No. 801,643. PATENTED OCT. 10, 1905.

T. R. BROWN.

DRAFT SILL.

APPLICATION FILED JULY 18, 1905.

FIG. 1.

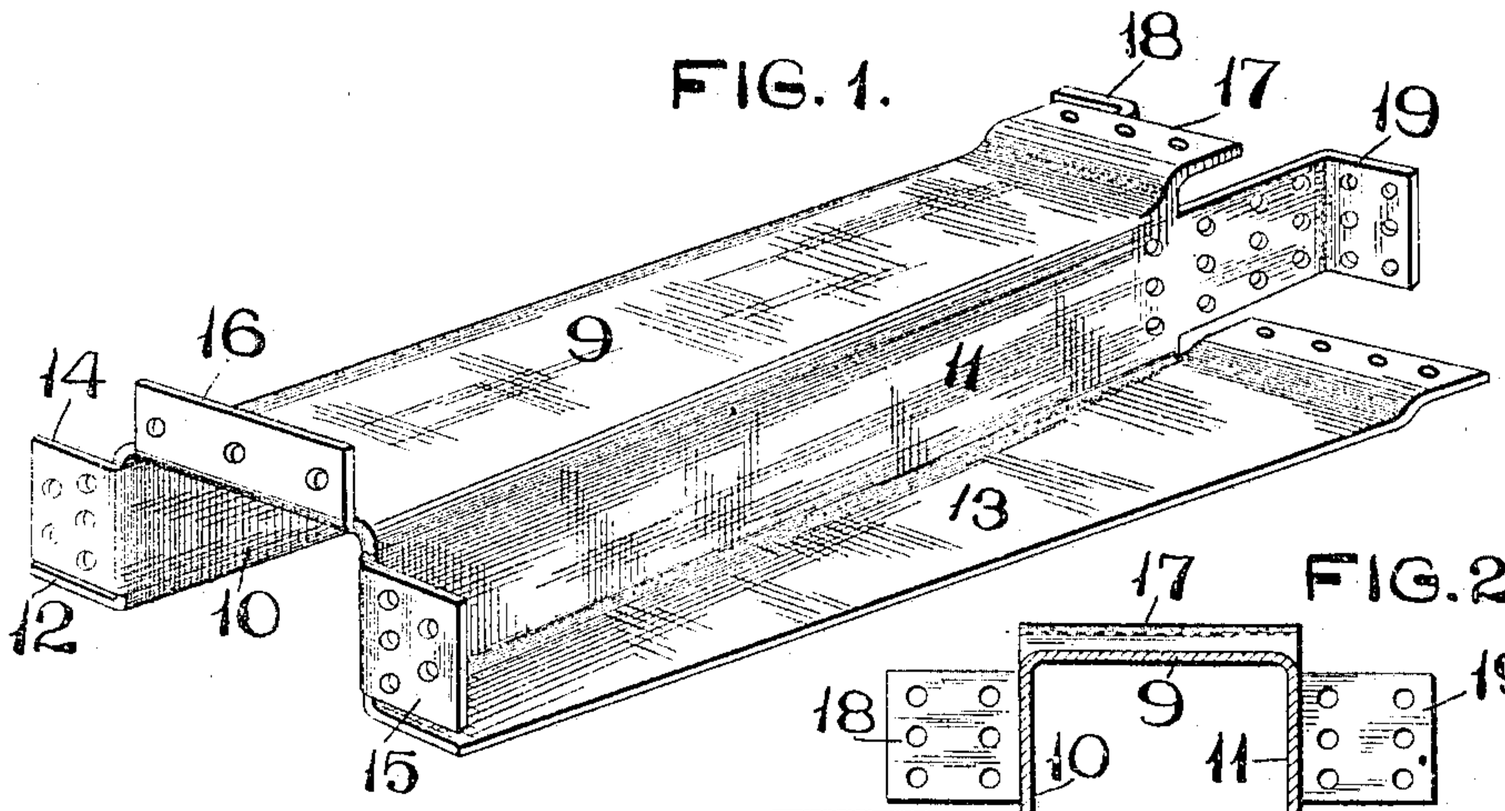


FIG. 2

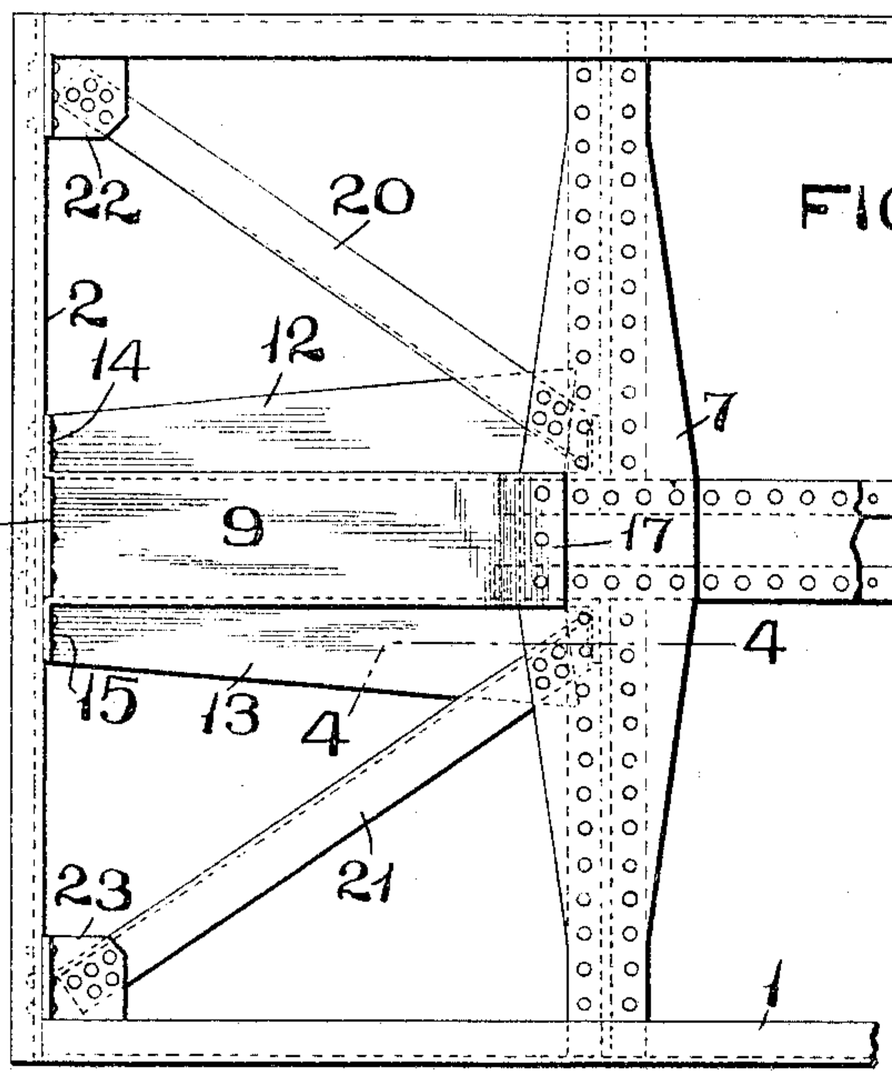


FIG. 3.

FIG. 4.

