Aug. 24, 1926. 1,597,310

S. H. CAMPBELL

FLOOR CONSTRUCTION

Filed July 5, 1924

Fig.1.

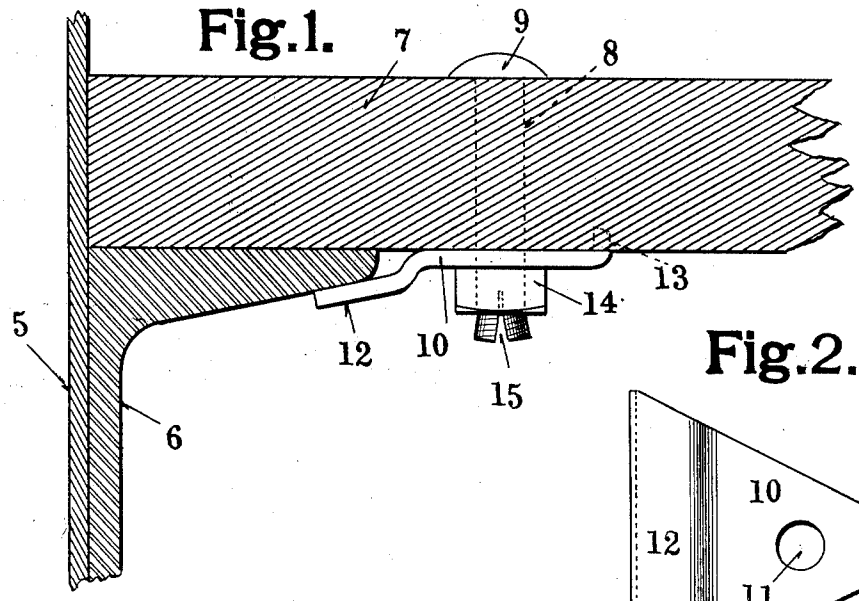


Fig.2.

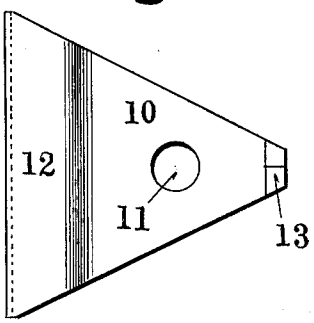


Fig.3.

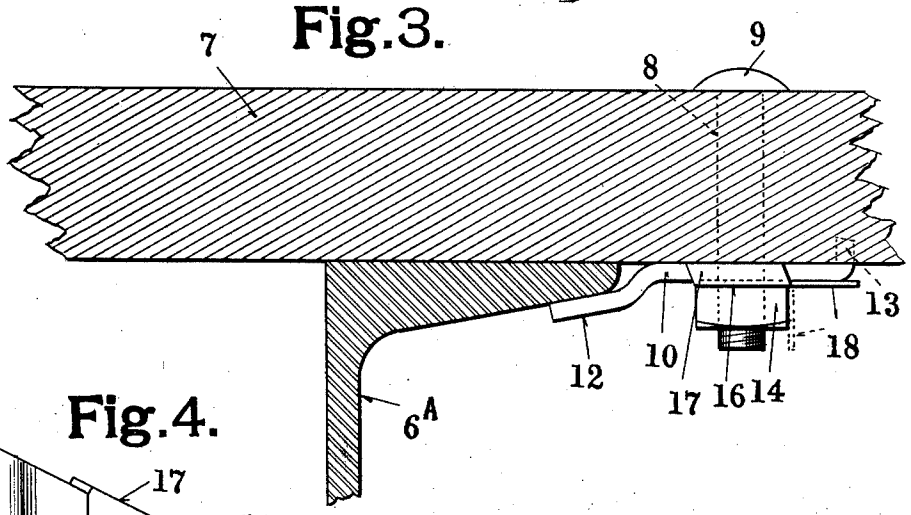
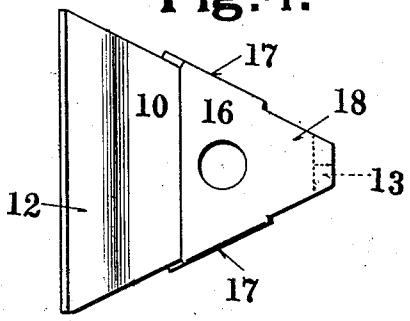


Fig.4.



