July 14, 1953 K. E. ZEIDLER 2,645,167

FLOOR PROTECTING PLATE

Filed Nov. 23, 1948

Fig. 1

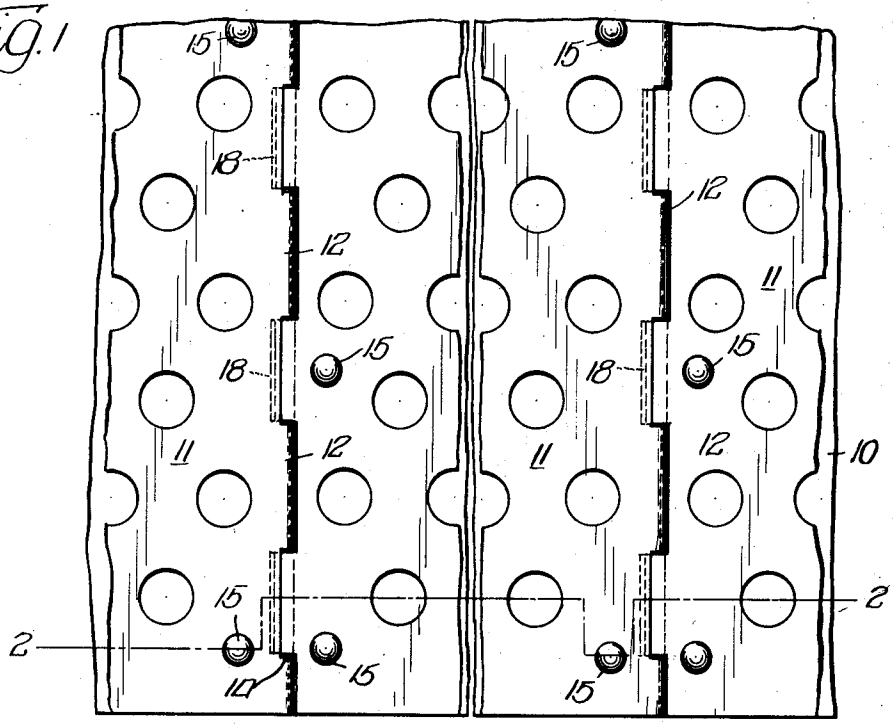


Fig. 2

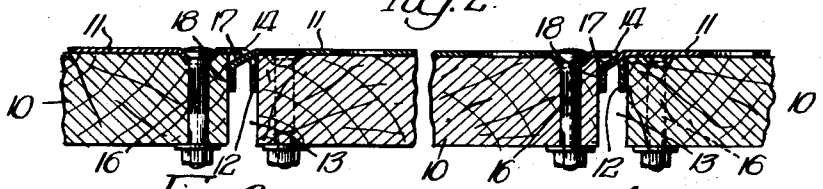


Fig. 3

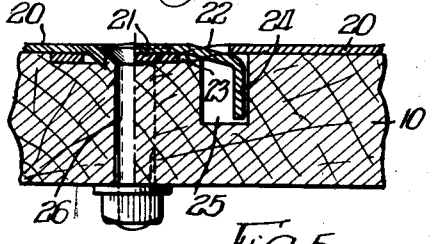


Fig. 4

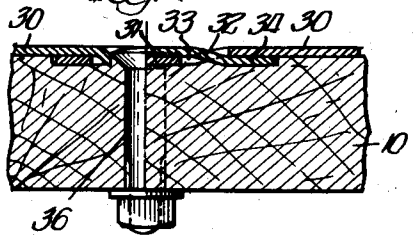
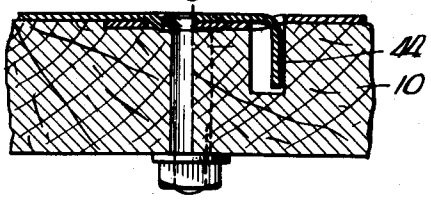


Fig. 5



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Patented July 14, 1953

2,645,167

UNITED STATES PATENT OFFICE

2,645,167

FLOOR PROTECTING PLATE

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Application November 23, 1948, Serial No. 61,637

2 Claims. (Cl. 94—13)

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This invention relates to improvements in railway freight cars and has for its principal object the provision of means for protecting the floors of such cars, which are subjected to great abuse by trucking the lading thereover and also by dragging the lading from one part of the car to another.

Another object of the invention is to provide a sheathing for said floors, which sheathing is composed of a plurality of sections extending from side to side of the car, overlying the floor thereof, and interlocking with each other along their abutting or meeting sides.

A further object of the invention is to provide an interlocking joint for said sections of sheathing so that when joined in said interlocking relationship a movement of said sections toward each other will insure that said sections will occur in substantially the same plane, and that each edge will tend to hold the other down, resisting the tendency to curl upwardly due to the passing of heavy truck loads thereover.

Still other objects and advantages of the invention will appear in the following description thereof.

Referring now to the accompanying drawing forming part of this application and wherein like reference characters indicate like parts:

Figure 1 is a plan view of part of a railway car floor showing my improved floor protection applied thereto.

Figure 2 is a section on the line 2—2, Figure 1, parts being shown in elevation.

