

[54] **SELF-SUPPORTING COACH WORK OR CABIN**

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[30] **Foreign Application Priority Data**

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[57] **ABSTRACT**

[52] U.S. Cl..... **296/29; 52/528; 296/28 M**

[51] Int. Cl..... **B62d 33/04**

[58] Field of Search..... 296/28 M, 29; 52/482, 493, 52/528, 735

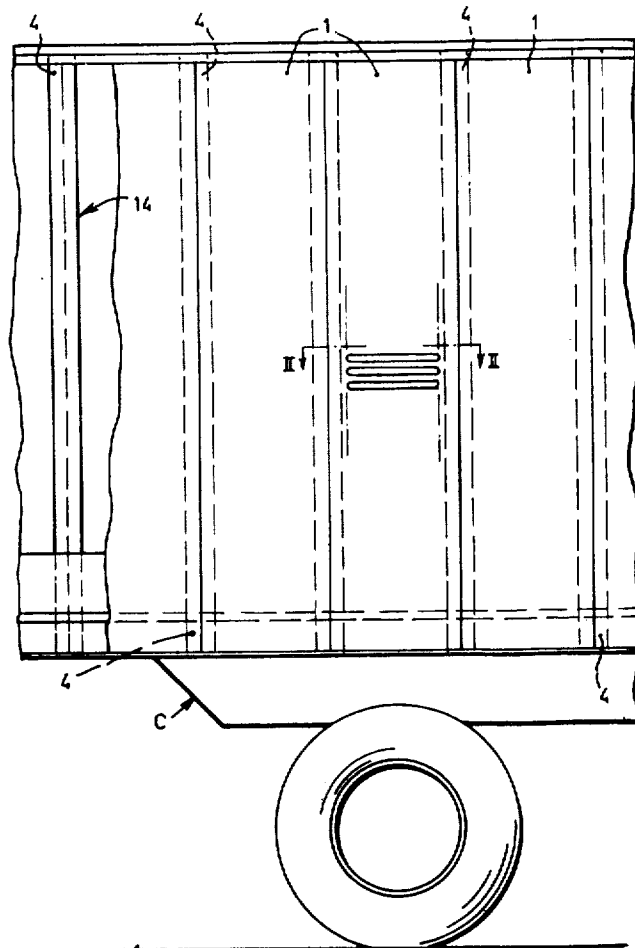
A coachbuilt vehicle has a chassis with uprights having panels attached thereto. Each upright has therein a slot or slots and adjacent panels are formed with in-turned flanges or lugs along two opposite edges for engagement in the slots in the uprights.

[56] **References Cited**

**UNITED STATES PATENTS**

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**2 Claims, 3 Drawing Figures**



