

Sept. 1, 1931.

G. G. GILPIN

1,821,151

CAR CONSTRUCTION

Original Filed May 16, 1929

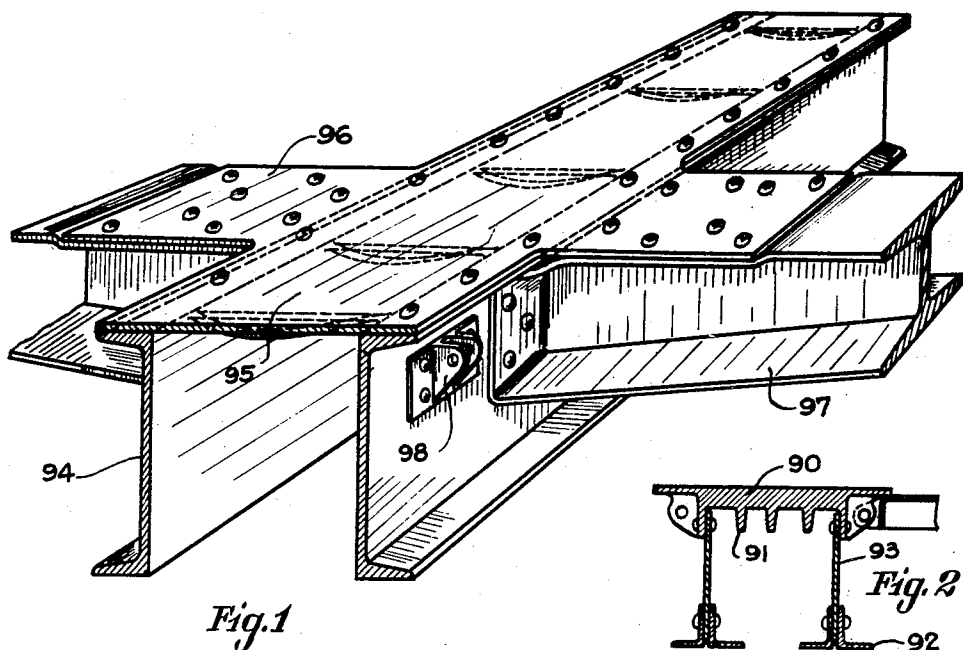


Fig. 1

Fig. 2

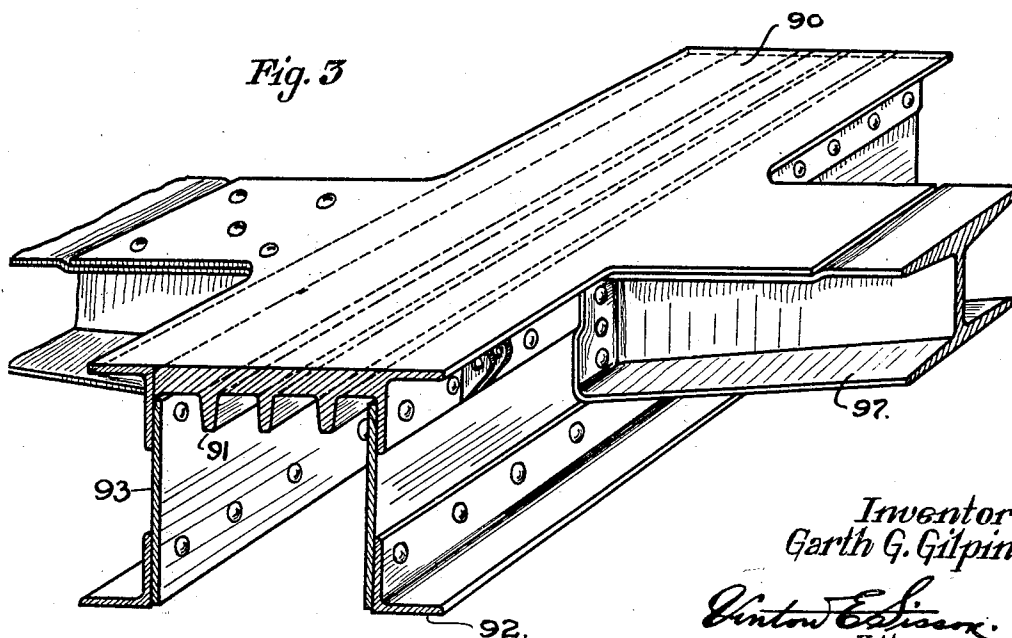


Fig. 3

Inventor:
Garth G. Gilpin

Winton E. Edson
Attorney

UNITED STATES PATENT OFFICE

GARTH G. GILPIN, OF RIVERSIDE, ILLINOIS, ASSIGNOR TO UNION METAL PRODUCTS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE

CAR CONSTRUCTION

Original application filed May 16, 1929, Serial No. 363,550. Divided and this application filed October 30, 1930. Serial No. 492,230.

By nature of their requirements railway freight cars are out of doors substantially all of the time, and therefore, are subjected to corrosive action of the elements, and while paint and other non-corrosive coatings have been applied to the car parts, such protection not only has been found to be expensive in time and money, but the lading removes the coating. This is particularly true of the inside of open type cars which are turned upside down in unloading machines causing the load to slide across the inside surface of the car body and also when the discharging load slides across the surface of a drop door and also when the long lading rests upon the lowered drop end gate of a gondola car the friction therebetween caused by the movement of the car also removes the protective coating from the end gate. Furthermore, certain ladings, such as sulphur, wet coal, which forms sulphuric acid, and saline water (in refrigerator and stock cars) cause rolled steel or iron to corrode. It is, therefore, advisable to make such parts of the car as come in contact with the load of cast metal so as to resist corrosion, but I prefer to make the load carrying and buff resisting members (such as center sills, side sills, cross bearers, etc.,) of rolled steel on account of its greater tensional strength and to protect these rolled steel members by cast metal members; for instance, the center construction is made of rolled steel lower members (which are the tension members) and of a cast metal upper member (compression member) which is in contact with the load.

In the drawings:

Fig. 1 shows a form of my invention.

