W. S. BIDLE & J. A. COSTELLO.

CARLINE FOR CAR ROOFS.

APPLICATION FILED JULY 17, 1912.

1,044,733.

Patented Nov. 19, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

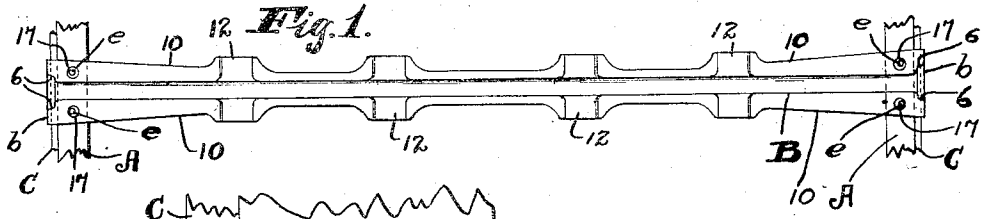

Fig. 2.

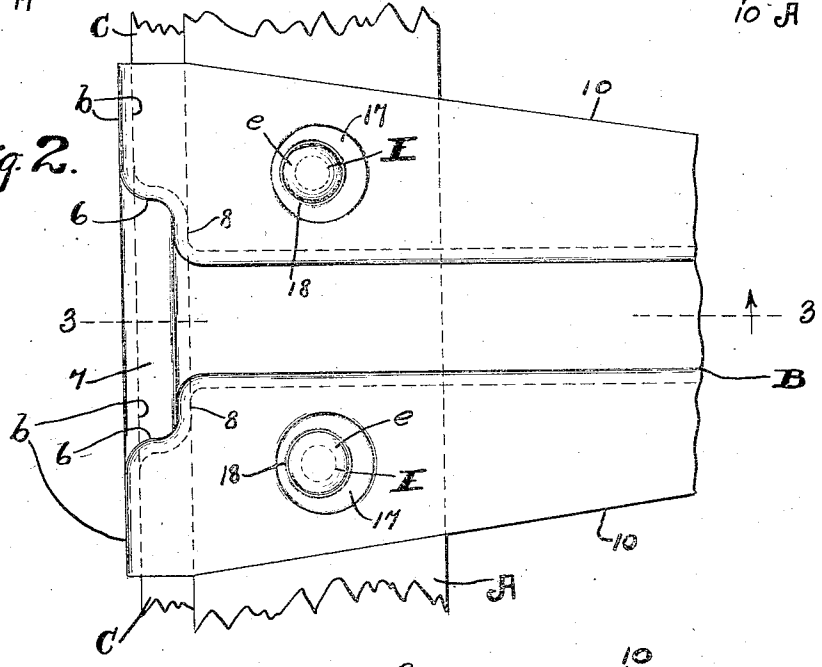

Fig. 3.

