which is generically indicated by 15 is intended to be associated with the window opening with which the window 14 is associated. The device 15 is intended to be arranged in the opening 11 and is retained in position by being suitably clamped therein and supplants the window 14 which is slid forwardly in the manner well understood in the art.

My improved device includes a lower wall 16 which comprises a frame 17 and the area inclosed by the frame 17 is covered by a plate 18 of suitable material. The device also includes a side wall generically indicated by 19 and end walls 20 and 21.

The side wall 19 comprises a frame 22, the area defined by which is covered with a suitable covering member 23 which may be a suitable water proof fabric or the like and which may be stretched over the area inclosed by the frame 22 and secured in position through the medium of securing elements such as 24. The end wall 20 includes a frame 25, the area inclosed by which is closed by a transparent plate 26 which may be formed from plate glass or the like. The end wall 21 includes a frame 27, the area inclosed by which frame is covered by a transparent plate 28 which may also be formed from plate glass or the like.

Suitable hinges such as 29 are arranged on the upper side of the frame 17 and serve to hingedly connect the side wall 19 to the lower wall 16. Suitable hinges such as 30 are employed for interconnecting the end walls 20 and 21 to the side wall 19. Provided on the side rails of the frame 17 are pivotally mounted latch members such as 31 which engage pins such as 32 on the lower rails of the frame 20 and in this manner the bottom 16, the side wall 19 and the end walls 20 and 21 are held in assembled position.

At the upper end of the wall 19 an outwardly disposed rail 33 is provided. Hinges such as 34 have one of the leaves thereof attached to this rail 19 and the other of the leaves of the hinges 34 are connected to a plate 35. At the ends of the plate 35 rails 36 and 37 are secured. A groove 38 is provided in the rail 36 and a similar groove is provided in the rail 37 and extended into this groove is a plate 39 which has a portion thereof disposed to extend over a portion of the plate 35. The superimposed portions of these plates have arranged therebetween a sheet of material 40 which is intended to absorb shocks between the plates 35 and 39. By reason of the mounting of the plates 35 and 39 it is manifest that the plate 39 may be adjusted toward or away from the plate 35 and by reason of the hinged mounting of one edge of the plate 35 it is manifest that said plate may be adjusted into various angular positions with respect to the upper ends of the walls 19, 20 and 21. In order to hold the plates 35 and 39 in these positions I provide the following arrangement. On the under side of the plate 39 adjacent each end thereof eyelets such as 41 are provided. Substantially oval shaped relatively elongated members 42 are provided which are passed through the eyelets 41. Mounted on the outwardly disposed surface of the rails of the end walls 20 and 21 adjacent the upper ends of these rails are thumb screws such as 43 below which the members 42 are disposed and by tightening the thumb screws 43 the members 42 may be clamped in different positions and, therefore, the plates 45 and 39 will be held in different angular positions.

The edge of the plate 39 disposed away from the plate 35 is bent to provide a rail 44. Arranged below the side rail of the frame 16 opposite that carrying the hinges 29 and extending outwardly from this rail are lugs 45. When the device has been assembled in the manner heretofore set forth the window 14 is moved into open position by being slid forwardly behind the window 13. The device is then mounted with the lugs 45 in the lower guide rail for the sash 14 while the rail 44 is disposed in the upper guide rail for the sash. The end wall 20 is disposed in abutment with the rearward edge of the window opening 11. The rearwardly disposed edge of the sash 14 is disposed in abutment with the end wall 21. On the inwardly disposed rail of the frame 27 of the end wall 21 and extending outwardly therefrom is a substantially U-shaped clamp 46 associated with which is a thumb screw 47. The sash 14 is disposed with the rear rail thereof in this clamp 46 and by tightening the thumb screw 47 it is manifest that the device 15 will be retained in position. It is apparent that by varying the location of the sash 14 the device may be expeditiously associated with window openings of different widths. By varying the angular inclination of the plates 35 and 39 in the manner set forth it is manifest that the height of the device may be varied and, therefore, it may be associated with windows of varied heights, it being apparent that as the angle between the plate 35 and the top rails of the side and end walls is decreased the plate 39 will be moved inwardly toward the plate 35 so as to properly locate the rail 34. In order to close the space between the plates 35 and 39 and the upper ends of the end and side walls flaps of flexible material indicated by 48 are secured to the plate 35 and to the upper rails of the end walls. The flaps 48 are fixedly connected to the plate 35 and are detachably connected to the upper rails through the employment of fastening elements such as 49. Similarly flaps 50 are connected to the upper side of the plate 39 and are connected to the upper rails of the end walls by detachable fastening elements such as 51.

It is manifest from the foregoing description that an inclosure is provided which will extend from the side of a locomotive cab and by reason of the transparent plates in the end walls thereof it is manifest that a clear vision of the track and signals may be had by positioning the head in the device and at the same time ample protection and inclosure is provided.

In order to afford vision outwardly of the cab an opening is provided in the covering member 23 which is closed by a transparent plate 52 that is retained in position by bezel construction 53. It is to be understood that the magnitude of this plate 52 may be varied in accordance with the needs.

It has been pointed out heretofore that the device is intended to be collapsed so as to facilitate transportation thereof and this is easily accomplished by reason of the hinged interconnections of the various portions of the device. When it is desired to collapse the structure the members 42 are released from below the thumb screws 43. A thumb screw arrangement 54 is provided by which the member 42 connected to the eyelets 41 may be interconnected in parallel relation with the plate 39. The fastening elements 51 and 49 will be detached and the flaps 48 and 50 will be folded onto the plates with which they are associated and the plate 39 will be slid over the plate 35 in order to render this arrangement more compact. The end walls 20 and 21 will be moved about the hinges 30 toward the side wall 19 and a hook such as 55 is provided for connecting the end walls after they have been folded into this position. The bottom wall 16 will then be folded over the end walls 20 and 21 as depicted in Fig. 5. A suitable carrying handle 56 is provided on the lower rail 57 and, therefore, by gripping this handle 56 the device may be expeditiously transported.

It is manifest from the foregoing description that I have provided an arrangement which may be very expeditiously set up or taken down and I have arranged this device in a manner which will permit easy installation or removal thereof for it is manifest that the device is arranged so as to be readily adjustable and in this way it may be associated with openings of varied sizes.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

A portable window inclosure structure comprising a housing including a side wall structure including a transparent portion, said housing having an open side opposite said side wall structure, end wall structures hingedly connected to said side wall structure and including transparent portions, a lower wall structure hingedly connected to said side wall structure, an upper wall structure hingedly connected to said side wall structure and adjustable with respect to the upper edges of said side and end walls, means for securing said upper wall structure in adjusted positions with respect to the upper ends of said side and end walls, means in said upper wall structure and said lower wall structure for retaining said inclosure structure in a window opening, means on one of said end walls for engaging a window to hold said inclosure structure in a window opening, means for retaining said inclosure structure in collapsed position and a handle member whereby said side wall structures may be folded toward each other in parallel alignment with said side wall structure, said upper wall structure may be folded in upon said side wall structure and in parallel alignment therewith opposite said end wall structures, and said lower wall structure may be folded over said end wall structures and in parallel alignment therewith to permit said inclosure structures to be conveniently transported.

In testimony whereof I affix my signature.

CHARLES M. HORSMAN.