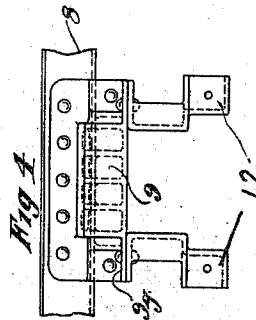
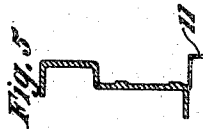
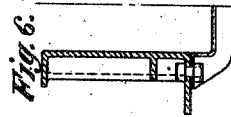
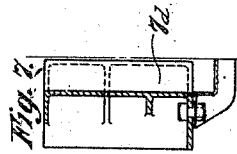
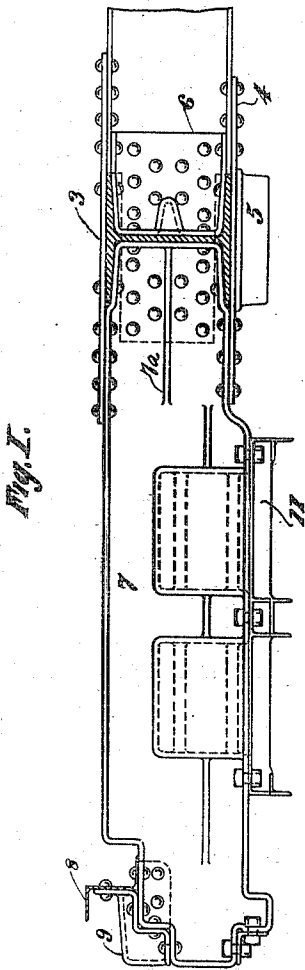


J. M. ROHLFING.
CAR UNDERFRAME.
APPLICATION FILED JULY 17, 1911.

1,061,501.

Patented May 13, 1913.

2 SHEETS—SHEET 1.



Witnesses.

Robert Scheibler
James J. Cooper

Inventor

Johann M. Rohlfing.

By

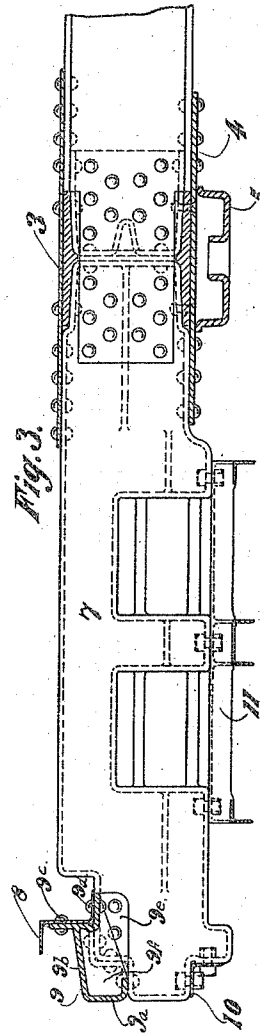
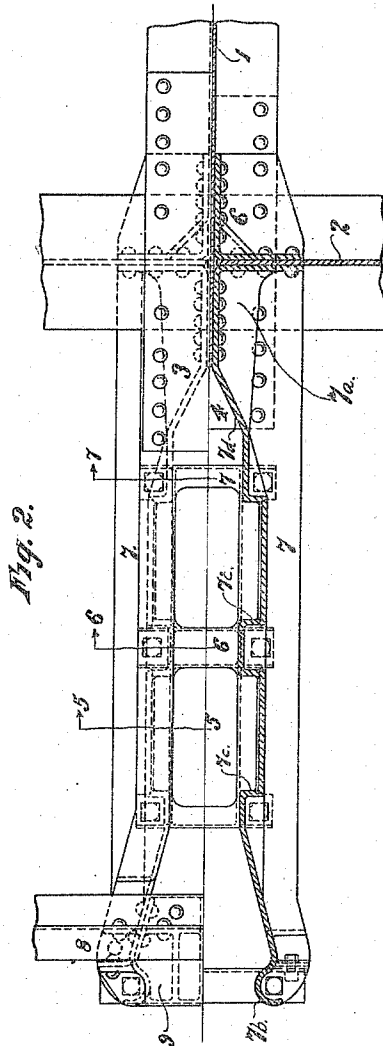
J. R. Cornwall Atty.

J. M. ROHLFING.
 CAR UNDERFRAME.
 APPLICATION FILED JULY 17, 1911.

1,061,501.

Patented May 13, 1913.

2 SHEETS—SHEET 2.



Witnesses.
 Robert Scheibler.
 James J. Cooper.

Inventor
 John M. Rohlfing.
 By J. R. Cornwall
 his Atty.

UNITED STATES PATENT OFFICE.

JOHN M. ROHLFING, OF ST. LOUIS, MISSOURI, ASSIGNOR TO AMERICAN CAR AND
FOUNDRY COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY.

CAR-UNDERFRAME.

1,061,501.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed July 17, 1911. Serial No. 638,945.

To all whom it may concern:

Be it known that I, JOHN M. ROHLFING, a citizen of the United States, residing at the city of St. Louis and State of Missouri,

5 have invented a certain new and useful Improvement in Car-Underframes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and
10 use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view of my improved car underframe. Fig. 2 is a top plan view partly in horizontal section. Fig. 3 is a horizontal vertical sectional view. Fig. 4 is a front elevational view. Fig. 5 is a sectional view taken on line 5—5, Fig. 2. Fig. 6 is a sectional view on line 6—6, Fig. 2. Fig. 7 is a sectional view on line 7—7, Fig. 2.