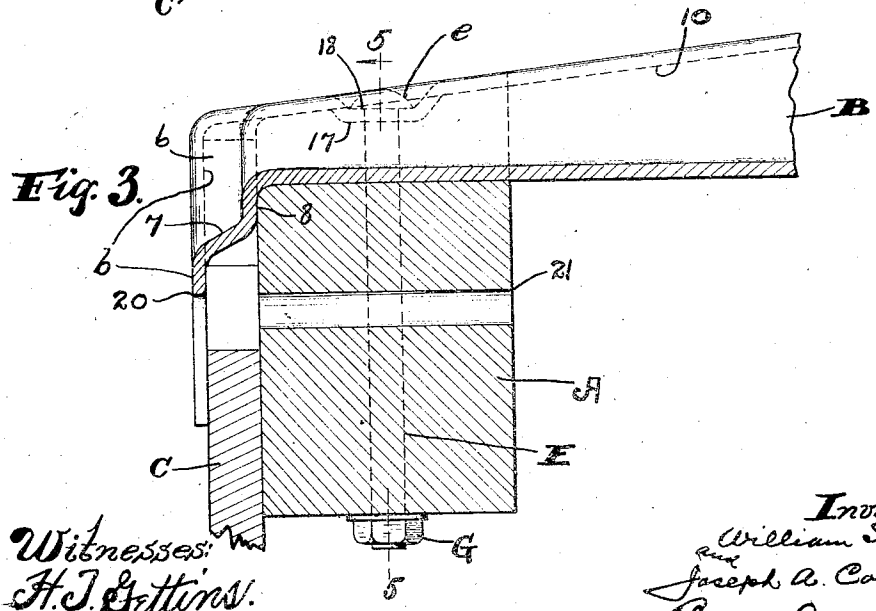

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Fig. 4.

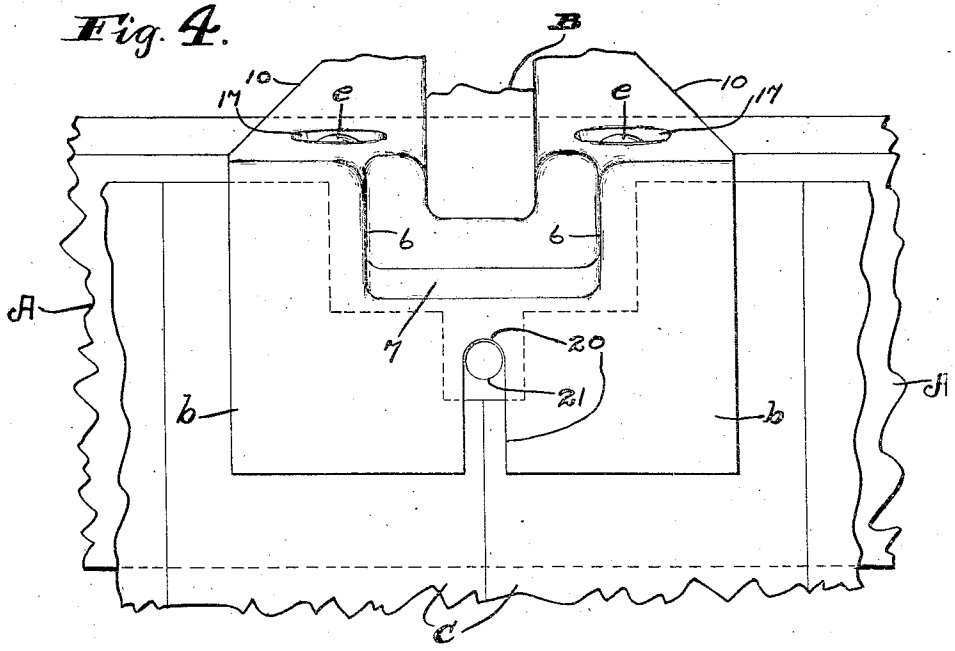
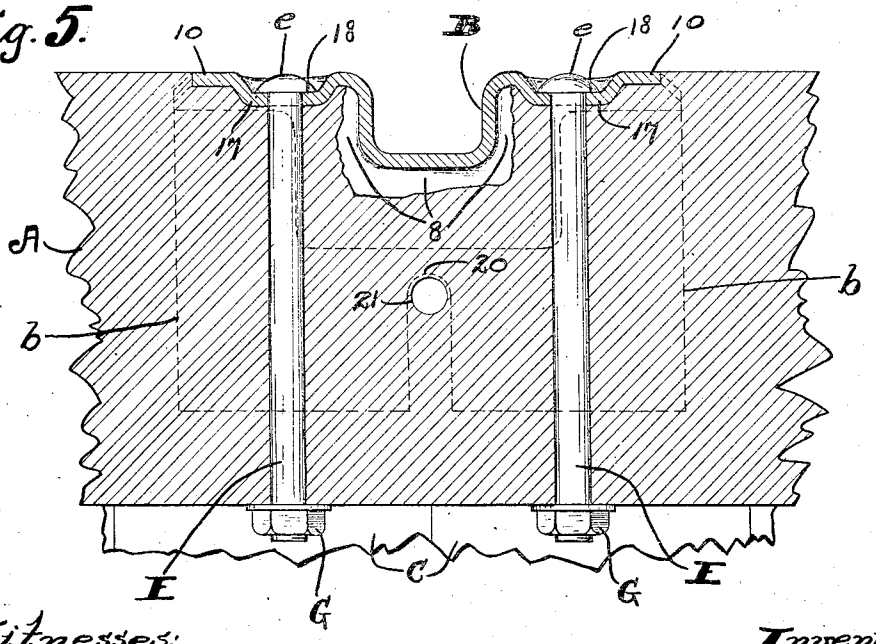