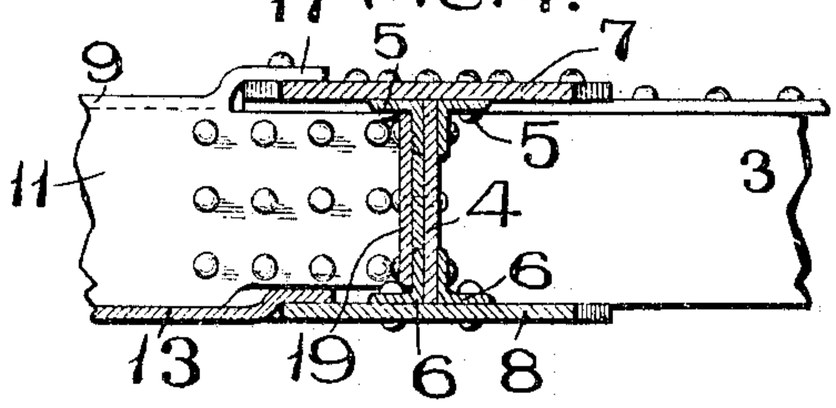
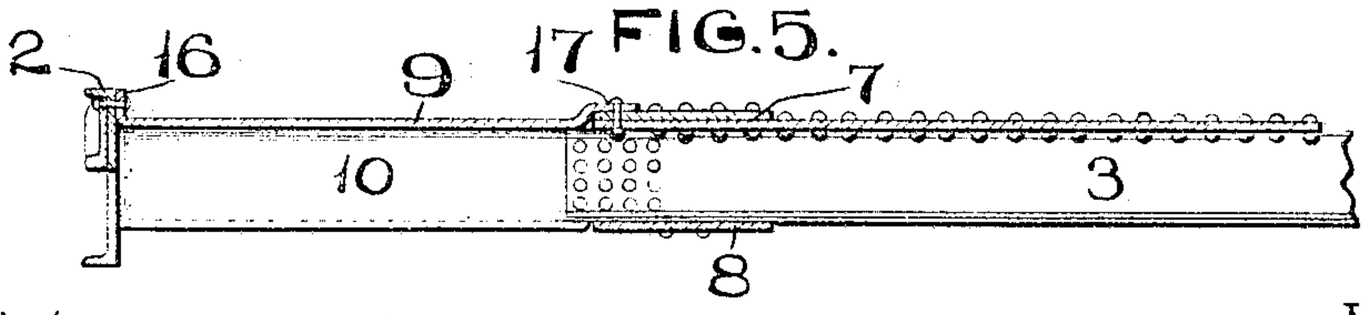


FIG. 5.



WITNESSES:—

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UNITED STATES PATENT OFFICE.

THOMAS R. BROWN, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN CAR & FOUNDRY COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY.

DRAFT-SILL.

No. 801,643. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed July 18, 1905. Serial No. 270,187.

To all whom it may concern:

Be it known that I, THOMAS R. BROWN, a citizen of the United States, residing at New York, State of New York, have invented a certain new and useful Improvement in Draft-Sills, 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 use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a draft-sill constructed in accordance with my invention. Fig. 2 is a cross-sectional view through the same. Fig. 3 is a top plan view of a part of the underframing of a car to which my invention is applied. Fig. 4 is a sectional view on the line 4 4 of Fig. 3, and Fig. 5 is a vertical longitudinal sectional view through the underframing and the draft-sill.

This invention relates to railway-cars, and particularly to a draft-sill therefor.

One of the objects of the invention is to construct a draft-sill which may be pressed from a single piece of metal and which is provided with integral flanges for connection with the body-bolster and end sill.

It is also the purpose of my invention to provide an underframe structure embodying a pressed-steel draft-sill in combination with the end sill and bolster, whereby the draft-sills not only serve as a support for the draft-rigging, but assist in bracing the car structure.

In the drawings illustrating my invention I have shown the underframing as consisting of a side sill 1, end sill 2, and center sill comprising the flanged beams 3. These center-sill beams do not extend from end sill to end sill, but terminate slightly beyond the bolsters. Each bolster preferably consists of a vertical web 4, connected to the center sill and side sills. At the top and bottom edges of each web 4 are angles 5 and 6, respectively, the vertical flanges of said angles being secured to the webs, while the horizontal flanges are connected to the top and bottom cover-plates 7 and 8. The top cover-plates are preferably wider at their center than at their ends, the reason for which will be presently explained. Connected to each bolster and each end sill is a draft-sill pressed from a single sheet, and each draft-sill is illustrated as comprising a top portion 9, extending from end sill to the bolster. Depending sides 10 and 11 are carried by the top 9, said depending sides having outwardly-disposed flanges 12 and 13, which are in horizontal planes below the plane of the top 9. The sides 10 and 11 have oppositely-disposed flanges 14 and 15, and the top 9 is provided with an upstanding flange 16, all of said flanges 14, 15, and 16 being designed to be secured to the end sill of the car. At the end of the draft-sill opposite to the flanges just described is an offset flange 17, connected to and in the plane higher than the top of the draft-sill, which flange 17 is designed to be secured to the top of the top cover-plate 7 of the bolster.

