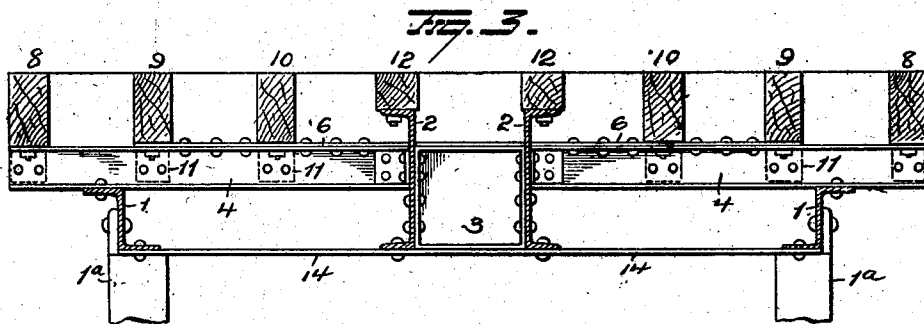
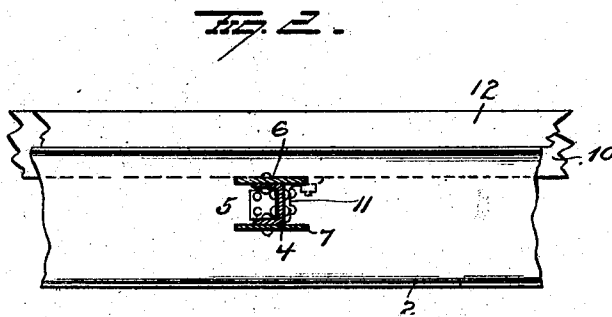
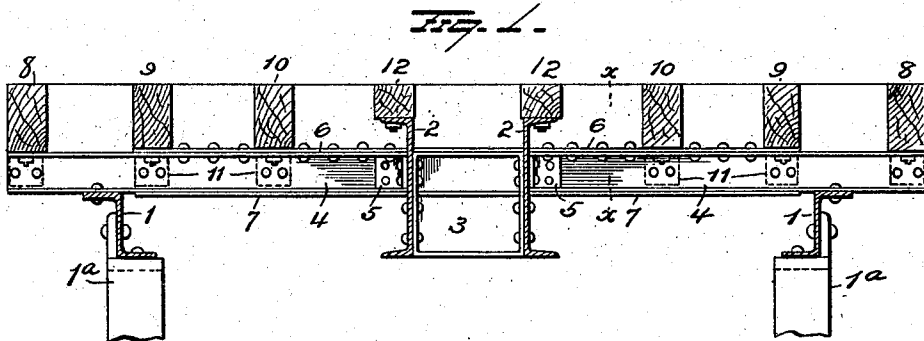


A. BECKER.
 UNDERFRAME FOR CARS.
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899,651.

Patented Sept. 29, 1908.



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UNDERFRAME FOR CARS.

No. 899,651.

Specification of Letters Patent.

Patented Sept. 29, 1908.

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To all whom it may concern:

Be it known that I, ANTON BECKER, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Underframes for 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 appertains to make and use the same.

My invention relates to improvements in car underframes,—the object of the invention being to simplify the construction of underframes for short cars, such as four-wheeled cabooses, and at the same time insure the necessary rigidity and strength of the underframe.

With this object in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a transverse sectional view illustrating an underframe embodying my improvements, and Fig. 2 is a sectional view on the line $x-x$ of Fig. 1. Fig. 3 is a transverse sectional view showing a slight modification.

The underframe, hereinafter described in detail, is supported upon the pedestals over the journal-boxes of the car, and to facilitate this I provide flanged members, such as Z-beams 1 and secure them upon the pedestals 1^a. A center girder 2 is disposed between the Z-beams and preferably consists of two channel-iron members spaced apart and having a filler 3 secured between them. This center girder is supported upon the Z-beams through the medium of cross-beams 4. Each cross-beam 4 comprises two members and each of these members consists of channels either rolled or pressed into shape and secured at their inner ends to the respective members of the center girder an appreciable distance below the upper flanged edges of the latter, by means of angle-plates 5. The channel members of each cross-beam rest upon the Z-beams and project some distance laterally beyond the same. The channel members of the cross-beams are of comparatively shallow depth or width and the members of the center girder are provided with slots through which compression plates 6 and

tension plates 7 are passed,—said compression and tension plates being secured by means of rivets respectively, to the upper and lower flanges of the cross-beam members.

Those portions of the channel cross-beam members which project laterally from the Z-beams afford seats for the side-sills 8 of the car. Furring strips 9 are located upon the cross-beams, preferably over the support of the latter upon the Z-beams. Other furring strips 10 are located upon the cross-beams between the furring strips 9 and the center girder. Angle irons 11 are secured to the webs of the cross-beam members directly under the side-sills 8 and the furring strips 9 and 10 and to these angle-irons said side-sills and furring strips are bolted. A smaller furring strip 12 is bolted upon each member of the center girder and the upper faces of the furring strips 12 are made to aline with the upper faces of the furring strips 9 and 10 and the side sills 8 for the accommodation of the car flooring.

Instead of passing the lower tension plate 7 through the webs of the center girder members, a lower tension plate 14 may be secured to the lower flanges of the center girder members and to the base flanges of the Z-bars 1, as shown in Fig. 3.

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is,—

1. A car underframe comprising flanged beams adapted to be supported upon the pedestals of the car, a center girder, and cross-beams, each cross-beam comprising two channel members of comparatively narrow width and secured at their inner ends to the center girder an appreciable distance from the upper and lower edges thereof, said cross-beam members resting upon the flanged beams, projecting laterally from the latter and affording seats for side-sills.

2. A car underframe comprising flanged beams adapted to be supported upon the pedestals of the car, a center girder, cross-beam members of comparatively narrow depth secured at their inner ends to the center girder an appreciable distance from the upper and lower edges of the latter, said cross-beam members resting upon the flanged beams and projecting laterally therefrom,

compression plates passing through the center girder and secured upon the cross-beam members, and tension plates also passing through the center girder and secured to the lower edges of the cross-beam members.

3. The combination with flanged beams adapted to be supported upon the pedestals of a car, and a center girder, of a cross-beam comprising two channeled members each secured at its inner end to the center girder an appreciable distance from the top and bottom thereof, compression and tension plates passing through the center girder and secured to the upper and lower edges of the respective cross-beam members, said cross-beam members resting upon the flanged beams and projecting laterally therefrom, side-sills disposed upon the projecting ends of the cross-beam members, furring strips located on the cross-beam members between

the side-sills and the center girder, and furring strips secured upon the center girder.

4. The combination with flanged beams adapted to be supported upon the car pedestals, and a center girder, of cross-beams, each comprising two channel members secured at their inner ends to the center girder, said cross-beam members resting upon the flanged beams and projecting laterally beyond the same, furring strips located upon the cross-beam members, and angle-irons secured to the cross-beam members and to the furring strips.

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

ANTON BECKER.

Witnesses:

E. S. CULVER,
F. A. LIVINGSTON.