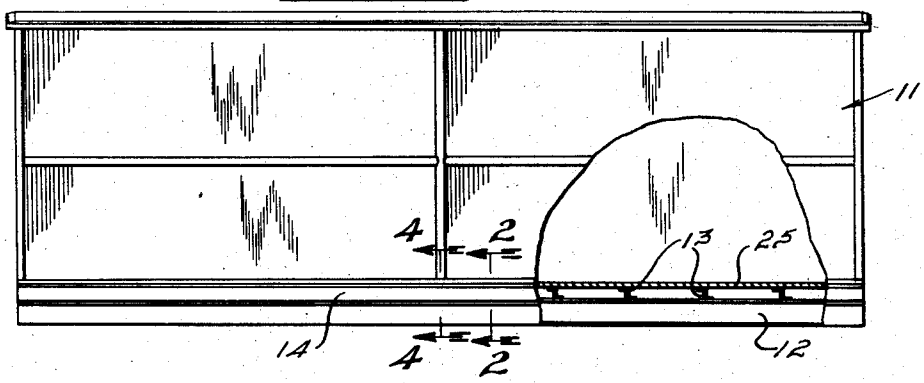
Dec. 3, 1935. F. M. REID 2,022,869

VEHICLE BODY

Filed March 31, 1934

FIG. 1.



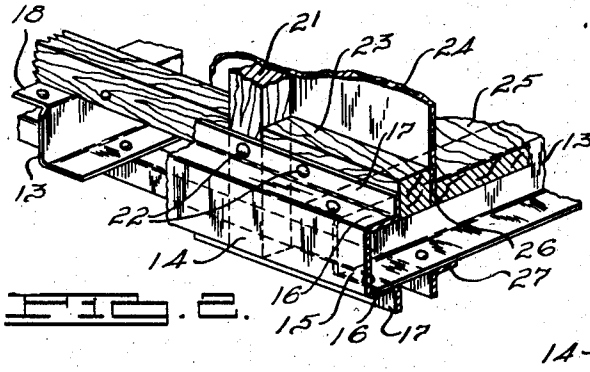


FIG. 2.

FIG. 3.

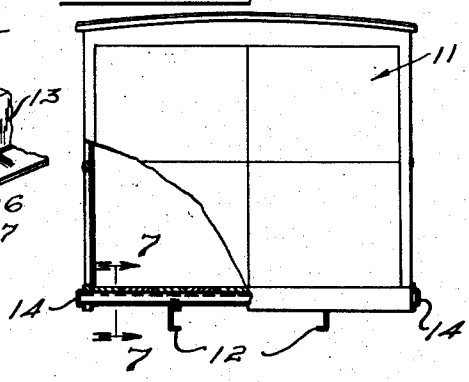


FIG. 4. FIG. 5.

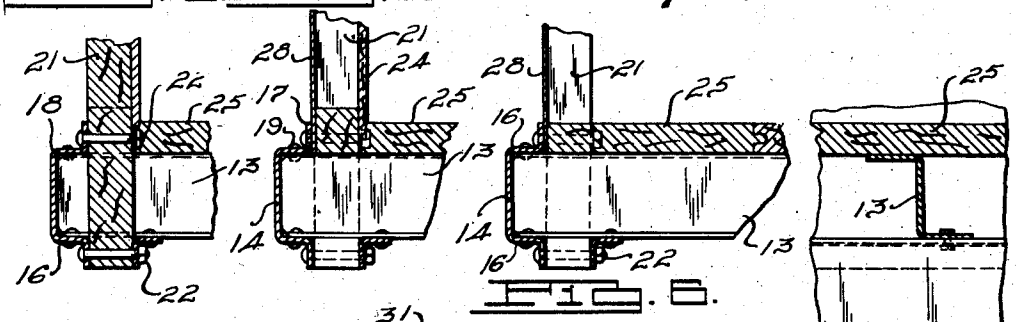


FIG. 6. FIG. 7.

