Aug. 7, 1951 G. MADLAND 2,563,178

RAILWAY HOUSE CAR CONSTRUCTION

Filed Dec. 10, 1948

FIG-1

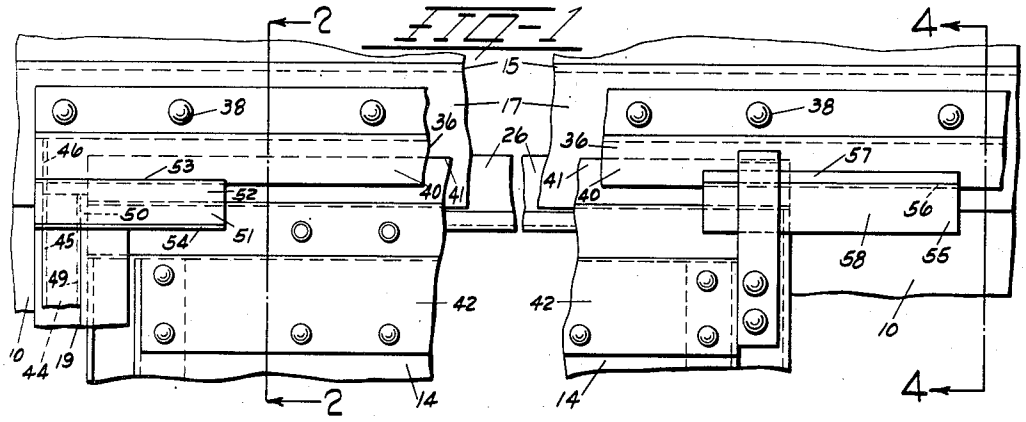


FIG-2

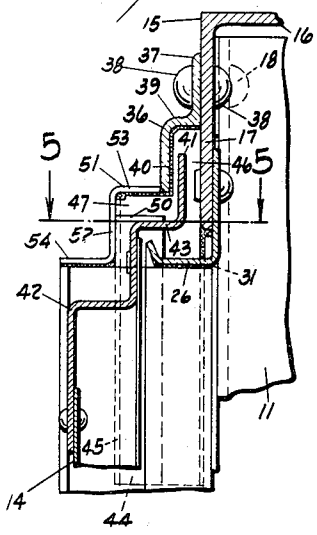


FIG-3

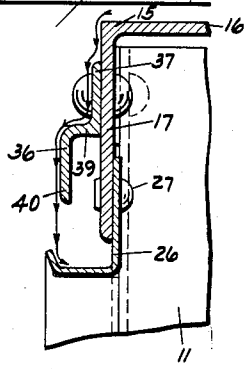


FIG-4

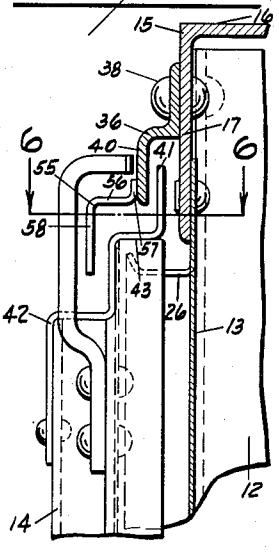


FIG-5

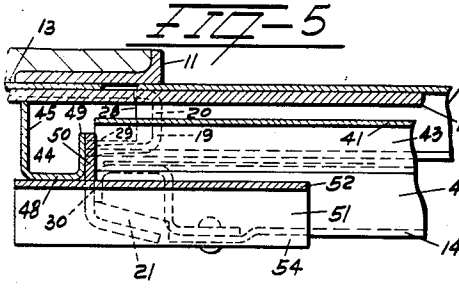
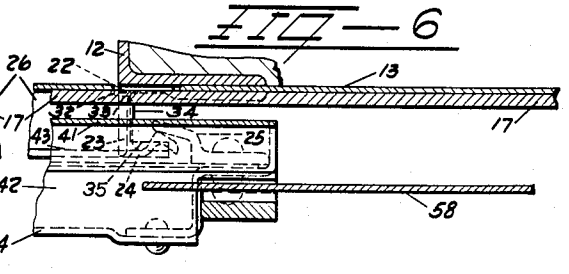


FIG-6



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RAILWAY HOUSE CAR CONSTRUCTION

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2 Claims. (Cl. 20—26)

1

This invention relates to railway house car construction and more particularly to a construction for protecting men and commodities from rain during loading and unloading of cars.

It is an object of this invention to provide a construction for railway house cars which shall intercept rain flowing off the roofs of the cars and discharge the rain beyond the door openings formed in the side walls of the cars.

A further object is to provide a construction for railway house cars which employ the headers normally used in the cars to intercept rain flowing off the roofs of the cars and discharge the rain beyond the door openings formed in the side walls of the cars.

A further object is to provide a construction for railway house cars of the character described above with an attendant reduction in cost of the cars.

Other objects of the invention will become clear as the description thereof proceeds.

In the drawings forming part of this specification:

Fig. 1 is a fragmentary elevation of the upper portion of a side wall of a railway house car including the door opening and the upper portion of a sliding door mounted on the car.

Fig. 2 is a vertical section taken on line 2—2 of Fig. 1.

Fig. 3 is a vertical section similar to Fig. 2 with the door and other parts omitted and the path of rain flowing off the car roof indicated by arrows.

Fig. 4 is a vertical section taken on line 4—4 of Fig. 1.

Fig. 5 is a horizontal section taken on line 5—5 of Fig. 2.

Fig. 6 is a horizontal section taken on line 6—6 of Fig. 4.