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM S. BIDLE AND JOSEPH A. COSTELLO, OF CLEVELAND, OHIO, ASSIGNORS TO CLEVELAND CAR SPECIALTY COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF WEST VIRGINIA.

CARLINE FOR CAR-ROOFS.

1,044,733. Specification of Letters Patent. Patented Nov. 19, 1912.

Application filed July 17, 1912. Serial No. 709,844.

To all whom it may concern:

Be it known that we, WILLIAM S. BIDLE and JOSEPH A. COSTELLO, citizens of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Carlines for Car-Roofs; and we 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 pertains to make and use the same.

This invention relates to improvements in metal carlines for car-roofs, and pertains more especially to a carline comprising a trough adapted to bridge the space between and extend transversely of and through the upper portions and beyond the outer sides of the side plates of a car-roof-frame and having the sides of its portions which are adapted to extend outwardly from the outer sides of the side plates offset laterally and outwardly and having its bottom offset downwardly between the offset portions of the sides of each end-portion of the trough.

One object of this invention is to avoid flooding of said trough at the ends of the trough, to prevent the passage of water from within the ends of the trough onto the car-siding arranged at the outer sides of the side plates, to effect an economical production of the carline, and to render the carline more especially strong and durable at its ends.

Another object is to provide the carline at the inner ends of the offset portions of the sides and bottom and externally of the trough with shoulders which extend transversely of the bottom of the trough and from said bottom upwardly at each side of the trough to the top of the trough so as to form efficient lateral abutments for the outer sides of the aforesaid side plates.

With these objects in view, and to the end of attaining any other advantage hereinafter appearing, this invention consists in certain features of construction and combinations and arrangement of parts hereinafter described, pointed out in the claims, and illustrated in the accompanying drawings.

In said drawings, Figure 1 is a top plan of a carline embodying our invention, and shows the carline applied to the side plates of a car-roof-frame. Fig. 2 is a top plan of an end-portion of our improved carline applied to a side plate of a car-roof-frame and showing car-siding at the outer side of said side plate. Fig. 3 is a vertical section on line 3—3, Fig. 2, looking in the direction indicated by the arrow. Fig. 4 is a left-hand side elevation relative to Fig. 3. Fig. 5 is a vertical section on line 5—5, Fig. 3, looking outwardly. A portion of the side plate illustrated in Fig. 5 is shown broken away to show a shoulder formed on the carline at the outer side of said side plate. Figs. 2, 3, 4, and 5 are drawn on a larger scale than Fig. 1.

Referring to Fig. 1 of the drawings, A and A indicate the two laterally spaced horizontally arranged side plates of a car-roof-frame, and a metal carline embodying our invention and preferably composed of a steel blank pressed into the shape required is shown applied to said side plates and comprises a trough B which bridges the space between and extends transversely of and through the upper portions and beyond the outer sides of said side plates which of course are recessed or cut away in any approved manner to receive said trough. Said trough has each side thereof offset laterally and outwardly, as at 6, at the outer side of each side plate. The trough B has its bottom offset downwardly, as at 7, between the offset portions 6 of the sides of each end-portion of the trough. The offset portions 6 and 7 of each end-portion of the trough form an inwardly facing shoulder 8 at the inner ends of said offset portions and externally of the trough. That is, the trough is shown provided externally and at the outer side of each side plate with a shoulder 8 which faces inwardly endwise of the carline and forms a lateral abutment for said side of said side plate. Said shoulder 8 extends transversely of the bottom of the trough and upwardly from said bottom at each side of the trough.