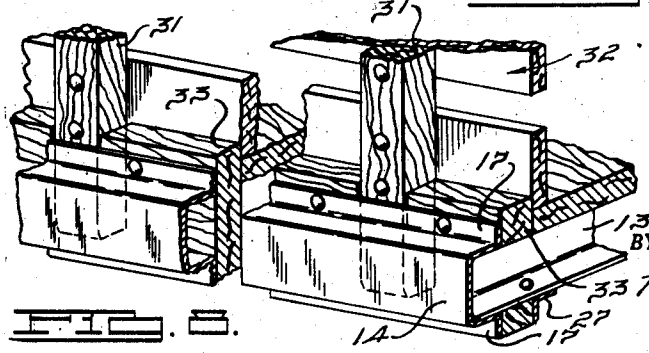


FIG. 8.

INVENTOR.
Frederick M. Reid.
BY
Harness, Dickey, Pierce & Hann
ATTORNEYS.

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VEHICLE BODY

Frederick M. Reid, Detroit, Mich., assignor to Fruehauf Trailer Company, a corporation of Michigan

Application March 31, 1934, Serial No. 718,317

10 Claims. (Cl. 296—28)

My invention relates to vehicle bodies and particularly to vehicle bodies of the truck or trailer type which may be of opened or closed construction.

Several methods have been employed heretofore in building bodies of the closed and open type, or an interchangeable combination thereof, in which sills were provided, interconnected by cross members and employed as a base to which the uprights, top and panels were secured. When a rub rail was employed on the body, it was usually a separate element distinct from the sill upon which the body was constructed.

In the present invention, I employ rub rails as the sill of the body and have provided cross members interconnected therewith upon which the floor of the body is secured. I employ the rub rail as a means for supporting the stakes or pillars constituting the upper frame work of the body. In this manner, an extremely rigid construction is provided which is protected by the rub rail against damage and which is materially simplified. When removable pillars or so-called "stakes" are employed in the body side construction, apertures are formed by the rub rail and its associated elements for receiving and supporting the pillars, from which they are removable. The entire body could be constructed in this manner, having the pillars removable from apertures or pockets formed by the rub rail and its associated elements and the side gates could be substituted therefor to form an open body structure when the closed body is removed.

Accordingly, the main objects of my invention are; to form the base of a vehicle body with laterally extending rub rails which are interconnected by cross elements; to support the upwardly projecting elements of the body sides on the inner faces of the rub rail to be protected thereby; to have the pillars of a closed body construction disposed adjacent to the inner faces of the rub rails and secured thereto and braced against longitudinal movement by associated elements which are also secured to the rub rail; to provide paneling on the pillars on the inside and/or outside thereof to form a closure for the body; to provide an inner rail element along on the cross elements spaced from the rub rail to form pockets for receiving stakes of a side gate from which they are removable; to provide spaced pockets on the inner face of the rub rails for receiving stakes or pillars of the body or side gates which are interchangeable to form a closed or an open body construction as may be desired; and, in general, to provide an improved vehicle body construction which is simple, rigid and economical of manufacture.

Other objects and features of novelty of my invention will be either specifically pointed out or will become apparent when referring, for a better understanding of my invention, to the following description taken in conjunction with the accompanying drawing, wherein:

Figure 1 is a side elevational view, partly in section, of a vehicle body embodying features of my invention.

Fig. 2 is an enlarged sectional view of the structure illustrated in Fig. 1, taken on the line 2—2 thereof,

Fig. 3 is an end view of the structure illustrated in Fig. 1 with a part in section,

Fig. 4 is an enlarged sectional view of the structure illustrated in Fig. 1, taken on the line 4—4 thereof,

Fig. 5 is a view of structure, similar to that illustrated in Fig. 4, showing a modified form thereof,

Fig. 6 is a view of structure, similar to that illustrated in Fig. 4, showing a further modified form thereof,

Fig. 7 is an enlarged sectional view of the structure illustrated in Fig. 3, taken on the line 7—7 thereof, and

Fig. 8 is a broken perspective view of structure similar to that illustrated in Fig. 2, showing a modified form thereof.

