

T. J. QUIRK.
 GUARD OR PROTECTOR FOR LOCOMOTIVE CABS, &c.
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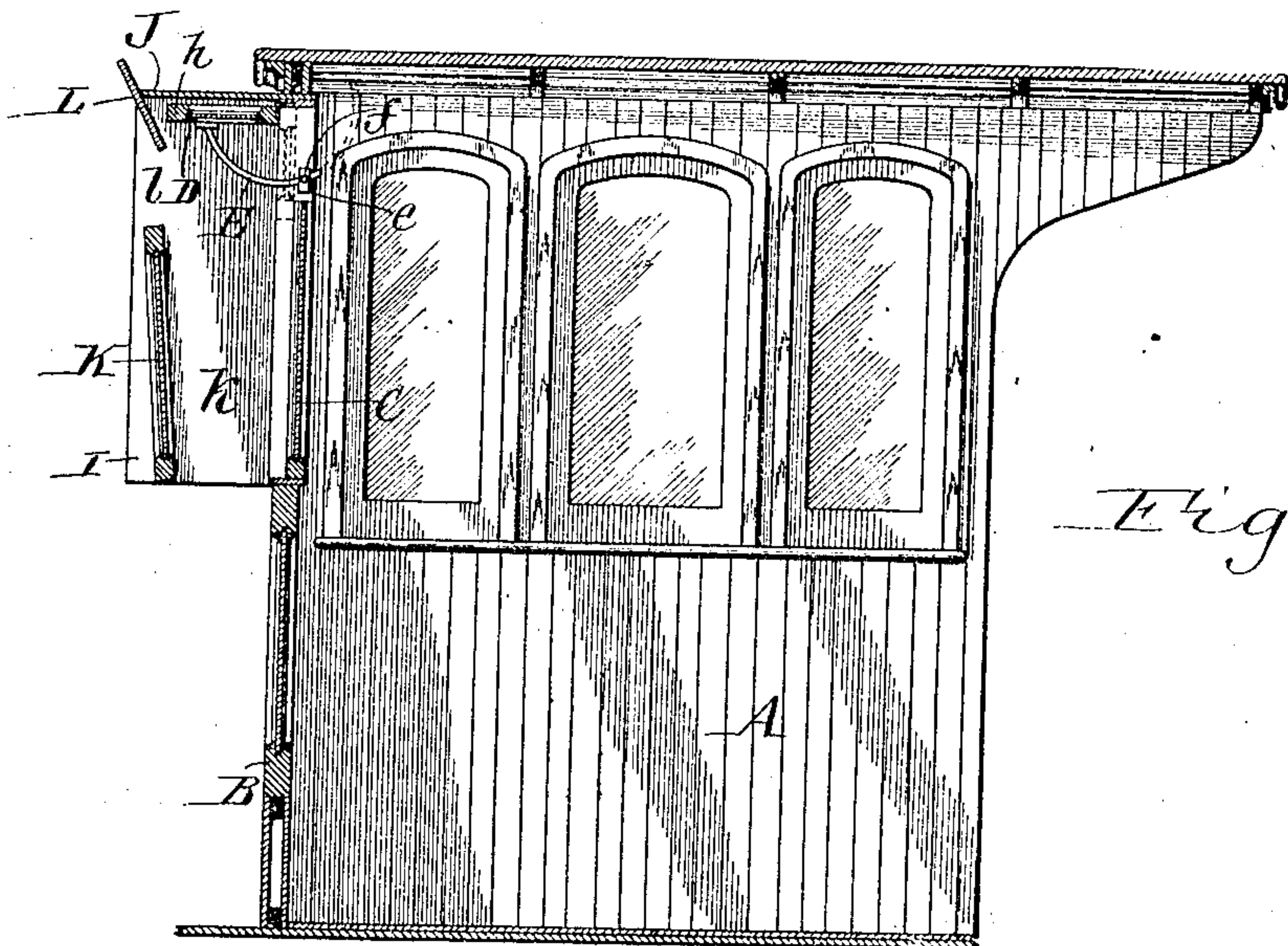


Fig. 1.