Projecting L-shaped extensions 18 and 19 are carried by the sides of the draft-sill, the longitudinal portions of the extensions being secured to the sides of the ends of the center sill, while the outwardly-disposed portions of said extensions are secured to the webs of the bolster. The ends of the flanges 12 and 13 are provided with offset extensions in planes higher than the planes of said flanges, so as to overlap the top of the bottom cover-plate 8, to which they are secured. It will be observed that the flanges 12 and 13 are wider near the bolster than at the end sill and that the structure heretofore described is additionally braced by the diagonals 20 and 21, connected to said flanges and to tie-plates 22 and 23 at the corners of the car. By such a construction the draft-sills may be expeditiously and conveniently attached to and removed from the car-underframe, as occasion may demand.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A pressed-steel draft-sill comprising a top, depending sides carried by the top, outwardly-disposed flanges carried by said sides and wider at one end than at the other; vertical flanges carried by one end of the draft-sill for engagement with the end sill, and flanges carried by the opposite end of the draft-sill for engagement with the bolster; substantially as described.

2. In a railway-car, the combination with side sills, end sills and bolsters, of center sills extending from bolster to bolster and projecting slightly beyond the same, draft-sills connected to the end sills and to the sides of the

center-sill members, and integral parts carried by said draft-sills and connected to the top and bottom cover-plates of the bolsters; substantially as described.

3. A draft-sill of pressed metal having a top, sides depending from the top, outwardly-disposed flanges carried by the sides, an extension carried by the top and in a plane higher than said top, said extension being secured to the top of the bolster, extensions on the draft-sill for engagement with the center sill and bolster, and flanges on the draft-sill for engagement with the end sill; substantially as described.

4. A draft-sill of pressed steel approximately inverted-U-shaped in cross-section and having oppositely-disposed flanges at the free lower edges of the sides, the ends of said flanges adjacent the bolster being wider than the ends adjacent the end sill, and integral connecting members carried by the respective ends of the draft-sill for engagement with the end sill and the bolster; substantially as described.

5. In a railway-car, the combination with an underframing having a bolster provided with a top cover-plate, a bottom cover-plate and a web connected to the top cover-plate and bottom cover-plate, of a draft-sill of pressed steel connected to the end sill and having a connecting means integral therewith attached to the center sill and the web of the bolster, an offset flange carried by the top of the draft-sill and overlapping the top cover-plate of the bolster to which it is secured, and flanges overlapping the bottom cover-plate of the bolster and secured thereto; substantially as described.

6. In a railway-car, the combination with an underframing having a bolster provided with a top and a bottom cover-plate, a draft-sill of pressed steel having a top cover-plate-engaging portion, a bottom cover-plate-engaging portion, extensions engaging the center sills and bolster-web, and means for connecting one end of the draft-sill to the end sill; substantially as described.

7. A draft-sill of pressed metal having a top, sides depending from the top, an extension carried by the top and in a plane higher than said top, whereby said extension may be secured to the top of the bolster, and means on the draft-sill for engagement with the bolster and the end sill; substantially as described.

8. A draft-sill of pressed metal having a top, sides depending from the top, means carried by the top for engagement with the top of the bolster, and means carried by the sides for engagement with the center sill and the bolster, and means for engagement with the end sill of the car; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 11th day of July, 1905.

THOMAS R. BROWN.

Witnesses:

ROBT. G. JEFFERY,

J. F. T. FULLER.