

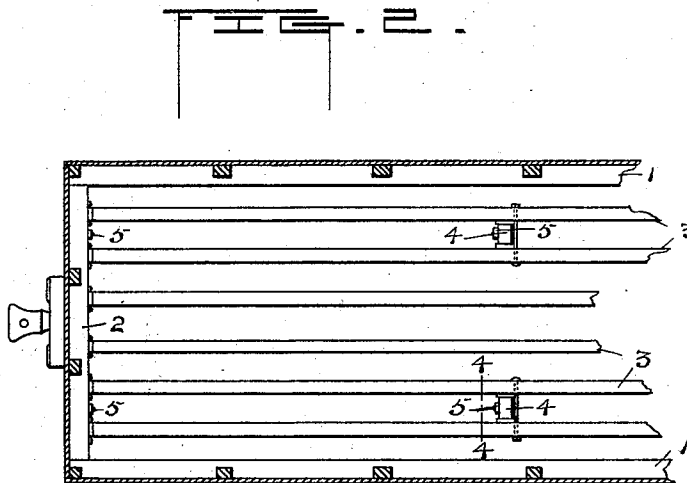
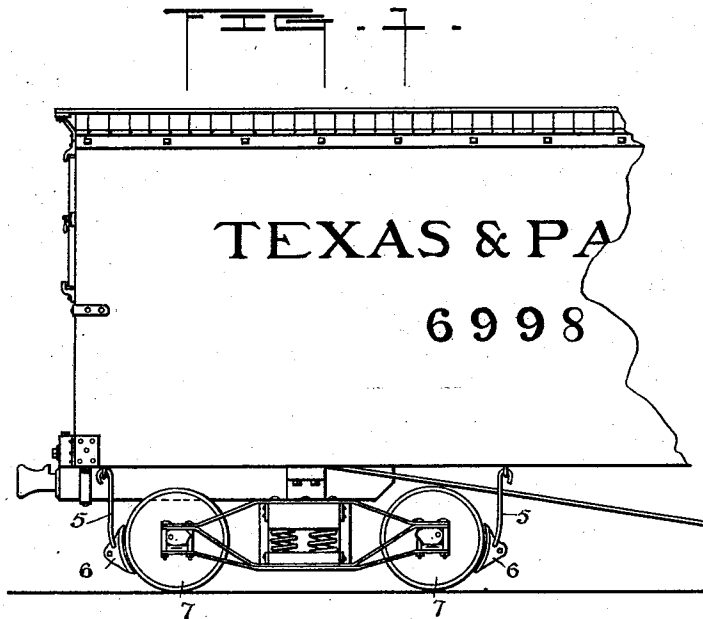
(No Model.)

2 Sheets—Sheet 1.

W. E. COFFIN.
CAR CONSTRUCTION.

No. 531,510.

Patented Dec. 25, 1894.



Witnesses

Arch. M. Catlin.
Frances H. Catlin

Inventor

Walter E. Coffin
by Ruf. R. Catlin
Attorney

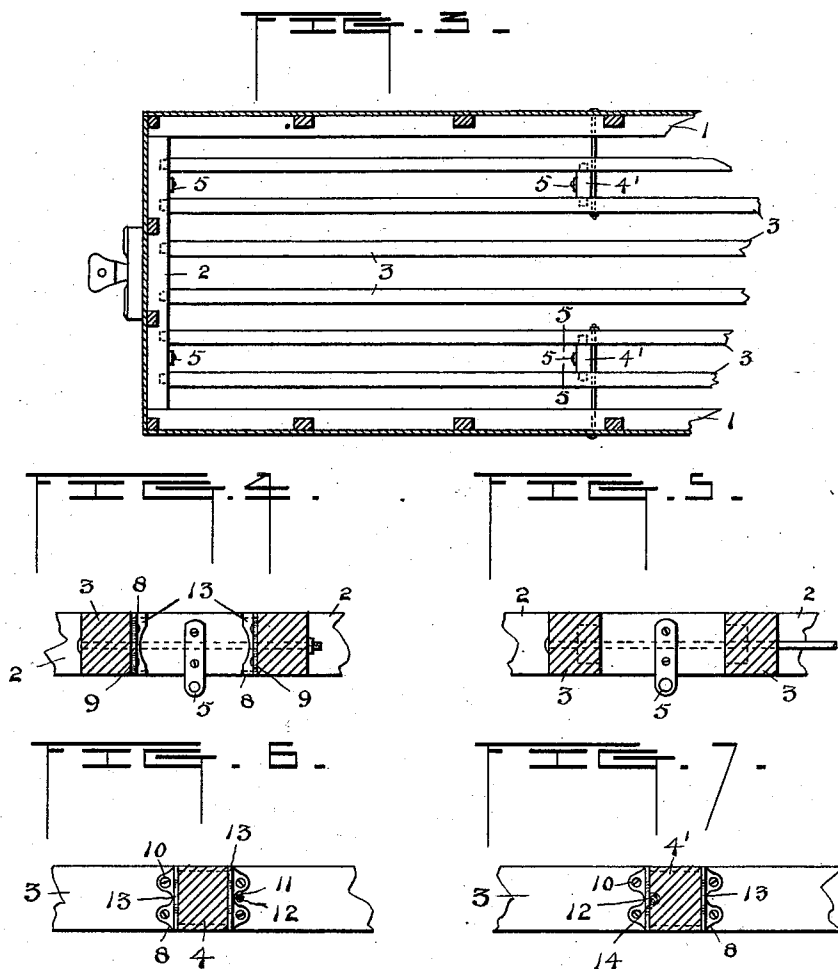
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UNITED STATES PATENT OFFICE.