The trough B is provided at each end and externally with an end flange *b* which projects downwardly from the outer end of the adjacent offset portion 7 of the bottom of the trough and extends at the sides of the trough from said bottom to the top of the trough and consequently also projects laterally of and outwardly from the adjacent laterally offset portions 6 of the sides of the

trough. Said trough has the passageway formed therein wider between each shoulder 8 and the adjacent end flange *b* than between the two shoulders and preferably gradually enlarged in width toward said flange. Said trough is provided at the top thereof with two laterally and outwardly projecting side flanges 10 arranged at opposite sides respectively of the trough and extending between and to the end flanges *b* of the trough and to upper ends of the shoulders 8, and Fig. 1 shows each side flange 10 provided with seats 12 for purlins or longitudinal members (not shown) of a car-roof-frame.

By the construction hereinbefore described it will be observed that the two shoulders 8 are spaced from the end flanges and longitudinally of the trough and face each other and extend upwardly to the side flanges 10 and consequently to the top of the side plates, and preferably the trough-bottom slopes between the offset portions 6 of the sides of each end-portion of the trough downwardly toward the adjacent end flange *b*.

It will be observed that each end flange *b* is spaced far eough from the adjacent side plate to permit the interposition of car-siding C between said side plate and said flange, and we have shown car-siding interposed between the outer side of each side plate and the adjacent end flange of the carline.

Our improved carline is shown secured to the side plates at the side flanges 10 by suitably applied bolts and nuts. Preferably each side flange 10 is provided between the sides of each side plate with a downwardly offset portion 17 forming a pocket having a substantially horizontally arranged bottom 18 which forms a seat for the head *e* of the bolt which has its shank E extending vertically through and below said side plate, and a nut G is screwed onto said bolt at the bottom of said side plate. We would remark however that the carline is also preferably secured to the side plates by a horizontally arranged bolt (not shown) and to this end each end flange *b* is provided below the bottom of the trough B and centrally between the side edges of said flange with a lateral slot 20 which extends to the lower edge of said flange and registers at its upper end with a bolt-hole 21 formed in and extending laterally through the adjacent side plate.

What we claim is:—

1. A metal carline comprising a trough which at its ends has its sides offset laterally and outwardly and its bottom offset downwardly, said trough being provided externally with two shoulders which are spaced from the ends and longitudinally of the carline and face inwardly endwise of the carline, which shoulders are arranged to form lateral abutments for the outer sides of the aforesaid side plates, said shoulders extending transversely of the bottom of the trough and upwardly from said bottom at each side of the trough.

2. A metal carline which comprises a trough having its sides offset laterally and outwardly at the ends of the trough, which trough is provided externally with two shoulders which are spaced from the ends and longitudinally of the carline and face inwardly endwise of the carline, which shoulders are arranged to form lateral abutments for the outer sides of the aforesaid side plates, said trough being provided at each end and externally with an end flange which projects downwardly from the bottom of the trough and extends at the sides of the trough from said bottom to the top of the trough and also projects laterally of and outwardly from the laterally offset portions of the sides of the trough.

3. A metal carline which comprises a trough provided at each end and externally with an end flange which extends downwardly from the bottom of the trough and laterally outwardly from the sides of the trough, which trough is provided externally with two shoulders spaced from the end flanges and longitudinally of the trough, which shoulders face inwardly endwise of the carline, the passageway formed in and by said trough being wider between each shoulder and the adjacent end flange than between the shoulders.