Figure 3 is a fragmentary section, similar to Figure 2 of a modified form of joint.

Figure 4 is a fragmentary section, similar to Figure 2 of a further modified form of joint.

Figure 5 is a fragmentary section, similar to Figure 2 of a still further form of joint.

In the drawings the usual wooden car flooring 10 is shown, which extends from side to side of the car, and which may be of any desired type of lumber.

My preferred form of the invention, shown in Figures 1 and 2, comprises a plurality of like metallic plates 11, along one side margin of each of which is provided a downturned flange 12, extending the entire length of the floor boards 10, which boards are either laid with a space 13 between adjacent boards underlying adjacent plate margins, or a slot cut therein, to receive said flange 12. Through the rounded corner between the flange 12 and body portion of plate 11 are formed a plurality of spaced slots 14, inwardly of which are formed a plurality of spaced alined

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countersunk holes 15, through which extend bolts 16 for holding the plates to the floor 10 of the car. Along the other side margin of each plate are formed a plurality of alined spaced tongues which extend obliquely from the plane of the plate 11 for a short distance as of 17 and then turned at right angles thereto as at 18.

The width of slots 14 is greater than the thickness of the material forming the tongue 18, so that when a plate 11 has been applied to the floor and bolts 16 tightened, the next adjacent plate may be applied by inserting parts 18 vertically through slots 14 until body part of said adjacent plate 11 rests upon flooring 10, when a movement of said adjacent plate 11 toward the already applied plate, will cause the oblique portions 17 to slide against one side edge of slots 14 and insure the margin of said adjacent plate 11 to be maintained in plane with said applied plate. At this time bolts 16 may be applied to hold said adjacent plate down in plane with the other plates.

In the modification shown in Figure 3, each floor protecting plate 20 is provided along one side with a margin 21, offset approximately the thickness of the material so as to underlap the margin of an adjacent plate 20. The material between the body part of plate 20 and margin 21, is inclined and provided with spaced slots 23, corresponding to the slots 14 of the first described modification. Along the other sides of each plate 20 are provided a plurality of alined spaced tongues each of which extends obliquely from the plane of the plate 20 for a short distance as at 22 and is then turned at right angles to the plane of the plate as at 24, and extends within a longitudinal slot 25 within the flooring 10. These tongues 24 are spaced apart so as to coincide with the spacing of the slots 23. Thus when one plate 20 is applied over the flooring, tongues 24 of the next adjacent plate may be inserted vertically through slots 23 and then the plate moved toward the already applied plate when the inclined portions 22 will engage the sides of slots 23 and form an interlock. A series of bolt holes are provided in the adjacent margins of each pair of plates through which, and the flooring, may extend bolts 26 to hold the plates in position on the flooring, and the interlocking feature maintains the margins of the plates against turning upwardly due to trucks moving thereover, or moving the lading from place to place within the car.

In the modification shown in Figure 4, plates 30 each has one side margin 31 formed identically with the margin 21 of plate 20 in Figure 3, and with the spaced slots 33 formed in the inclined

portion between body part of plate 30 and margin 31. Along the other sides of each plate 30 are provided a plurality of spaced tongues each of which extends obliquely from the plane of the plate a short distance as at 32 and then parallel with the plane of the plate as at 34, underlapping the margin of an adjacent plate. In this modification when one plate 30 has been applied to the floor, which is cut out to receive the margins 31 and 34, the tongued side of an adjacent plate is slid on the flooring toward the applied plate so that the tongues 34 pass through openings 33 and underlap the plate 30. Thus both the tongue 34 and margin 31 underlap their respective adjacent plate. In this modification too, the margins of each plate are provided with registrable holes through which and the flooring 10 bolts 36 may be inserted to hold the parts together.

The modification shown in Figure 5 is identical with that shown in Figure 3 excepting that the spaced tongues 44 are turned at right angles to the plane of the plate, there being no inclined or oblique portion thereof such as shown at 22 in Figure 3. Otherwise the modifications of Figures 3 and 5 are the same.

It will be noted that in all modifications when the tongues are inserted through the slots, a pushing together sidewise of adjacent plates will cause an inclined portion of one plate to engage the edge of a slot in an adjacent plate and hold the plates in the same plane at their margins.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A protecting plate for a railway car floor, comprising a body portion, a flange along one side morgin of said body portion, forming a rounded corner between the flange and said body portion, spaced slots in said rounded corner, spaced tongues along the opposite side margin of said body portion and being connected to said body portion by a portion inclined thereto, whereby the inclined portions of said tongues bear against the upper edges of corresponding slots in an adjoining plate when inserted therein and moved laterally towards said adjoining plate to maintain said plates in a predetermined plane.

2. A protecting plate for a railway car floor, comprising a body portion, a downturned flange along one side margin of said body portion, forming a rounded corner between the flange and said body portion, said flange terminating in a portion substantially normal to said body portion, spaced slots in said rounded corner, spaced tongues along the opposite side margin of said body portion, each terminating in a portion substantially normal to said body portion and being connected to said body portion by a portion inclined thereto, whereby the inclined portions of said tongues bear against the upper edges of corresponding slots in an adjoining plate when inserted therein and moved laterally towards said adjoining plate to maintain said plates in a predetermined plane.

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