Fig. 2.

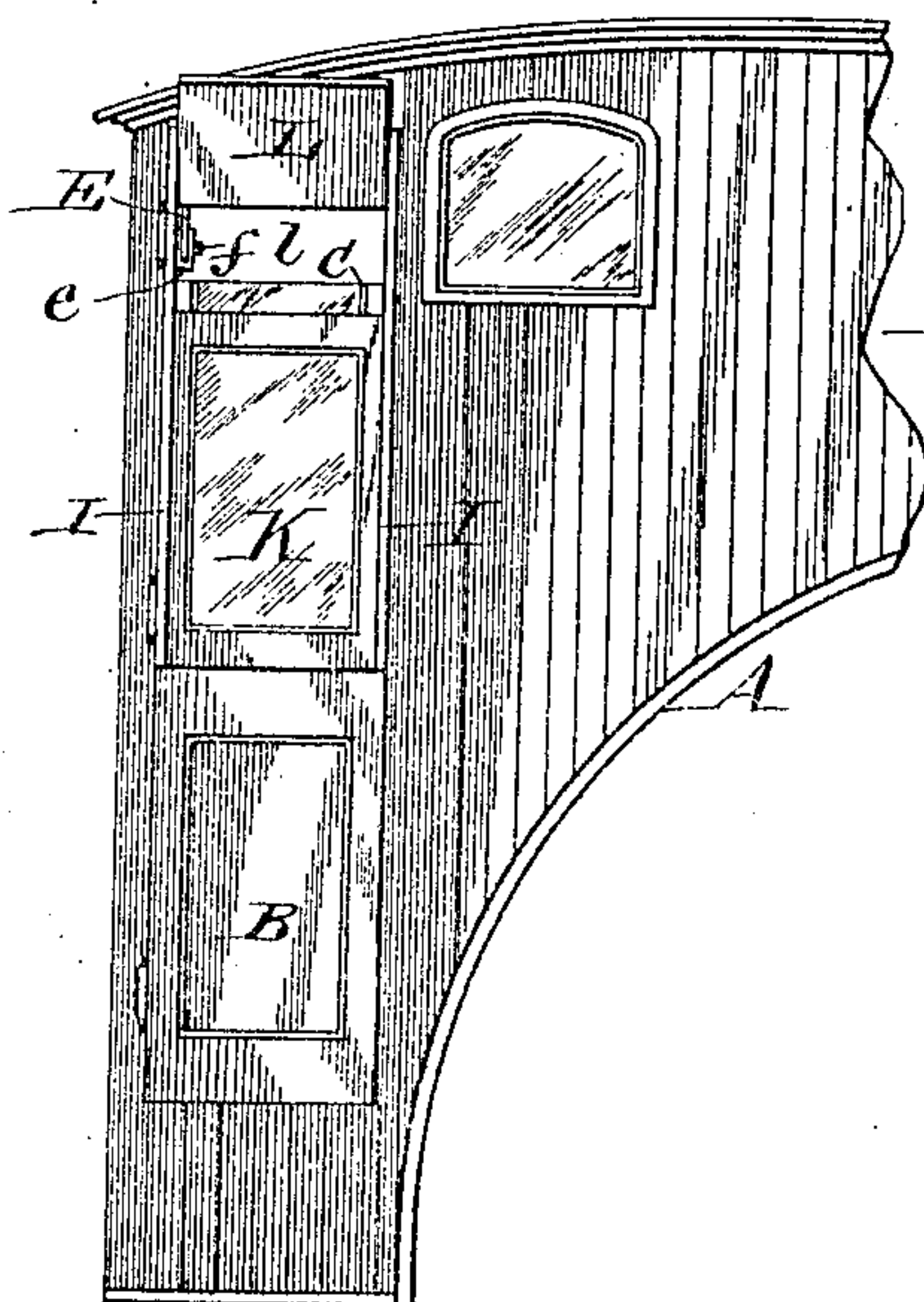