Figs. 2 and 3 show a modification of my invention.

Fig. 1 shows a construction wherein the center sills 94 are formed of rolled steel (channels illustrated) and the cover plate 95 is formed of cast metal having integral cast wings 96 secured to the cast metal cross bearers 97. These cross bearers are preferably formed of I section with compression and tension members connected by a web. The hinge butts 98 for the doors are attached to the center sills. With this construction the

lading does not come in contact with any of the rolled steel structural members.

Fig. 2 shows a modified form of center construction wherein the compression member 90 is formed of relatively thick cast metal with reinforcing ribs 91 and the tension member comprises a pair of rolled steel sections 92 (angles shown) and the web member 93 is also of rolled steel. This web member, of course, is secured to the tension member and compression members. This construction is desirable because rolled steel is stronger in compression than cast metal, therefore, this beam comprises a metal which is practically non-corrosive (cast metal) in contact with the lading and that portion of the construction which is not in contact with the lading is formed of relatively stronger rolled steel.

The accompanying drawings illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof, within the scope of the claims, will occur to persons skilled in the art.

This is a division of my co-pending application Serial No. 363,550, filed May 16, 1929.

I claim:

1. A center construction for a railway car comprising rolled steel center sills, and a cast metal cover plate.

2. A center construction for a railway car comprising rolled steel center sills, a cast metal cover plate having integral wings, and cross bearers secured to the wings.

3. A center construction for a railway car comprising rolled steel center sills, a cast metal cover plate having integral wings, and cross bearers secured to the wings, center sills and cover plate.

4. A center construction for a railway car comprising rolled steel center sills and a cast metal cover plate having integral hinge butts.

GARTH G. GILPIN.