

1,126,345.

2 SHEETS--SHEET 1.



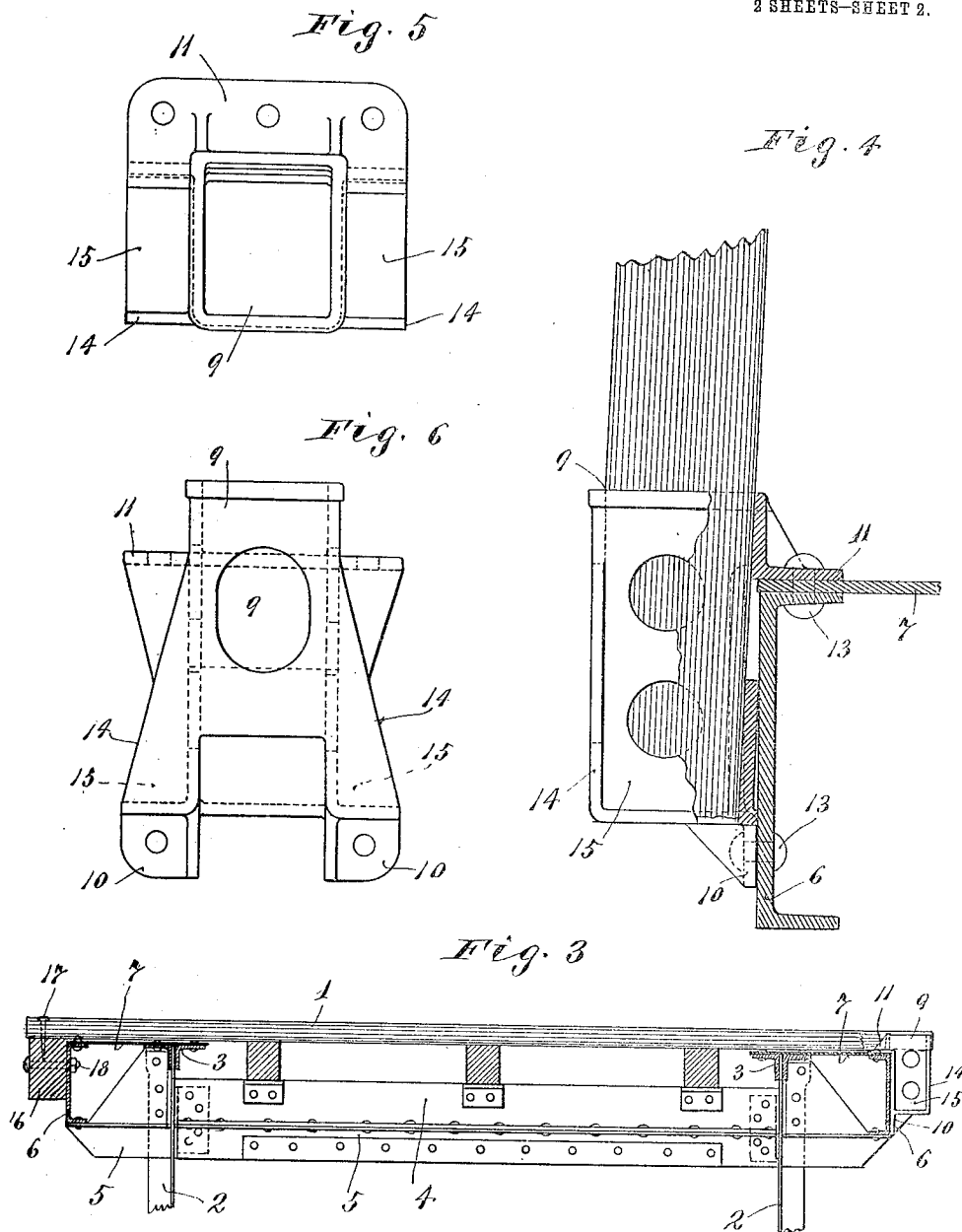
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 FLAT CAR UNDERFRAME STRUCTURE.
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Patented Jan. 26, 1915.

2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

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FLAT-CAR-UNDERFRAME STRUCTURE.

1,126,345.

Specification of Letters Patent.

Patented Jan. 26, 1915.

Continuation in part of application Serial No. 808,679, filed December 26, 1913. This application filed October 14, 1914. Serial No. 866,560.

