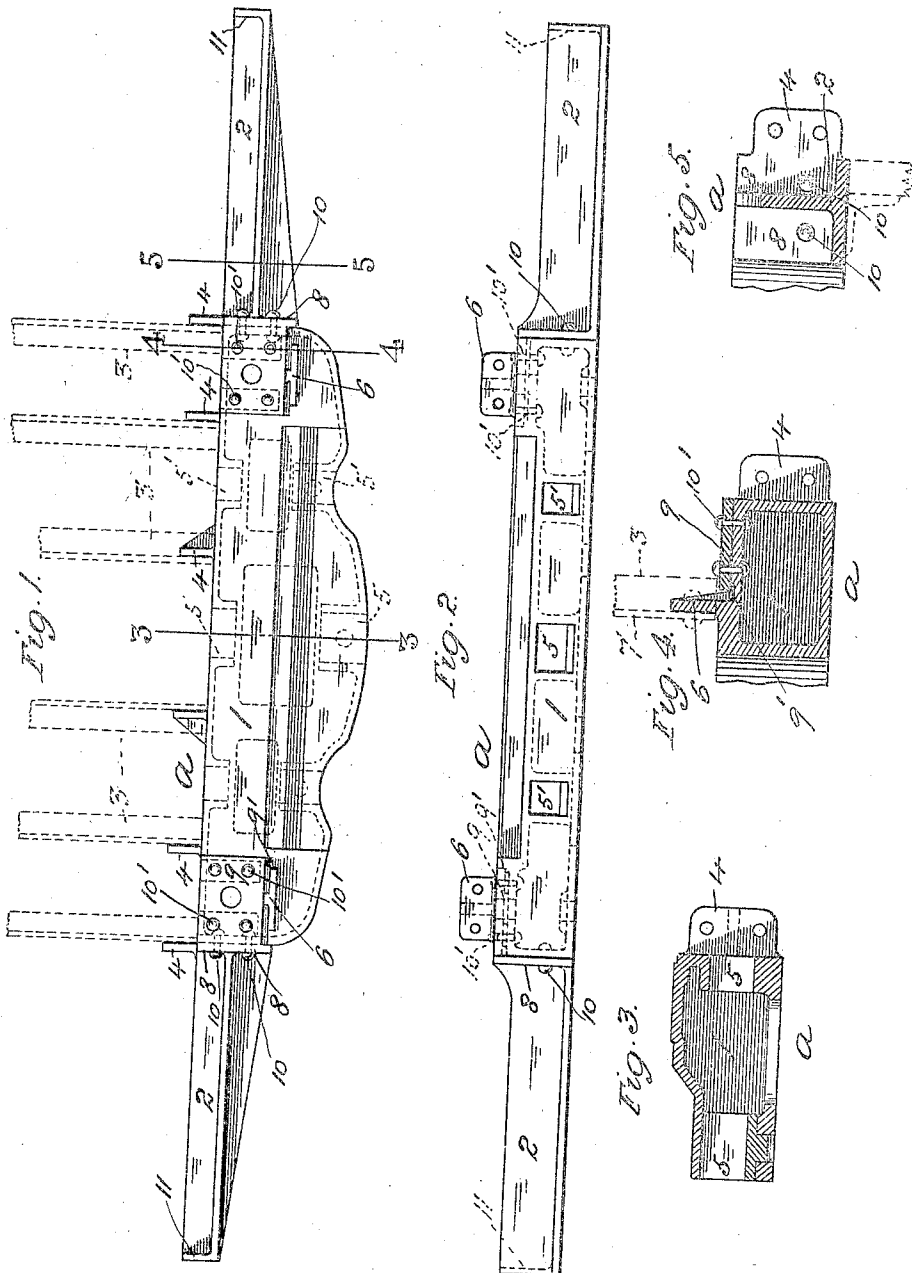


C. F. FREDE.
CAR UNDERFRAME.
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954,026.

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WITNESSES
G. H. Maynard
Hazel C. Clayland

INVENTOR
Charles F. Frede
By *Edward W. Furell*
His Atty

UNITED STATES PATENT OFFICE.

CHARLES F. FREDE, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CAST STEEL PLATFORM COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF DELAWARE.

CAR-UNDERFRAME.