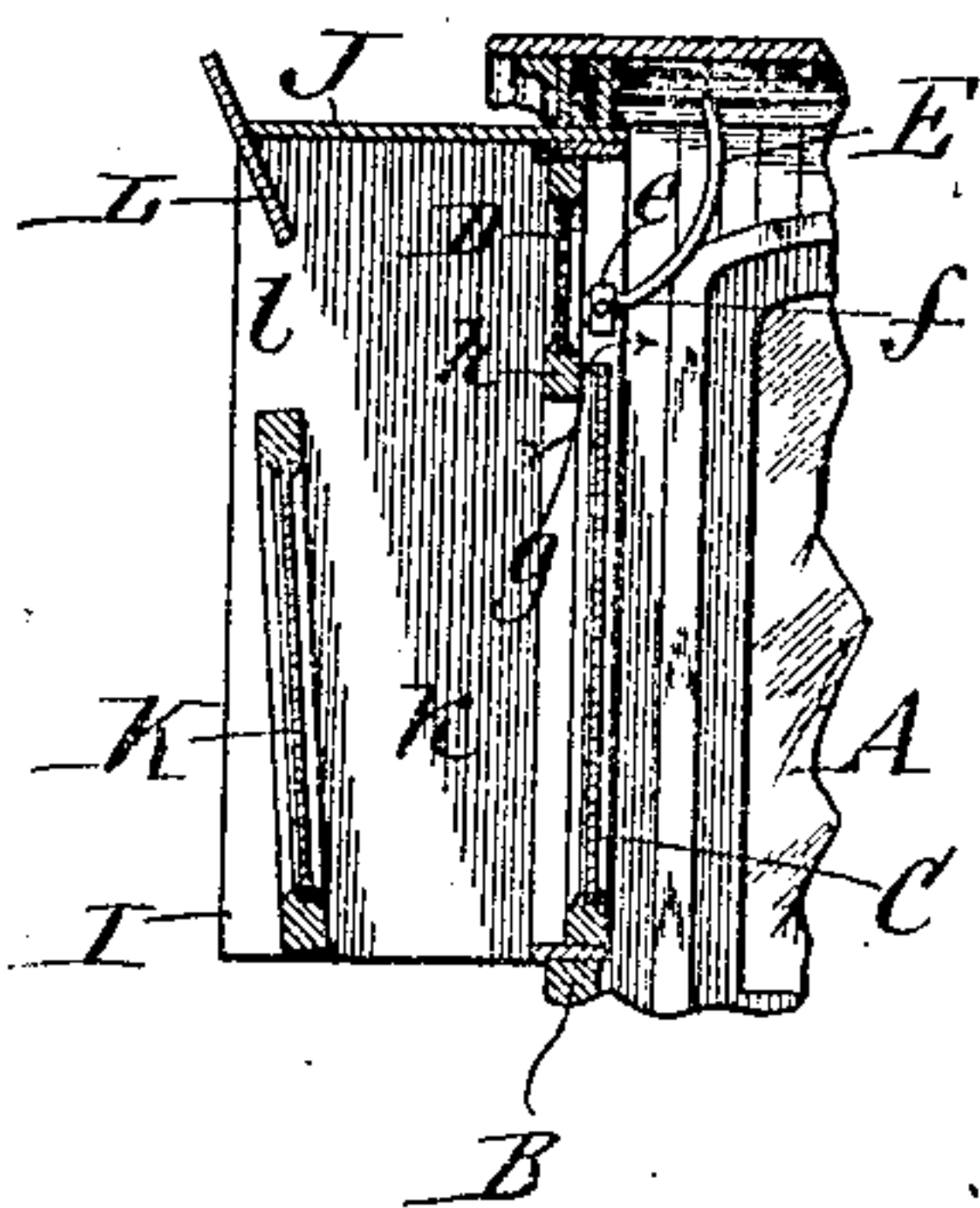


Fig. 3.

