March 8, 1927. 1,620,130

F. H. PIETZSCH.

FLOOR CONSTRUCTION

Filed July 5, 1924

Fig.1.

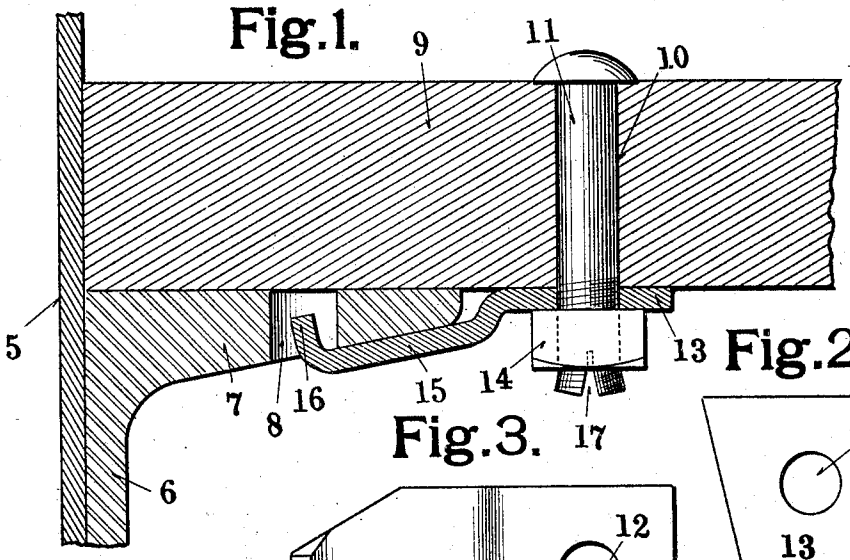


Fig.2.

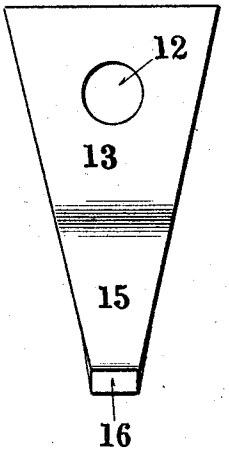


Fig.3.

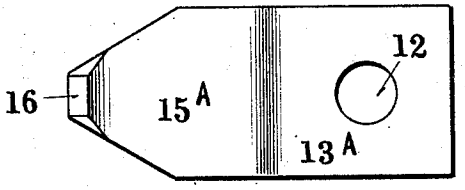
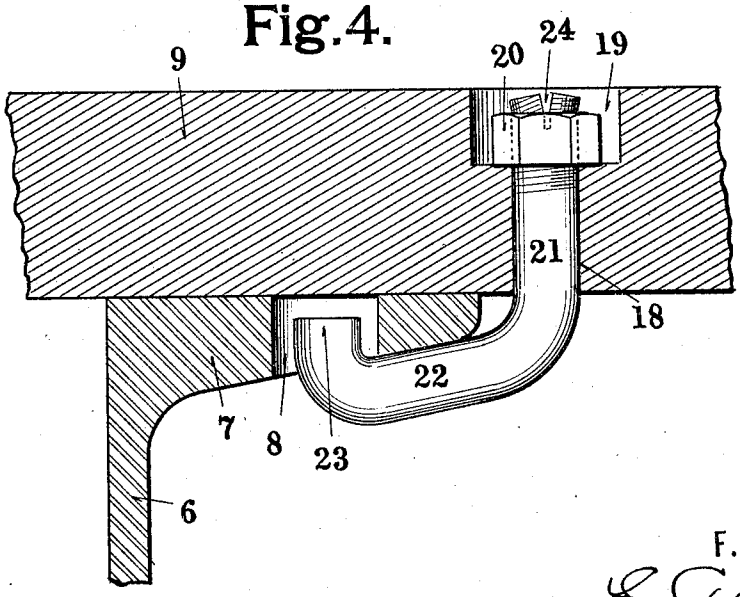


Fig.4.



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UNITED STATES PATENT OFFICE.

FRANK H. PIETZSCH, 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. 724,282.

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.

The object of the present invention is to provide a construction in which the clip or other fastening means engages with a recess in the under side of the flange of the sill thus preventing the rotation of the fastening means. While primarily applicable to sills which have been formed with passages for through bolts, it may also be used in connection with sills having specially formed recesses therein.

In the accompanying drawings which illustrate floor constructions made in accordance with my invention, Figure 1 is a vertical cross section; Figure 2 is a detail view of the clip; Figure 3 is a view showing a modified form of clip; and Figure 4 is a view similar to Figure 1 but showing a further modification in which the use of a clip is dispensed with.

Referring first to Figures 1 and 2, 5 indicates the side of a steel car frame against which bears the web 6 of a longitudinal side sill. The sill is provided with a flange 7 in the lower face of which is formed a recess 8. In the drawings I have shown this recess extending entirely through the flange, as will be the case when use is made of sills which have been punched for through bolts; it is not, however, essential that the recess extend through the flange. Resting on the flange and abutting against the side 5 is a floor board 9. Formed in the floor board at some distance from the edge of the sill flange is a bolt hole 10 through which passes a bolt 11. The bolt 11 also passes through an opening 12 in a clip 13, which clip is preferably triangular in shape as shown in Figure 2. A nut 14 on the bolt 11 holds the body of the clip against the floor board while the extending end 15 is bent down out of the plane of the body so as to extend under the flange 7 and terminates in an upwardly extending finger 16 which enters the recess 8 and thus prevents the rotation of the clip. The end of the bolt is preferably split, as indicated at 17, to form a nut lock.

In Figure 3 I have shown a slightly modified form of clip 13A. This clip is substantially rectangular in shape but in other respects is like the clip 13 being provided with a bolt opening 12 and finger 16 and having a part 15 bent out of the plane of the body of the clip.

Figure 4 shows a construction in which the use of a clip is dispensed with. The bolt hole 18 in this instance is positioned nearer the edge of the flange than the bolt hole 10 and terminates at its upper end in an enlargement 19 adapted to receive a nut 20. This nut 20 is applied to the threaded end of a bolt 21 passing through the hole 18 and having the lower end 22 bent over at an angle to correspond to the inclination of the under face of the sill flange. Terminating the bent over portion 22 of the bolt is an upward extension 23 which enters the recess 8 and performs the same function as the finger 16, hereinbefore mentioned. The upper end of the bolt 21 is preferably slotted as shown at 24 to form a nut lock.

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 support comprising a flange having a recess, of a floor board resting on said support, a bolt extending through said floor board and provided with a nut, and a lateral extension carried by said bolt, said extension projecting under the flange and having an integral upturned end entering said recess to prevent rotation of said extension relative to the bolt.

2. In a device of the class described, the combination with a support comprising a flange having a recess, of a floor board resting on said support, a bolt extending through said floor board, and a clip surrounding said bolt and held in position by a nut, said clip extending under said flange and provided with an integral upturned end entering the recess in said flange to prevent rotation of the clip relative to the bolt.

3. In a device of the class described, the combination with a flanged floor sill, the flange of said sill having a recess in its lower face, of a floor board supported on said sill, a clip bearing on said board and extending under said flange, an integral finger carried by said clip and projecting upwardly into the recess, and a bolt securing the clip to the board.

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

FRANK H. PIETZSCH.