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Patented Aug. 24, 1926. 1,597,310

UNITED STATES PATENT OFFICE.

STERLING H. CAMPBELL, OF ST. LOUIS, MISSOURI, ASSIGNOR TO WESTERN RAILWAY EQUIPMENT COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

FLOOR CONSTRUCTION.

Application filed July 5, 1924. Serial No. 724,284.

My invention relates to floor securing means for railway cars of the general type described in Pratt United States Patent No. 1,498,119, in which the securing means does not pass through the floor sill.

One object of the present invention is to provide means whereby the clip for holding the floor board to the sill will engage with the floor board to prevent rotation. Another object of the invention is to simplify the construction of the clip so that it may be easily manufactured from a minimum of material.

In the accompanying drawings which illustrate one form of floor construction made in accordance with my invention, together with a slight modification thereof, Figure 1 is a vertical section; Figure 2 is a detail view of the clip; Figure 3 is a sectional view showing a modification; and Figure 4 is a detail view of the clip and nut lock shown in Figure 3.

Referring first to Figures 1 and 2 of the drawings, 5 indicates the side of a steel car frame bearing against which is a longitudinal side sill 6 adapted to support the floor boards extending across the car, one of which is indicated at 7. Bolt holes 8 are formed in the boards 7 some little distance from the edge of the sill flange, as shown in Figure 1. Bolts 9 extend through these holes and on each of the bolts is placed a clip 10 provided with an opening 11 for the passage of the bolt. The clip 10, which is formed of sheet metal, is triangular in shape. It has one edge 12 bent down out of the plane of the body of the clip so as to contact with the lower face of the web of the sill while the body bears against the lower face of the floor board. The corner opposite the edge 12 is bent upwardly, preferably at right angles to the body, to form a tooth or prong 13 adapted to be forced into the board to prevent rotation of the clip. Owing to the form of the clip it not only requires a minimum of metal for its construction but can be cut from a strip of metal without waste and can be formed at a single operation. A nut 14 holds the clip in position and is locked by spreading the end of the bolt 9 which spreading is accomplished by means of a slot 15 formed in the end of the bolt.

Figures 3 and 4 show a slight modification of my device in which a different form of nut lock is used. In Figure 3 the floor board 7 is shown as resting on a center sill 6^a in place of the side sill 6. It will be understood, however, that both forms may be used in connection with either center or side sills. As shown in these figures the clip is in all respects the same as that shown in Figures 1 and 2, but a lock plate 16 is used to hold the nut 14. This lock plate is substantially triangular in shape, as best shown in Figure 4. It has a pair of wings 17 bent up against the edge of the clip and a wing 18 adapted to be bent down against one side of the nut after the latter has been tightened, as shown in Figure 3.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a device of the class described, the combination with a floor sill, of a floor board supported thereby, a clip engaging with the sill to retain the board, said clip having means engaging with the board to prevent its rotation relative thereto, and fastening means for securing the clip to the board.

2. In a device of the class described, the combination with a floor sill, of a floor board supported thereby, a clip bearing on the under surface of the sill, and fastening means for the clip, the clip having means engaging with the floor board to prevent rotation of the clip.

3. In a device of the class described, the combination with a floor sill, of a floor board supported thereby, a clip formed of sheet metal, said clip having a part bearing against the floor board and a part bent out of the plane of the first named part and engaging the sill, said clip having means engaging the floor board to prevent rotation, and fastening means for the clip.

4. In a device of the class described, the combination with a floor sill, of a floor board supported thereby, a clip formed of an angular sheet of metal bearing against both the floor board and the under surface

of the sill, said clip having a turned up corner forming a prong engaging the floor board to prevent rotation of the clip.

5. In a device of the class described, the combination with a floor sill, of a floor board supported thereby, a bolt passing through said board adjacent to the sill, a clip bearing on the under face of the sill and having a prong entering the board, and a nut on said bolt engaging the clip at a point intermediate the sill and prong.

In testimony whereof, I have hereunto set my hand this the 2nd day of July, 1924.

STERLING H. CAMPBELL.