WALTER E. COFFIN, OF MARSHALL, TEXAS.

CAR CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 531,510, dated December 25, 1894.

Application filed May 19, 1894. Serial No. 511,782. (No model.)

To all whom it may concern:

Be it known that I, WALTER E. COFFIN, a resident of Marshall, in the county of Harrison and State of Texas, have invented certain new and useful Improvements in Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention relates to car floors and means for suspending brake beams therefrom.

It has for its object to provide a construction which will permit the speedy and easy removal of brake supporting blocks or equivalent parts from the lower or floor frame of a car and the substitution of others without displacement or injury of other parts of the car and which will tend to obviate wear, breaking and decay; and it consists in the matter hereinafter described and particularly pointed out.

In the accompanying drawings Figure 1 is a partial side elevation. Fig. 2 is a partial section just above the floor sills. Fig. 3 is a similar view showing the construction heretofore used. Fig. 4 is a section on line 4—4 of Fig. 2. Fig. 5 is a section on line 5—5 of Fig. 3. Fig. 6 is a section of the block; and Fig. 7 is a section of the same showing a modified arrangement of the tie rod.

Numerals 1 denotes the long sills and 2 the short sills of a car, and 3 the stringers or intermediate long sills.

Brake supporting blocks are indicated by 4 and brake hangers by 5. The brakes are indicated by 6 and car wheels by 7.

Heretofore it has been customary to provide brake supporting blocks such as 4' (see Fig. 3) with tenons, and to enter these in mortises in the sides of the stringers, the blocks, stringers and outside sills being bolted together and the stringers connected by tenon and mortise with the transverse end sills as indicated in said Fig. 3. In some cases however the brake hangers have been connected directly with the stringers or sills. In such prior construction the sills are weakened by the mortises and the blocks or sills are liable to split at the shoulders of the tenons, and owing to the unequal cutting the wood is rendered more liable to warp. The tenons also wear in their mor-

tises and sometimes turn in them. The mortises also are adapted to receive and hold moisture and occasion rotting; and further to remove a brake supporting block or sill it is necessary to spread the floor to remove the tenons which requires that the lining, sheathing or flooring shall be removed involving not only much labor but considerable injury to the wood work.

By my improvement the brake hanger is supported by a block or sill so joined to adjacent parts that it can be removed without spreading the frame or removing any part of the car covering or lining. For this purpose holders 8 preferably of cast malleable iron are attached by screws or bolts to the sills or stringers. These holders have a flat base 9 provided with holes 10 to receive the screws or bolts whereby they can be fastened to the wood, and also provided with other holes 11 to receive a bolt 12 that passes entirely through one or more sills or stringers.

13 denotes a flange formed upon the base 9 and inclosing a pocket to receive the end of the timber. The pocket is made as large as practicable and preferably with a transverse area about equal to that of the end of the timber in order to utilize the full size and strength of the latter and to avoid the danger of splitting occasioned by tenons and also the liability of season-cracking, shrinking or warping incident to the cutting of partially seasoned wood.

The above described holders can be applied to the ends of a block or similar piece and the whole slipped into position between two sills and the holders secured in position by lag screws or bolts and the sills then bolted together. From a block or sill thus secured the brakes are suspended in the usual manner and substantially as illustrated. In case it is desired to substitute a new block or sill it is only necessary to unfasten the holders whereupon they can be pushed out and others substituted, the same holders and the same holes in the wood work being utilized for the new timber. Such renewal will be much less frequently required owing to the increased durability incident to the improvement, and when required can be effected more speedily and without the spreading of the car frame

and the removal of linings, flooring and the like which removal is a necessary antecedent of the spreading heretofore required.

5 The bolt 12 is placed near the flange and in some cases on the inside of it, in which arrangement a groove 14 is provided in the block to receive the bolt. It will be observed
10 that the weight and pull of the brake is sustained in part by said bolts through the bearing of the block or of its holders upon the same. These bolts 12 also being situated close
15 to the side of the block give it support laterally and tend to decrease danger of its displacement under accidental strains by this situation as well as by preventing the spreading
20 of the sills. I provide for placing this bolt 12 against the block by forming holes or recesses 11 in the flanges of the holder, as shown in Fig. 6 or the bolt may pass through
25 on the inside of the holder pocket as indicated at 14 in Fig. 7.

I am aware that it is not new to connect cross pieces, beams and the like, to side pieces,
sills or plates by means of angle irons or holders
25 having pockets, and I do not make claim to such devices, but only to the special combination hereinafter pointed out of which combination the particular holder constitutes
30 a part.

Having thus described my invention, what
I claim is—

1. In combination in a car floor frame, a block or the like removably secured between two sills, detachable holders provided each
35 with a flange inclosing a pocket and with a base having bolt holes for securing said holders to the sills, said base also provided with
40 holes or recesses adjacent the pocket wall for bolts 12, said bolts, and a hanger supported by the block substantially as set forth, whereby the block is sustained and held both
laterally and longitudinally and whereby the supporting timber can be removed without spreading the car floor frame.

2. In a car floor frame the combination of
45 a block or the like, a supporting holder having a pocket surrounded by a flange and fitted to the end of the block, said holder being provided with a flat base having holes to receive
50 screw bolts for the attachment of the holder to the frame and having a hole or recess in the base near its flange to receive a
55 tie bolt, such as 12, said tie bolt, and the sills or timbers tied thereby, all substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WALTER E. COFFIN.

Witnesses:

EATON J. FIELD,

BLANCHE H. GWYNNE.