A. BECKER.

UNDERFRAME FOR CARS.

APPLICATION FILED APR. 16, 1909.

952,062.

Patented Mar. 15, 1910.

FIG. 1.

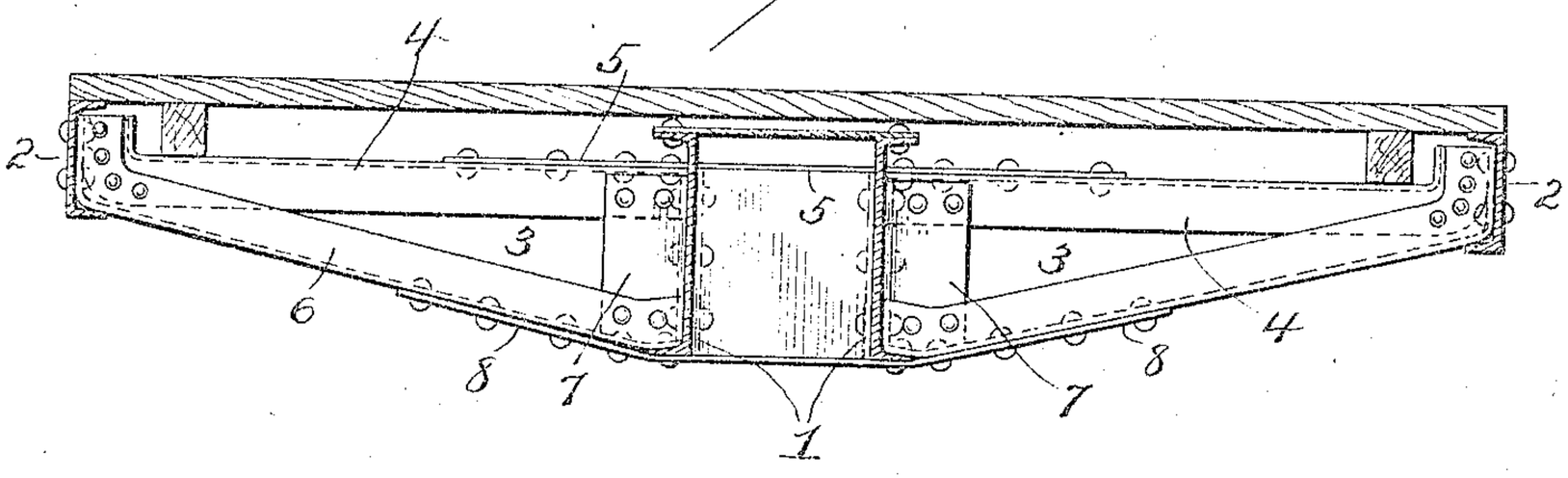
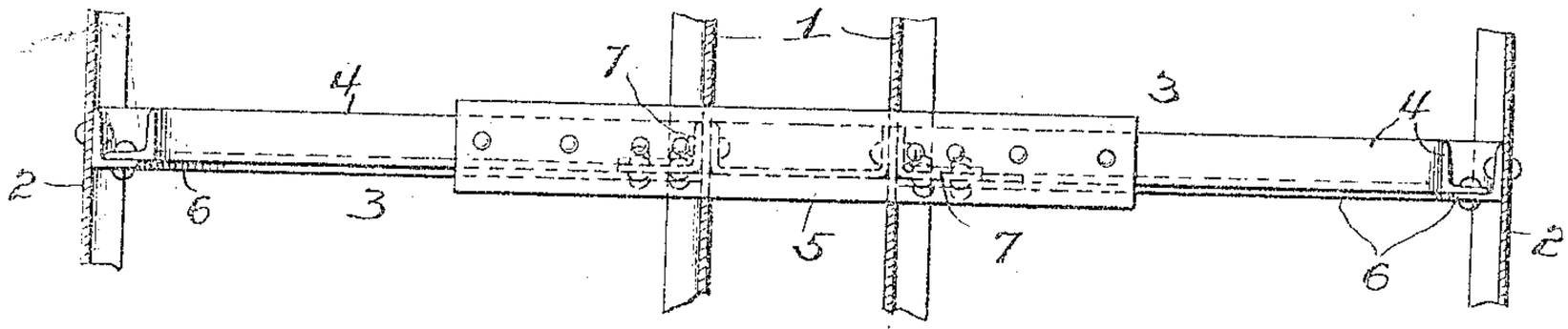


FIG. 2.



WITNESSES

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UNDERFRAME FOR CARS.

952,062. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed April 16, 1909. Serial No. 490,304.

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.

This invention relates to improvements in underframes for cars, and more particularly to the construction of the cross-bearers,—the object of the invention being to so construct a cross-bearer that the use of diaphragms at respective sides of the center girder will be avoided; which will operate to transfer any load which may come thereon, to the center girder; and which can be secured directly to the side sills without the use of gussets.

With these objects 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 of a car underframe showing an embodiment of my invention, and Fig. 2 is a plan view of the structure shown in Fig. 1.

1 represents a center girder of the box type and 2, 2, channel side sills, which are connected with the center girder through the medium of cross-bearers 3. Each cross-bearer comprises, at each side of the center girder, a horizontal angle-beam 4 and the angle-beams 4 at respective sides of the center girder are connected by means of a tension plate 5 secured to said angle-beams and passing through the webs of the center girder members. The compression members of the cross-bearer comprise diagonally disposed angle-beams 6 connected at their inner ends with the lower portion of the center girder through the medium of gussets 7 and these gussets also serve to connect the inner ends of the tension angle-beams 4 with the center girder. A compression plate 8 is secured at its respective ends to the respective angle-beams 6 and passes under the center girder, to the lower flanges of which it is secured.

The outer ends of the angle-beams 4 and 6 are riveted together and both are bent upwardly as shown in Fig. 1 so that the laterally projecting flange of the angle-beam 6 will be disposed vertically against the web of the side-sill to which it is riveted. In this manner the respective members of the cross-bearer are secured together at their outer ends and are riveted to the side sills without the use of gussets.

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

1. In a car underframe, the combination with a center girder and side sills, of a cross-bearer comprising angle-beam compression and tension members secured to the center girder and secured together at their outer ends, the outer ends of said members being bent upwardly and secured to the side sills.

2. In a car underframe, the combination with a center girder and side sills, of a cross-bearer comprising at each side of the center girder, upper and lower angle-beams secured at their inner ends to the center girder and secured together at their outer ends, said outer ends being secured directly to the side sills, a tension plate passing through the center girder and secured to the upper cross-bearer members, and a compression plate secured to the lower cross-bearer members, passing under the center girder and secured to the latter.

3. In a car underframe, the combination with a center girder and side sills, of a cross-bearer comprising at each side of the center girder angle-beam upper and lower members secured together at their outer ends, said outer ends being bent upwardly and secured to the side sills, gussets connecting the inner ends of the cross-bearer members with the center girder, a tension plate connecting the upper members of the cross-bearer at respective sides of the center girder, and a compression plate connecting the lower members of the cross-bearer and passing under the center girder.

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

ANTON BECKER.

Witnesses:
T. A. LIVINGSTON,
E. S. CULVER.