J. C. PILLSBURY.

STEEL FRAME OF RAILROAD CARS.

APPLICATION FILED DEC. 10, 1912.

1,067,061. Patented July 8, 1913.

Fig. 1.

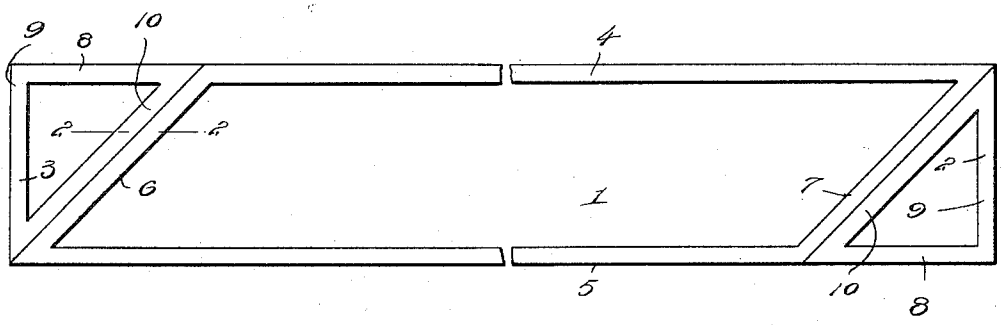


Fig. 2.

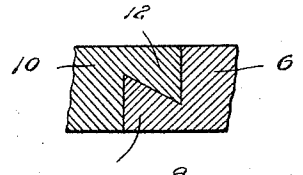
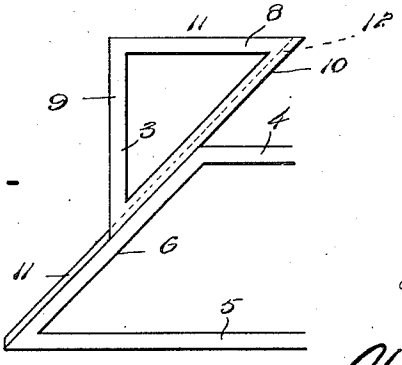


Fig. 3.



Witnesses

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STEEL FRAME OF RAILROAD-CARS.

1,067,061. Specification of Letters Patent. Patented July 8, 1913.

Application filed December 10, 1912. Serial No. 736,015.

To all whom it may concern:

Be it known that I, JOHN C. PILLSBURY, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Steel Frames of Railroad-Cars, of which the following is a specification.

This invention relates generally to an improvement in the steel frame of a railroad car to minimize the crushing effect on the car in the event of collisions.

The main object of the present invention is the construction of such framing in sections and connecting the sections so that they will maintain their normal relation under a direct pull or push on the car and separate on predetermined lines of movement in the event of a sudden blow or impact as in a collision.

The invention in its preferred form of details will be described in the following specification, reference being had to the accompanying drawing, in which:—

Figure 1 is a plan view representing the outline through a frame support for the car body. Fig. 2 is a section on line 2—2 of Fig. 1. Fig. 3 is a broken plan showing movement of the sections with respect to each other in operation.

In the drawings, the car frame is made up of a main or central section 1 and end sections 2 and 3. The main section includes side bars 4 and 5 connected by end bars 6 and 7, the latter being arranged parallel to each other but at an angle to the side bars. The angular relation of the end bars to the side bars is similar at diagonally opposite points of the frame, that is, the angular relation of the end bars 6 to the side bar 4 is similar to the angular relation of the end bars 7 to the side bars 5. The end sections 2 and 3 which are practically duplicates are made up of approximately right-angle, triangle sections having the side bar 8, and end bars 9 and 10, the end bar 9 forming in effect the end bar of the rectangular frame of the body, while the bar 10 is arranged at such an angle as to engage throughout its length with the adjacent end bar of the central frame section. As thus described, the frame for the car body is made up of three sections connected on lines inclined to the side and ends of the body. The length of the central section is designed to approximately correspond with the length of the main or passenger-receiving section of the car body while the end sections 2 and 3 of the frame in their main lengths are approximately similar to the length of the vestibule or platform sections of the car body. The respective end bars 7 and 10 and 6 and 10 are arranged for engagement, as shown in Fig. 2, wherein the end bars 6 and 7 are formed in their relatively outer edges to provide projections 11 throughout their lower halves the upper edges of which projections are inclined downwardly and inwardly toward the main section of the bar. The walls 10 are formed with complementary disposed projections 12, so that when said walls 6 and 10 and 7 and 10 are in contact they are connected by what may be termed a semi-mortise and tenon connection. This connection extends throughout the length of the respective end bars noted.

With a car constructed as described it is obvious that under a sudden impact meeting either of the end sections 2 or 3 the latter will be caused to move laterally on a diagonal line to direct the impact or colliding vehicle away from the main or passenger-carrying section of the car, this movement being facilitated by the previously described connection between the end and central sections of the frame. If desired, the end and central sections may be connected by bolts or the like which will provide for the ordinary traction uses of the car but which will readily yield under the sudden impact of collision for the purpose specified.

What is claimed is:—

A car including a body frame and vestibule supporting sections the contact surfaces of the body frame and vestibule supporting sections being arranged on lines at approximately 45° to the central longitudinal line of the car, said meeting surfaces being formed with coöperating offset projections serving to prevent independent downward movement of the vestibule supporting sections with relation to the body.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN C. PILLSBURY.

Witnesses:

EVA J. SCOTT,

CHARLES J. WESTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."