The body 11, illustrated in Fig. 1, is bolted to a chassis frame 12 at the points of interconnection of cross members 13 thereof. The support of the body is entirely on the plurality of cross members 13 which are spaced from each other and provided throughout the longitudinal dimension of the body. The elements 13 are of Z-section and are connected to the side rub rail 14 which protrudes beyond the floor and bottom side edges of the vehicle to protect the vehicle body and form a substitute for the usual sill thereof. The rub rails 14 thus serve a dual purpose.

It will be noted in Figs. 2 to 8 that the rub rail 14 is of channel section having a central web 15 and sides 16 which are flanged outwardly therefrom as at 17. The channels of the rub rails 14 open inwardly and are of a depth to closely receive the corresponding ends of the cross members 13 which are angularly cut or chamfered at 18 to also permit a firm abutting engagement between the ends of the members and the web 15 of the rub rails 14. The flanges of the members 13 are rigidly secured to the sides 16 of the rails by suitable means, herein illustrated as rivets 19,

but it is to be understood that other means such as welding, brazing, bolting or the like may be utilized in lieu of the rivets.

Body pillars 21 are disposed against the inner face of the flanges 17 and are secured thereto preferably by bolts 22, as illustrated more clearly in Figs. 4, 5 and 6. Where body paneling is employed on the inner faces of the pillars 21, spacing elements 23 are secured by bolts 22 to the inner faces of the upper flanges 17 between and in abutted relation to adjacent pillars 21. In this manner the pillars are not only supported against movement by the bolts 22 which retain the pillar tightly against the inner surfaces of both the flanges 17, but are additionally supported against longitudinal movement by the elements 23 which are disposed between the pillars and are bolted to the upper flanges 17.

In Fig. 2 I have illustrated an inner panel 24 secured on the inner side of the pillars 21 and the interconnecting elements 23 to form a closed body. The flooring 25 is then laid upon the Z members 13 having the elements adjacent to the panels 24 notched at 26 to abut against the element 23 and the side panels 24.

To further support and brace the pillars, I may employ an angle member 27 extending parallel to the rub rail, having one flange in engagement with the inner side of the pillars 18 and the other riveted or otherwise secured to the bottom flange of the Z members 13. Bolts 22 extend through the bottom flange 17 of the rail 14, through the pillar and the depending flange of the angle member 27 to form a more rigid support for the ends of the pillars 21. It is to be understood that the angle element 27 need not be employed in all cases but is preferably in certain structures to provide additional strength when desired, its main function being found in connection with stake bodies where, as later described, it aids in the formation of the stake pockets.

In Fig. 5, I have illustrated a further form of my invention wherein an outer panel 28 is employed in combination with the inner panel 24. The outer panel is disposed adjacent to the flanges 17 of the rub rails 14 to be secured against the pillars 21 and spacing elements 23. In Fig. 6, I have shown a further form wherein the inner panel 24 is entirely omitted and the outer panel 28 is employed as illustrated in Fig. 5. In this case the spacer elements 23 are eliminated and the floor 25 extends out to and into contact with the outer panel 28.

In Fig. 8, I have shown a modified form of the above construction wherein stakes or removable pillars 31 are provided on the side gates 32 of the body which are removable. In this construction, filler elements 33 preferably extend across the two flanges 17 of the rub rails 14 to form closed pockets for the stakes 31. It is desirable to employ the angle member 27 in this construction to have the depending flange disposed opposite to the bottom flange 17 to form a closed pocket for the bottom of the stake 31. It will be noted that the stakes 31 are not permanently bolted or otherwise secured to the flanges 17 of the rug rail 14 but are removably disposed in the pocket formed thereby as above described. The stakes 31 are received by the pockets and are firmly supported thereby. It is to be understood that when desirable such pockets may be utilized in combination with the pillars 21 so as to have the body removable and the side gates 32 substituted therefor. In this manner, a closed type of body may be changed to an open type, both using the same supporting structure.

