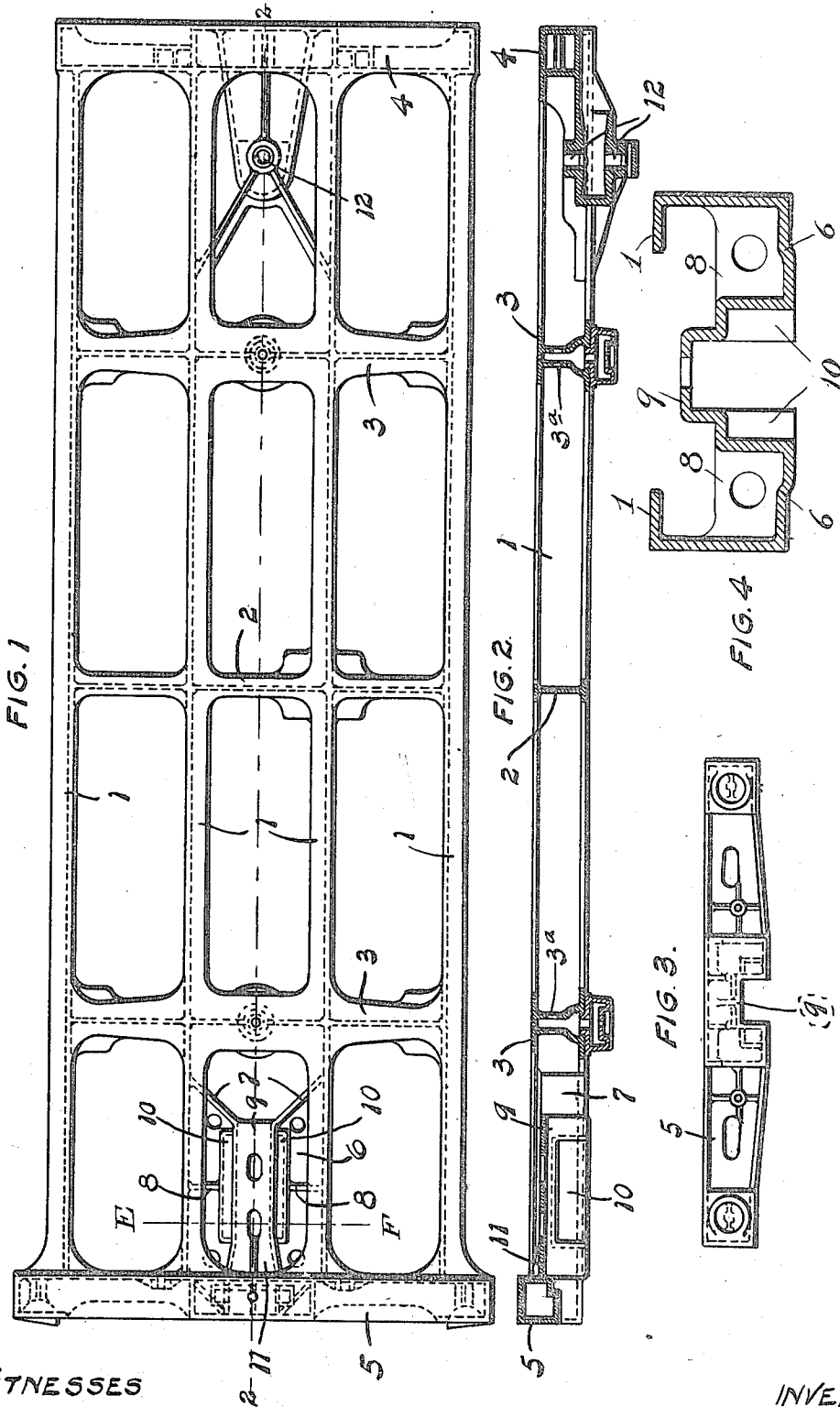


C. H. HOWARD.
 CAST STEEL UNDERFRAME FOR CARS.
 APPLICATION FILED JUNE 21, 1911.

1,060,090.

Patented Apr. 29, 1913.



WITNESSES

Mr. Jannus
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INVENTOR

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BY J. W. Cornwall, ATT'Y.

UNITED STATES PATENT OFFICE.

CLARENCE H. HOWARD, OF ST. LOUIS, MISSOURI, ASSIGNOR TO LOCOMOTIVE TENDER FRAME COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF DELAWARE.

CAST-STEEL UNDERFRAME FOR CARS.

1,060,090.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed June 21, 1911. Serial No. 634,590.

To all whom it may concern:

Be it known that I, CLARENCE H. HOWARD, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Cast-Steel Underframes for Cars, 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 top plan view taken on the line 2 of the improved underframe; Fig. 2 is a longitudinal sectional view; Fig. 3 is an elevational view of the rear end sill, and Fig. 4 is a sectional view on line E—F, Fig. 1.

This invention relates to a new and useful improvement in cast steel underframes for locomotive tenders and other railway rolling stock, the object being to construct a device of the character described which can be cast in one piece and which embodies a novel arrangement of flanged bars and reinforcing webs, all as will hereinafter be described and pointed out in the claims.

In the drawings, 1 indicates the longitudinal members, 2 a centrally located transverse bar, 3 the bolster members, 4 the front end sill, and 5 the rear end sill. Extending rearwardly from the rear end sill and coincident with the lower flanges of the longitudinal members, is a web 6, said web terminating in obliquely disposed flanges 7, and being strengthened by transversely disposed flanges 8.

9 is a box-like housing extending along the center of the web and provided with lateral pockets 10, the front and rear walls of which form shoulders for the follower plates of the draft rigging, not shown. The forward end of the housing 9 is flared outwardly as at 11, and reinforced by a vertically disposed strengthening web, as shown.

The position occupied by the housing in the underframe is best illustrated in Fig. 2 in which it will be seen that the housing lies substantially entirely above the bottom flanges of the draft sills so that the stresses from the draft gear are delivered to the underframe in the plane of the draft sills. Formed as it is on the lower flanges of the draft sills, and connected to the webs of the draft sills by the flanges 7 and 8 and to the end sill, the construction provides a draft gear housing of great strength and compactness.

A tender frame constructed as above described is exceedingly simple and strong, and is not liable to be broken in service. It may readily be molded, and, as the parts are all cast integral, the absence of fastening devices prevents the parts from becoming loose.

I claim:

In an underframe, draft sills and an end sill, a horizontal web connecting the lower edges of the draft sills, a casing formed integrally with said web and positioned above the same, the top and walls of said casing being formed integrally with the end sill, said casing being formed with a central housing and lateral pockets disposed in the plane of the draft sills, transverse webs connecting the walls of said lateral pockets with the draft members, a longitudinal web connecting the upper wall of said central housing with said end sill and oblique webs connecting the central housing with the draft members.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 13th day of June, 1911.

C. H. HOWARD.

Witnesses:

HAR C. BELLVILLE,
B. L. CROWLEY.