954,026.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES F. FREDE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Car-Underframes, of which the following is a specification.

My invention relates particularly to a metallic buffing end sill for a car underframe, in which the end portions of the sill are separable from its middle portion, and my invention has for its object principally, to increase the strength of the middle portion, and to obtain a more rigid attachment of the end portions thereto.

It consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification, whereon,

Figure 1, is a top plan view of my improved buffing end sill; Fig. 2, a front elevation thereof, and Figs. 3, 4, and 5, vertical transverse sections thereof to enlarged scale, on lines 3, 3, 4, 4, and 5, 5, respectively, in Fig. 1.

Like letters and numerals of reference denote like parts in all the figures.

a represents my improved metallic buffing end sill which is preferably composed of cast steel and consists of a middle buffing portion 1, and two end portions 2, separately constructed from and adapted to be removably fixed to the middle portion 1 as hereinafter more particularly described. The middle portion 1, which extends lengthwise for a suitable distance on each side of the longitudinal center of the car, is preferably box-shaped in cross section and closed at each end, having its maximum width at the said center and thence reduced in width toward each end thereby obtaining a strong and rigid structure best adapted for resisting and transmitting buffing and end shock uniformly to the middle and adjacent longitudinal members 3 (indicated by dotted lines in Fig. 1) of the car underframe, which in the present case butt endwise against the rear side of the sill *a* having rearwardly projecting brackets 4 to which the members 3 are fixed.

Transversely through the middle portion 1 are formed the center and side openings 5 and 5' respectively, for the passage and play of the buffing-stems (not shown) in the usual well-known manner.

On the middle portion 1 adjacent to each end thereof at a suitable distance from its rear side is formed preferably integral therewith, an upright bracket 6 which is adapted for the attachment thereto of an upright post (indicated by dotted lines in Fig. 4) 7 of the car superstructure.

Each end portion 2 of the sill *a* may be of any suitable shape, preferably, in the present case when assembled, of an inverted T-shape in cross section for the support and attachment thereto of the wood filling (not shown) to which the end framework of the car vestibule is attached, the inner and preferably wider end of the end portion 2 being closed by an upright web 8 which is adapted to bear at its outer side against the corresponding end of the middle portion 1, the web 8 having an outwardly projecting horizontal flange 9 at right angles thereto adapted to fit preferably within a correspondingly shaped recess 9' formed therefor in the top of the middle portion 1 (preferably behind the upright brackets 6 thereon for the posts 7), to which the web 8 and flange 9 are fixed by rivets (or bolts) 10 and 10' respectively, whereby any downward stress on the end portion 2 will cause it to bear pivotwise against the lower part of the upright end wall of the middle portion 1 and so produce shear stress on the vertical rivets 10' through the flange 9. The outer end of each end portion 2 is preferably closed by an upright web 11 to which in the case of a blind end car the outer longitudinal members (not shown) of the underframe may be fixed to the sill *a*.

It is here noted that the attachment of each end portion 2 to the middle portion 1 is practically effected by the vertical rivets 10' through the flange 9, the horizontal rivets 10 through the web 8 being auxiliary only for insuring a close fit of the web 8 against the upright end of the middle portion 1.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In a car underframe, a metallic end sill having a middle portion box-shaped in cross section and closed at each end, and an end portion adapted to be fixed to the middle portion.

2. In a car underframe, a metallic end sill having a middle portion box-shaped in cross

section and closed at each end, and an end portion, and means subject to shear stress only for fixing the said portions together.

3. In a car underframe, a metallic end sill having a middle portion and an end portion of an inverted T-shape in cross section.

4. In a car underframe, a metallic end sill having a middle portion and an end portion of an inverted T-shape in cross section, and means subject to shear stress only for fixing the said portions together.

5. In a car underframe, a metallic end sill having a middle portion, an end portion adapted to be fixed to the middle portion,

and an upright bracket on and integral with the middle portion forward of the end portion.

6. In a car underframe, a metallic end sill having a middle portion and two end portions adapted to be fixed to the middle portion, the said middle portion having openings transversely therethrough for the buffing-stems, and upright brackets on the middle portion forward of the end portions.

CHARLES F. FREDE.

Witnesses:

C. F. WESTLAKE,

HAROLD C. BELLVILLE.