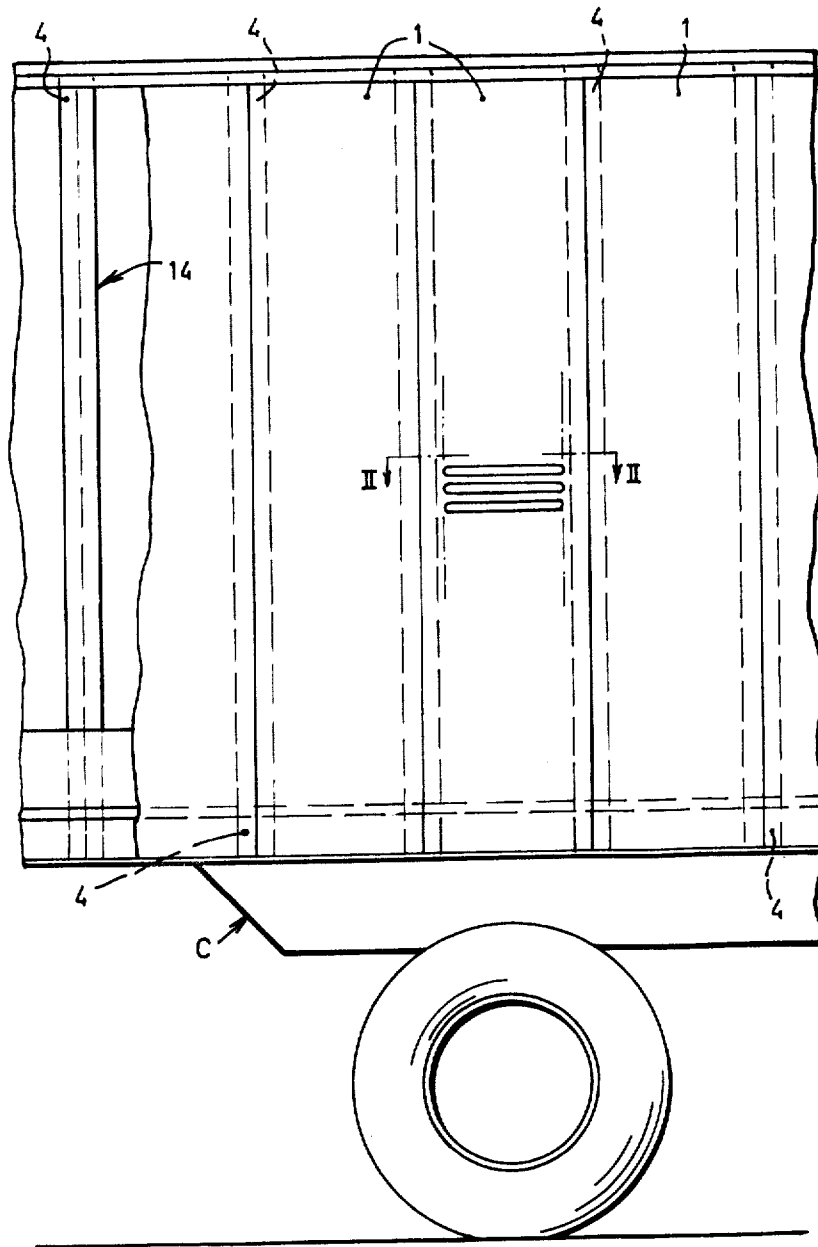
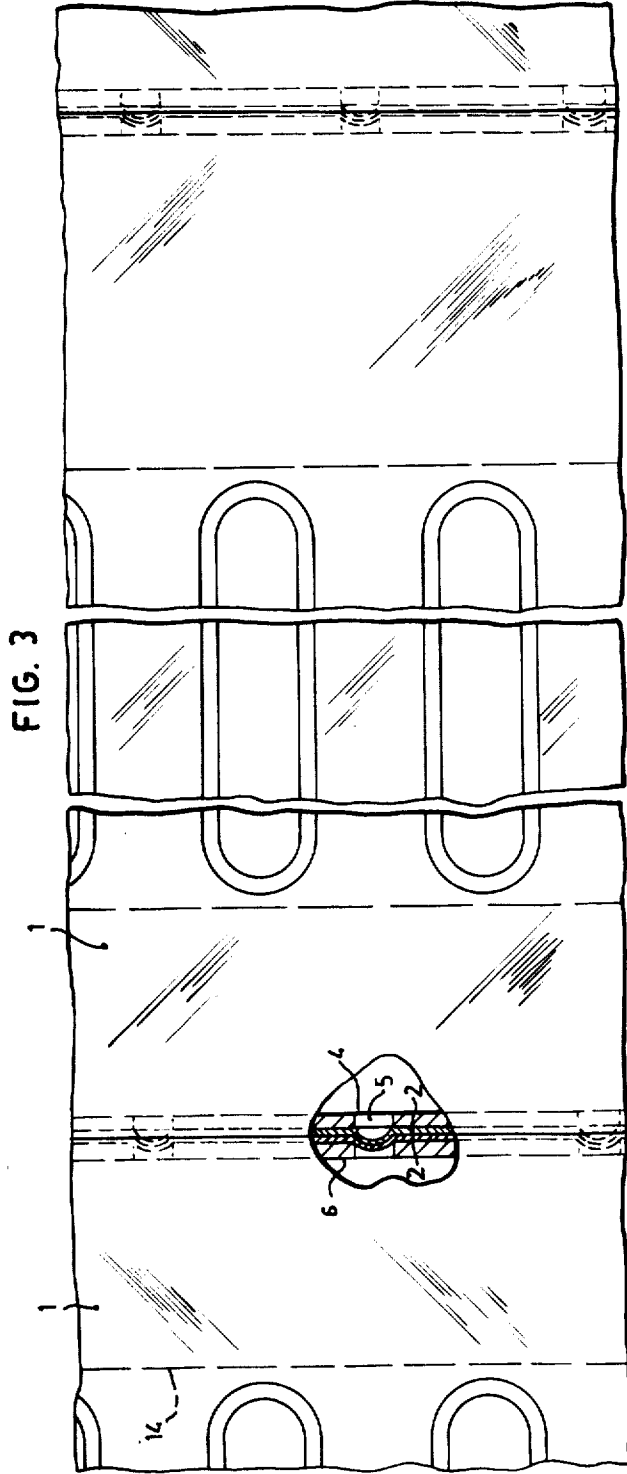
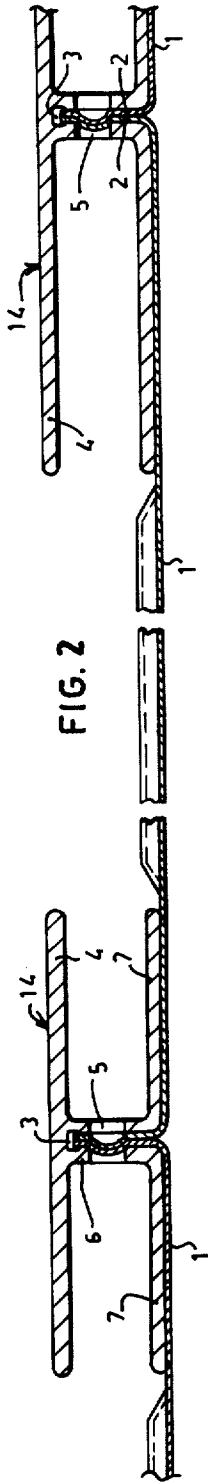