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UNITED STATES PATENT OFFICE.

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GUARD OR PROTECTOR FOR LOCOMOTIVE-CABS, &c.

No. 919,379.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS J. QUIRK, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Guards or Protectors for Locomotive-Cabs, &c., of which the following is a specification.

This invention relates to a storm guard or protector which is more particularly designed for use on locomotive cabs or street car vestibules but which may also be used on buildings, the pilot houses of boats and elsewhere. Heretofore such cabs and vestibules have usually been provided with a window having a lower fixed sash and an upper movable sash which was opened in pleasant weather and closed in stormy or unpleasant weather. The closing of both sash while it is raining, snowing or while insects are numerous in the air is objectionable, because the glass becomes covered with water, snow or insects and thus interferes with the engineer's, motorman's or pilot's view of the road ahead. Furthermore, the reflection of the light of the cab lamp on the closed window panes interferes with the view through the same.

One of the objects of this invention is to provide a guard or protector of the character described which will permit of leaving part of the observation window open at all times and thus do away with the objection of the glass becoming covered with snow, rain or insects, but at the same time preventing the objectionable matter from entering the compartment while the window is thus opened, thereby permitting a person to have a clear view of the track ahead.

Another object of this invention is to cause a circulation of air on the inside of the movable sash of the observation window when the same must be closed in case the guard or protector becomes broken and thus prevent condensation on this sash which otherwise would obscure the view of the watchman.

In the accompanying drawings: Figure 1 is a longitudinal sectional elevation of a locomotive cab having its forward or observation window provided with my guard or protector, showing the parts in one position. Fig. 2 is a similar view showing the parts in another position. Fig. 3 is a fragmentary front elevation of the same.

Similar letters of reference indicate corresponding parts throughout the several views.

A represents the engineer's cab of a locomotive which is usually provided on one side of its front wall with a door B the upper part of which contains a lower fixed window sash C and an upper movable window sash D. The latter is pivoted at its upper end on the door frame so that it can be swung forwardly and upwardly into its horizontal open position or downwardly and rearwardly into its vertical closed position. The upper window sash may be held in different positions by any suitable adjusting device that shown in the drawings being in common use and consisting of a curved rod E secured at one end to the upper sash while its opposite end is adapted to slide through a bracket e on the door B and be held therein by a set screw f.

In the closed position of the upper sash the lower edge thereof overhangs or overlaps the upper edge of the lower or fixed sash of the window but a vertical passage g between the meeting parts of these sashes is formed to permit external air to enter the cab and sweep upwardly across the inner side of the upper sash. By this means condensation on the inner side of the upper sash is avoided and prevented from interfering with the view of the engineer through this window sash. This is particularly desirable when the upper window sash has to be closed in case the guard or protector is broken. The preferred way of producing this air passage consists in constructing the lower fixed window sash without an upper horizontal cross bar, or rail, so that a space is left between the upper edge of the glass pane of the lower sash and the lower bar h of the upper sash, as shown in the drawings.

The guard or protector has a hood or case which comprises two upright side walls I, I extending forwardly from the cab door on opposite sides of the upper and lower sashes of the observation window and a transverse horizontal roof or top J extending forwardly from the door above the upper sash and connecting the upper ends of the side walls I, I. Between the lower front parts of the side walls and secured at opposite vertical edges thereto is an upright transverse wind break K which is separated from the opposing lower sash of the observation window by an intervening vertical passage k which is open at the top and bottom. The wind break is preferably constructed in the form of a window sash having a glass or transparent pane which permits the engineer to look downwardly at

an angle through the panes of the lower sash of the observation window and the wind break and view the track immediately in front of the locomotive. The wind break
5 preferably inclines from its upper end toward its lower end so that any rain, snow or insects striking the front side of the same will be deflected downwardly, thereby reducing the tendency to lodge on the wind break and
10 interfering with a clear view through the same.