The paneling and top construction as well as the doors, windows and the like, follow the conventional construction well known in the automobile art and is not described herein. The trailer or body thus constructed is rigid and is protected by the extending rub rails. The construction is materially simplified by employing the rub rails in the place of the sills heretofore utilized and directly supporting the cross members thereto.

While I have described and illustrated several embodiments of my invention, it will be apparent to those skilled in the art that various changes, omissions, additions and substitutions may be made therein without departing from the spirit and scope of my invention as set forth in the accompanying claims.

I claim as my invention:

1. A vehicle body comprising a pair of inwardly presenting channel-shaped rub rails disposed longitudinally of the body, cross elements directly interconnecting said rub rails, vertically disposed pillars secured against the inner edges of said rails, flooring and siding supported on said cross elements, and pillars, respectively.

2. A vehicle body including, in combination, a plurality of spaced cross elements, inwardly presenting channel-shaped rub rails receiving the ends of said elements and having the inner ends outwardly extended forming vertically disposed flanges, and uprights supported against the inner faces of said vertically disposed flanges.

3. A vehicle body including, in combination, a plurality of spaced cross elements, inwardly opening channel-shaped rub rails interconnecting the ends of said cross elements and provided with vertically disposed flanges, upwardly projecting pillars secured to the inner faces of said flanges, and a spacing element secured to said flanges and abutting a side of said pillar.

4. A vehicle body including, in combination, a plurality of spaced cross elements, inwardly presenting channel members interconnecting the ends of said cross elements and having vertically disposed end flanges, upwardly projecting pillars secured against the faces of said flanges, a spacing element secured to said flanges and abutting a side of said pillar, and panels secured to said pillars.

5. A vehicle including, in combination, a plurality of spaced cross elements, rub rails of inwardly presenting channel section and interconnecting the ends of said cross elements and having oppositely directed vertically disposed flanges at the inner margins thereof, upwardly projecting pillars secured against the inner faces of said flanges, panels secured to said pillars, and flooring disposed upon said cross elements.

6. A vehicle body including, in combination, a plurality of spaced cross elements, inwardly presenting channel-shaped members interconnecting the ends of said cross elements and provided with vertically extending flanges, angle members secured to said cross elements in spaced relation with the lower flange on said first members, and means disposed at spaced intervals throughout the length of the members to form pockets therewith.

7. A vehicle body including, in combination, a plurality of spaced cross elements, inwardly presenting channel-shaped members interconnecting the ends of said cross elements and provided with vertically extending flanges, angle members se-

cured to said cross elements in spaced relation with the lower flange on said first members, means disposed at spaced intervals throughout the length of the members to form pockets therewith, and stakes on the body sides extending therebelow and disposed in said pockets.

8. A vehicle body comprising a plurality of spaced cross elements, longitudinally extending inwardly presenting channel-shaped side frame members interiorly receiving and interconnecting the ends of said cross elements, vertically disposed flanges integral with the inner edges of said frame members substantially continuous therewith, and elements forming pillar receiving pockets, bordered by the inner faces of said flanges.

9. In a vehicle body frame, an inwardly presenting channel-shaped outer frame member, vertically directed flanges integral the inner edges thereof, a plurality of spaced parallel cross members secured to said frame member and vertically disposed body pillars secured against the inner faces of said flanges.

10. In a vehicle body frame, an inwardly presenting channel-shaped outer frame member, vertically directed flanges integral with the inner edges thereof, a plurality of spaced parallel cross members secured to said frame member, and means forming pockets adjacent the inner faces of said flanges and adapted to receive pillars in abutting relation to the inner faces of said flanges.

FREDERICK M. REID.