FIG. 1



**SELF-SUPPORTING COACH WORK OR CABIN**

**BACKGROUND OF THE INVENTION**

The present invention comprises a self-supporting coachwork for a vehicle, e.g., a semi-trailer or trailer of the kind in which the coachwork is constructed of panels or plates fastened to uprights on the vehicle.

In order to achieve a construction which is self-supporting the fastening of a panel to an upright must be of a non-shiftable character in order to withstand or support shearing stresses in the wall panels.

**SUMMARY OF THE INVENTION**

According to the present invention, a means of fastening two adjacent panels or plates to an upright or uprights forming part of the bodywork of a vehicle comprises deforming the panels or plates along two opposite edges to provide a fixing tongue or tongues and securing the tongue or tongues in a slot or slots provided in the upright.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The invention is illustrated in the accompanying drawings, in which:

FIG. 1 is a partial view in elevation of a vehicle, the coachwork of which comprises wall plates or panels mutually connected with the aid of fastening means according to the present invention;

FIG. 2 is a horizontal section on an enlarged scale, in the direction of the arrows II—II of FIG. 1, of the uprights on the vehicle chassis to which are secured wall panels, and

FIG. 3 is a side view of the wall panels of FIG. 2.

**DETAILED DESCRIPTION OF PREFERRED EMBODIMENT OF THE INVENTION**

Referring to FIG. 1, there is shown a vehicle chassis C fitted with uprights indicated at 14 an I-shaped or H-shaped cross section, each upright including a rear flange 4 joined by a web 6 to a bifurcated front flange. The two limbs 7 of the front flange project laterally from the entrant end of a vertical slot 3 formed in the web 6.

The wall panels 1 are secured in position by bending their opposite edges at right angles as at 2 to the face of the panel as clearly shown in FIG. 2 so as to form fixing tongues and inserting the abutting flanges so formed into the slot. By suitably selecting the gauge of the sheet metal or, e.g., plastics material, of which the panels are made, the panels may be a push (friction) fit in the slots 3.

In the embodiment illustrated the uprights are of H-shaped cross-section and are provided with holes or orifices 5 in the webs 6. This arrangement has the advantage that after the panels have been inserted into the slots 3 they can be fixed in position by deforming the portions of edge flanges 2 aligned with orifices 5, e.g., by means of a punch tool, so that a positive interlock

is obtained between the panels and the uprights. This non-shiftable connection with the bodywork or uprights ensures that any shearing stresses are transferred thereto.

Moreover the local impression in the bored holes made edgewise by means of the punching operation on the plates, will increase the strength of the structure.

What is claimed is:

1. In a coachbuilt vehicle including a chassis with uprights and panels non-detachably and non-shiftablely attached thereto, the improvement wherein:

said uprights comprise rigid, non-deformable members extending vertically upwardly from said chassis, each of said uprights having an I-shaped cross-sectional configuration with opposite flanges joined by a web, each of said uprights having a vertical slot extending through one of said flanges into said web, and the web of each of said uprights having aligned apertures extending therethrough on opposite sides of said slot;

each of said panels comprise members having opposite edges thereof bent along the entire length of the panel at right angles to the plane of the panel, thus forming inwardly turned panel flanges;

the adjacent panel flanges of adjacent of said panels being inserted into the slot of one of said uprights; and

each pair of said adjacent panel flanges inserted in one of said slots being permanently deformed in the same direction transverse to the respective web into said apertures therein to provide non-detachable panel locking means for preventing removal of said panels from said uprights.

2. A method for non-detachably and non-shiftablely attaching coachwork panels to the frame of a vehicle, said method comprising the steps of:

providing rigid, non-deformable uprights to extend vertically upwardly from said frame, each of said uprights having an I-shaped cross-sectional configuration with opposite flanges joined by a web; cutting a vertical slot in each of said uprights to extend through one of said flanges into said web; forming transverse apertures in said web to extend therethrough on opposite sides of said slot; bending opposite edges of said panels, along the entire length thereof, at right angles to the plane of said panel, thus forming inwardly turned panel flanges;

assembling adjacent of said panels with the adjacent of said panel flanges in abutting relationship; pressing the thus abutted panel flanges into said upright slots; and

thereafter permanently deforming said abutted panel flanges in the same direction transverse to the respective web into said apertures therein, thus preventing the removal of said panels from said uprights.

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