This invention relates to a new and useful improvement in underframes for cars, the object being to construct an underframe in
25 which the draft sills are preferably made of castings connected at their inner ends to the bolster and to the forwardly extending web of the center sill which protrudes through the bolster, the outer end of said draft sills
30 being connected to the end sill and interlocked with a striking plate, all of which will hereinafter be described and pointed out in the claims.

In the drawings: 1 indicates the center sill and 2 the bolster member, both of these members being of commercially rolled forms of I or H beams, the web of the bolster being cut out as shown in Figs. 2 and 3 and the top and bottom flanges of the center sill
40 being cut away as shown in said figures, whereby the vertical web of the center sill extends forwardly through the opening in the bolster. By this construction the top and bottom flanges of the bolster and center
45 sill members are flush and afford an alining surface for the attachment of the top cover plate 3 and the bottom cover plate 4 to which latter the center bearing 5 may be secured. Suitable connection members 6 are
50 arranged at the junction of the inner face of the bolster member and center sill.

7 are castings constituting draft sills, the rear or inner ends of which are provided with vertical walls abutting against the
55 front face of the vertical web of the bolster

member, said wall being reinforced by a strengthening web 7^a. The vertical webs or walls of these castings at 7^b are preferably rounded at their forward ends to provide striking points for the draw bar of the coupler, said walls converging inwardly toward each other forming a flaring opening in which the draw bar may swing. Suitable shoulders 7^c are in the inner faces of these draft member castings for cooperation with the follower plates of the draft rigging, said vertical walls extending parallel for some distance beyond which they again converge, as indicated at 7^d where they are connected by suitable rivets to the forwardly extending tongue of the center sill. The draft sill members are provided with outwardly extending flanges at their upper and lower edges said flanges preferably continuing marginally around the front ends of said members, so as to provide attaching points for the end sill 8 which may be a commercially rolled Z bar as shown and a buffer block or striking plate casting 9.

The upper edge of the draft members preferably lies flush with the upper edge of the bolster and center sill members for the attachment of the top cover plate, and the rear lower edge of said draft sill members lies flush with the bolster and center sill members for the attachment of the bottom cover plate. The upper forward edges of the draft sill members are reduced or cut away to receive the end sill 8 which is riveted to the flanges thereof. Beyond the point of attachment of the end sill the upper edges of said draft sill members are further reduced to accommodate the buffer block or striking plate 9 which is secured to the end sill 8 to stiffen the same and which extends forwardly to a point practically coincident with the rounded forward ends of the draft sill members. This striking plate is preferably in the form of a casting comprising a front wall 9^a, a top wall 9^b, a vertical flange 9^c connected to the end sill, a horizontally disposed flange 9^d arranged between the forward ends of the draft sill members so as to space them apart, end walls 9^e which are preferably riveted to the inner faces of the draft sill members and interiorly arranged strengthening webs 9^f which are connected to the several members of the walls and flanges as shown to reinforce them. The ends of the striking plate are provided with horizontally

disposed flanges 9^a lying immediately above the rounded forward ends of the draft members to which they are connected by a rivet, as shown. The lower forward ends of the draft members are cut away, and the inset portions are extended laterally beyond the vertical webs of the draft sill members as shown in Fig. 4 at 12 for the accommodation of a carry iron 10 in the form of an angle secured in position by suitable bolts, the bottom flange of the draft sill members being deflected to form a pocket to accommodate the head (or nut) on the horizontally disposed bolt.

11 indicates a slider casting bolted to the underside of the draft members which not only serves to space said members apart, but also to support the draft rigging in position. While I have shown my improved draft sill members as being designed to take one type of draft rigging in which spring followers abut against shoulders on the inner faces of the draft members, and which thereby enables me to use horizontally disposed reinforcing webs 7^a to brace said shoulders, it is obvious that the draft members could be formed to accommodate different styles of draft rigging without departing from the nature and principle of my invention.

It will be noted that the draft sills converging at their rear ends and attached directly to the vertical web of the center sill form a rigid structure which is well able to resist the buffing and pulling strain to which car underframes are subjected. Furthermore, casting 11 spaces the draft sills apart

and holds them rigid at points intermediate the bolster and end sill. Not only does the end sill itself serve as a spacing medium, but the striking plate or buffer block acts as a spacing device and serves to reinforce the connection of the end sill and the underframe.

What I claim is:

1. In a car underframe, the combination of a bolster member whose vertical web is provided with an opening, a center sill member having its top and bottom flanges cut away and whose vertical web extends through the opening in said bolster member and draft sill members secured to the protruding end of the vertical web of said center sill.

2. In a car underframe, the combination of a bolster member, a center sill member made up of light commercially rolled sections, the vertical web of said bolster member being provided with an opening and the top and bottom flanges of said center sill member being cut away whereby the vertical web of said center sill member extends through the opening in the bolster member, and connection members for securing said parts together.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this eleventh day of July, 1911.

JOHN M. ROHLFING.

Witnesses:

JAMES J. COOPER,
P. M. BEARD.