Referring to the drawings, a portion of a side wall 10 of a railway house car is illustrated. The side wall is of the usual A. A. R. construction and for the purpose of the instant invention may be described as comprising front and rear door posts 11 and 12 which are of well known channel-shaped section and to which outer metallic sheathing 13 is secured. The door posts define the sides of a door opening which is adapted to be closed by a door 14 of any desired construction mounted for sliding movement upon the outside of the car wall in any desired manner. A side plate 15 extends across the top of the door opening and is of well known substantially W-shaped section which embodies an outwardly extending web 16 and a depending flange 17. The door posts

2

11 and 12 lie inwardly of the depending flange 17 and are secured to the inner face thereof as by means of rivets 18.

The front door post 11 carries a well known front stop 19 which presents an inner forwardly extending channel portion 20 and an outer rearwardly extending channel portion 21 adapted to receive the front portion of the door when the latter is in closed position. The rear door post 12 carries the customary angle member 22 to the outstanding leg 23 of which is secured a spark and sealing strip 24 adapted to have cooperative sealing engagement with a sealing strip 25 secured to the rear marginal portion of the door.

A trough-shaped header 26 substantially J-shaped in section is secured as by means of rivets 27 to the depending leg 17 of the side plate. As is clearly shown in Figs. 2–4, inclusive, of the drawings, the trough-shaped header extends outwardly from the side plate and as appears from Figs. 5 and 6 of the drawings the trough-shaped header extends beyond the sides of the door opening so that any matter trapped within the header will be discharged beyond the door opening. For the latter purpose the front door stop 19 terminates below the header as is clearly shown in Figs. 2 and 5 of the drawings and the header which is coped as indicated by the lines 28 and 29 extends to the inner face of the web 30 of the rearwardly directed channel portion of the front stop. The upper edge of the front stop is welded to the underside of the header as indicated at 31. At its rear edge the header is coped as indicated by the lines 32, 33, 34 and 35 so as to follow generally the outline of the spark and sealing strip 24 which terminates below the header.

A substantially Z-shaped door retainer 36 serves to guide and retain the upper portion of the door upon the side wall. The retainer embodies an upwardly extending flange 37 which is secured to the depending leg 17 of the side plate as by means of rivets 38, an outwardly extending web 39 and a downwardly extending flange 40 which lies in spaced relationship to the depending leg of the side plate to provide space for receiving the upwardly extending flange 41 of a reinforcing plate 42 for the door. The downwardly extending flange 40 of the retainer terminates above the header so as to provide space for the outwardly extending web 43 of the door reinforcing plate 42. Moreover, the downwardly extending flange 40 of the retainer is spaced inwardly of the outer edge of the header so that as is clearly shown in Fig. 3 of the drawings, any

rain flowing off the roof across the door opening will be trapped by the header and discharged either at the front edge or rear edge of the header beyond the door opening. The door header is thus utilized not only as a means for trapping dust, cinders and the like which may tend to blow over the upper edge of the door, but also as a means for intercepting rain flowing off the car roof across the door opening so as to protect men and commodities in the operation of loading and unloading freight cars.

In order to cover the front edge of the header and to provide a spout for the discharge of rain from this edge of the header a substantially channel-shaped plate member **44** is utilized which extends downwardly a substantial distance below the header. The member **44** embodies a flange **45** which has a portion **46** extend between the side plate and the downwardly extending flange **40** of the door retainer and a portion **47** which extends outwardly below the downwardly extending flange **40**. The member **44** also embodies a web **48** disposed in spaced parallel relationship to the flange **17** of the side plate and a flange **49** which extends inwardly from the web **48** and terminates short of the flange **17**. The flange **49** abuts the web **30** of the channel portion **21** of the front stop and carries a short plate **50** which extends upwardly from the top edge of the web **30** and is of the same width as this web. A Z-shaped weather guard **51** is utilized at the front edge of the door opening and embodies a vertically disposed web **52** which abuts the web **48** of the plate member **44**, an upper inwardly extending flange **53** disposed upon and welded to the portion **47** of the flange **45** and a lower outwardly extending flange **54** disposed upon and welded to a portion of the upper edge of the front stop.

A weather guard is also utilized at the rear edge of the door opening. This weather guard **55** is also substantially Z-shaped in section and is arranged with its web **56** horizontal, its upstanding flange **57** abutting and welded to the downwardly extending flange **40** of the door retainer and its flange **58** extending downwardly in spaced relationship to the web **43** of the door reinforcing plate **42**. With reference to Fig. 6 of the drawings, it will be seen that the rear weather guard **55** extends rearwardly from the rear side of the door opening.

It will be apparent that numerous changes and modifications in the details of the invention will be clear to those skilled in the art. It is intended, therefore, that all such modifications and changes be comprehended within this invention, which is to be limited only by the scope of the claims appended hereto.

I claim:

1. In a railway house car having a door opening, a side plate extending across the top of said door opening, a trough-shaped header secured to and extending outwardly from said side plate, and a door retainer secured to said side plate above said header, said retainer having a downwardly extending flange spaced outwardly from said side plate, said header projecting outwardly beyond said retainer flange.

2. In a railway house car having a door opening, a side plate extending across the top of said door opening, a header secured to and extending outwardly from said side plate and upwardly, a door retainer secured to said side plate above said header, said retainer having a downwardly extending flange spaced outwardly from said side plate, said header projecting outwardly beyond said retainer flange, and a weather guard secured to said retainer flange adjacent to the rear side of said door opening, said weather guard extending outwardly and downwardly from said retainer flange.

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