To all whom it may concern:

Be it known that I, JOHN C. BARBER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Flat-Car-Underframe Structures; 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 appertains to make and use the same.

My present invention relates to flat car underframe structures for railway cars, and is particularly directed to the provision of an improved arrangement of stake pockets and associated frame members.

The present case is filed as a continuation in part of my pending application, S. N. 808,679, filed December 26, 1913, and entitled "Underframe structure for cars."

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings: Figure 1 is a side elevation with some parts broken away, some parts sectioned, and some parts in diagram only, showing a flat car designed in accordance with my invention; Fig. 2 is a plan view of the parts shown in Fig. 1, some portions being broken away; Fig. 3 is a transverse section taken on the line $x^3 x^3$ on Fig. 2; Fig. 4 is a vertical section taken approximately on the line $x^4 x^4$ on Fig. 1, some parts being broken away; and the parts being shown on a larger scale than in Fig. 1; Fig. 5 is a plan view of the stake pocket shown in Fig. 4; and Fig. 6 is an elevation looking at the outer side of the stake pocket.

The floor structure proper 1, is preferably made of wood, and the stake pockets are preferably cast, while the other parts of the underframe structure are preferably of commercial steel. The main side sills or girders are designed to be located over the truck side frames, and may be constructed in various ways, but are preferably made up of vertically disposed steel plates 2, and upper and lower reinforcing angles 3 rigidly secured thereto.

The body bolsters are not shown, but may be of the character disclosed in my said pending application. At suitable points longitudinally of the car, the side sills are

connected by transverse cross beams, as shown, made up of upper and lower channel beams 4 and 5, rigidly secured together and to the said side sills, with the ends of the lower bars 5 projected through openings in the webs of the said side sills. The projecting ends of the bars 5 serve to support supplemental sills 6 that are located outward of the main side sills and extended parallel therewith, with their upper flanges horizontally alined on the upper flanges of the main sidesills. These supplemental sills 6 are preferably in the form of steel channels set with their flanges turned inward. Furthermore, the said supplemental sills 6 are preferably extended the full length of the car body, and steel cover plates 7 of approximately the same length are secured by rivets to the upper flanges thereof, and to the upper flanges of said main sills. At their ends, the main and supplemental side sills are connected by transverse end sills 8, which may be of any suitable construction, so far as this invention is concerned.

At suitable intervals along the sides of the underframe structure, the metallic (preferably cast) stake pockets 9 are secured to the outer sides of the supplemental sills 6. These stake pockets are preferably cast with integral sill-engaging flanges 10 and 11, the former of which bears against the outer sides, and the latter of which rests upon the plates 7, and both of which locks are rigidly secured to the said side sills by rivets 13. These stake pockets 9, at their upper extremities, terminate approximately flush with the tops of the floor boards 1, and at their outer faces, terminate approximately flush with the outer edges of the said floor structure, so that they cannot be engaged and torn off. At their front and rear sides, the stake pockets 9 are formed with flanges 14 that are U-shape in elevation, and form pockets 15 that are adapted to receive the ends of wooden stringers, or floor nailing strips 16, the ends of which are preferably slightly reduced in width, so that the outer faces of the said stringers lie flush with the outer faces of the said flanges 14 and with the outer faces of the said pockets 9 (see particularly Fig. 2). The floor boards 1 are adapted to be secured by the nailing strips 16 by suitable nails or spikes 17, (see Fig. 3).

The pockets 15 formed by the flanges 14, are open at their tops so that the nailing strips may be dropped down into the same before the floor boards are applied. The
5 said nailing strips are adapted to be further secured in the said pockets and to the supplemental sills 6, by means of bolts 18 passed therethrough, substantially as shown in Fig. 3.

10 What I claim is:

1. In a car underframe structure, stake pockets secured at the sides thereof, and provided with seats at front and rear, and nailing strips having their ends held in the
15 seats of said stake pockets.

2. In a car underframe structure, the combination with metallic side sills, of metallic stake pockets rigidly secured to and projecting outward from said side sills, nailing strips longitudinally alined with said
20 pockets and having their ends seated in the sides thereof, and a floor secured to said nailing strips and covering the same.

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

JOHN C. BARBER.

Witnesses:

T. L. BARBER,
MABEL G. LAW.

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