4. A metal carline which comprises a trough provided at each end and externally with an end flange which extends transversely of and projects downwardly from the bottom of the trough and at the sides of the trough extends from said bottom to the top of the trough, which trough at the top has two laterally and outwardly projecting side flanges arranged at opposite sides respectively of the trough and extending between and to the aforesaid end flanges, said trough being provided externally with two shoulders spaced from said end flanges and longitudinally of the trough, which shoulders face inwardly endwise of the carline and extend across the bottom of the trough and from said bottom upwardly at each side of the trough to the aforesaid side flanges.

5. A metal carline which comprises a trough provided at each end and externally with an end-flange, which trough is provided externally with two shoulders spaced from said flanges and longitudinally of the carline and facing each other, said trough having each side thereof between each shoulder and the adjacent end flange offset laterally and outwardly, and the passageway formed in and by the trough being wider between each shoulder and the adja-

cent end flange than between the shoulders and gradually enlarged in width toward said end flange.

6. A metal carline which comprises a trough provided at each end and externally with an end flange which projects downwardly from the bottom of the trough and at the sides of the trough extends to the top of the trough, which trough is provided externally with two shoulders spaced from the end flanges and longitudinally of the carline and facing each other, said trough having each side thereof between each shoulder and the adjacent end flange offset laterally and outwardly and having its bottom between said shoulder and said flange offset downwardly.

7. The combination, with the two laterally spaced side plates of a car-roof-frame, of a metal carline comprising a trough through the upper portions and beyond the outer sides of and secured to the side plates and having its sides offset laterally and outwardly at the outer side of each side plate, which trough is provided externally and at the outer side of each side plate with a shoulder which forms a lateral abutment for said side plate, said trough being provided at each end and externally with an end flange which projects downwardly from the bottom of the trough and extends upwardly at the sides of the trough, said flange being spaced far enough from the adjacent side plate to permit the interposition of car-siding between said side plate and said flange.

8. The combination, with the two laterally spaced side plates of a car-roof-frame, of a metal carline comprising a trough extending through the upper portions and beyond the outer sides of and secured to the side plates and having its sides offset at the outer side of each side plate laterally and outwardly and having its bottom offset downwardly at the outer side of each side plate, which trough is provided at each end and externally with an end flange projecting downwardly from the outer end of the adjacent downwardly offset portion of the bottom of the trough and extending upwardly at the sides of the trough, said flange being spaced far enough from the adjacent side plate to permit the interposition of car-siding between said side plate and said flange.

9. The combination, with the two laterally spaced side plates of a car-roof-frame, of a metal carline comprising a trough extending through the upper portions and beyond the outer sides of and secured to the side plates and having its sides offset laterally and outwardly at the outer side of each side plate, which trough is provided at each end and externally with an end flange projecting downwardly from the bottom of the trough and extending at the sides of the trough from said bottom to the top of the adjacent side plate, said flange being spaced far enough from the adjacent side plate to permit the interposition of car-siding between said side plate and said flange, and the trough being provided at the top with two laterally and outwardly projecting flanges which are arranged at opposite sides respectively of the trough and extend between and to the end flanges.

10. The combination, with the two laterally spaced plates of a car-roof-frame, of a metal carline comprising a trough extending through the upper portions and beyond the outer sides of and secured to the side plates and having its sides offset laterally and outwardly at the outer side of each side plate, which trough is provided externally and at the outer side of each side plate with a shoulder which forms a lateral abutment for said side of said side plate, which shoulder extends transversely of the bottom of the trough and from said bottom at each side of the trough to the top of the side plate, and the trough being provided at the top with two laterally and outwardly projecting flanges which are arranged at opposite sides respectively of the trough and extend between and to the upper ends of the aforesaid shoulders.

Signed by us at Cleveland, Ohio, this 8th day of July, 1912.

WILLIAM S. BIDLE.
JOSEPH A. COSTELLO.

Witnesses:
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