Above the wind break is a deflector L of metal or other opaque material which is secured to the front edge of the top of the casing and separated from the upper edge of the
15 wind break, forming a sight-opening I which is arranged in line with the upper sash-opening of the cab observation window.

When the upper sash is open, the engineer
20 looks through the opening of the same and the opening between the wind break and deflector to observe the track at a distance in advance of the locomotive. The deflector inclines from its upper edge toward its lower
25 edge, whereby snow and rain in stormy weather striking the deflector will be directed downwardly into the passage between the wind break and the lower sash of the observation window and escape from the lower
30 end of this passage. The deflector is able to thus direct the material downwardly through the passage K inasmuch as the body of air in the latter is quiet and not under horizontal pressure on account of the wind break K
35 which prevents the air from pressing horizontally against the lower sash C of the observation window. By this means the snow and rain and also insects are prevented from entering the cab through the observa-
40 tion window if the upper sash is open, which otherwise would interfere with the engineer obtaining a clear view of the road ahead.

The downward current of air in the passage which is produced by the deflector also
45 prevents accumulation of rain, snow and insects on the outer side of the lower observation window sash and prevents condensation on the inner side of the glass of the wind break, so that the engineer can always
50 look through the same.

My improved guard or protector not only prevents rain, snow and insects from entering through the observation window of the cab when the same is open, but also prevents
55 any interference with the view of the engineer from the light of the cab lamp, inasmuch as the guard or protector avoids the necessity of closing the upper sash of the observation window and thus eliminates the
60 reflection of the cab light on the glass pane of the cab window which otherwise would occur and obscure the view of the engineer.

I claim as my invention:

1. The combination with the body of a
65 compartment having an observation open-

ing, of a guard or protector comprising two upright side walls arranged on opposite sides of said opening, a top connecting the upper ends of the side walls, and a wind break arranged between the front parts of the side
70 walls and separated from the body by an intervening vertical passage.

2. The combination with the body of a compartment having an observation opening, of a guard or protector comprising two
75 upright side walls arranged on opposite sides of said opening, a top connecting the upper ends of the side walls, and an inclined wind break arranged between the front parts of the side walls and separated from the body
80 by an intervening vertical passage.

3. The combination with the body of a compartment having an observation opening, of a guard or protector comprising two
85 upright side walls arranged on opposite sides of said opening, a top connecting the upper ends of the side walls, a wind break arranged between the front parts of the side walls and separated from the body by an intervening
90 vertical passage, and an inclined deflector arranged adjacent to said top and separated from the wind break by an opening which is in line with the opening in the body.

4. The combination with the body of a compartment having an observation open-
95 ing, of a guard or protector having two upright walls arranged on opposite sides of said opening and a top connecting the side walls above said opening, a wind break connecting the lower front parts of said side walls and
100 separated from the body by an intervening vertical space, and a deflector arranged adjacent to said top and separated from the wind break by an opening which is arranged in line with the opening in the body, and said deflec-
105 tor being inclined rearwardly from its upper to its lower end, so that anything striking the front side of the same will be directed downwardly into the passage between the wind break and the body.
110

5. The combination with the body of a compartment having an observation window provided with a lower transparent sash and an upper transparent sash which is capable of being opened and closed, of a guard or pro-
115 tector comprising side walls on opposite sides of said window, a top connecting the side walls above the window, and a transparent wind break arranged between the lower front parts of said side walls and separated by an
120 intervening vertical passage from the lower transparent sash of said window.

6. The combination with the body of a compartment having an observation window provided with a lower transparent sash and
125 an upper transparent sash which is capable of being opened and closed, of a guard or protector comprising side walls on opposite sides of said window, a top connecting the side walls above the window, a transparent wind
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break arranged between the lower front parts of said side walls and separated by an intervening vertical passage from the lower transparent sash of said window, and an inclined
5 deflector arranged adjacent to said top and separated by an intervening opening from said wind break.

Witness my hand this 22nd day of September, 1908.

THOMAS J. QUIRK.

Witnesses:

THEO. L. POPP,
ANNA HEIGIS.