

No. 742,465.

PATENTED OCT. 27, 1903.

G. B. MALTBY.  
ROOF CARLINE.

APPLICATION FILED AUG. 27, 1903.

NO MODEL.

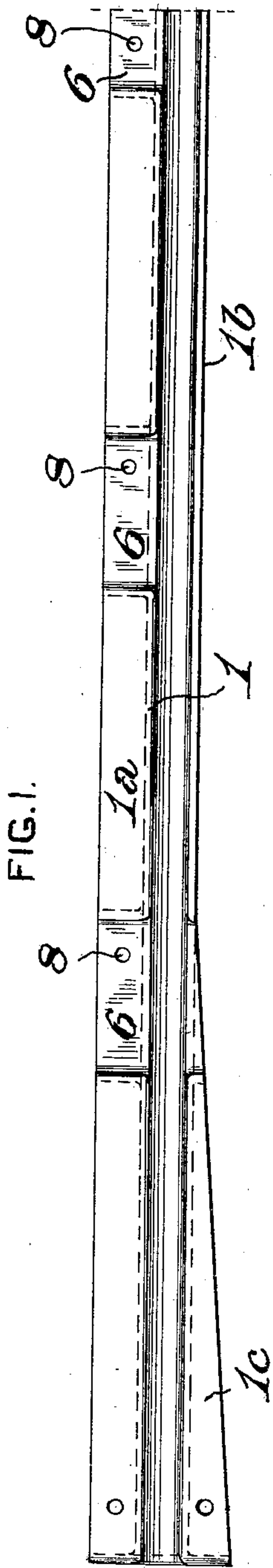


FIG. 1.

FIG. 5.



FIG. 4.



FIG. 3.

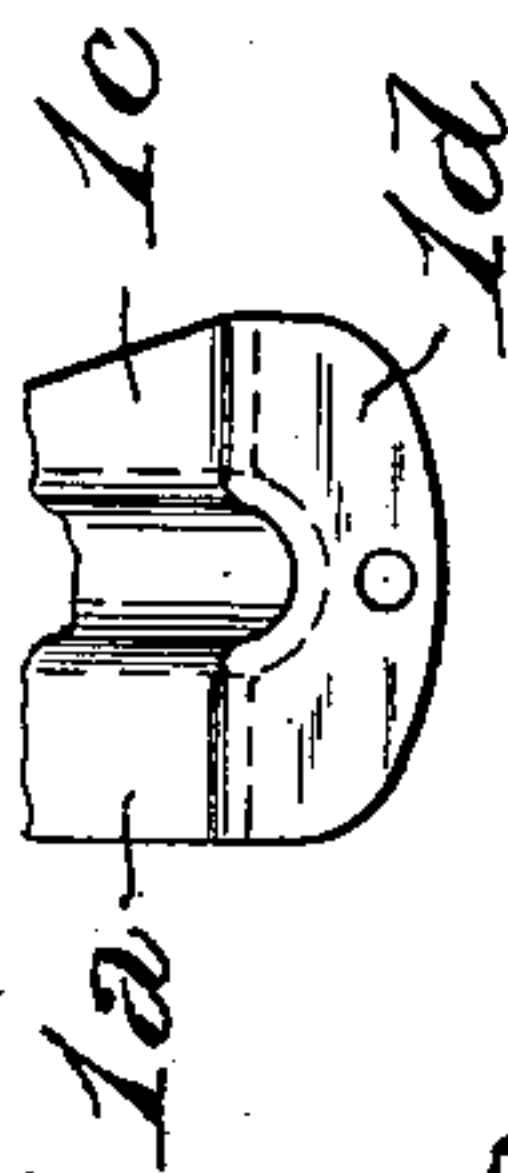


FIG. 7.

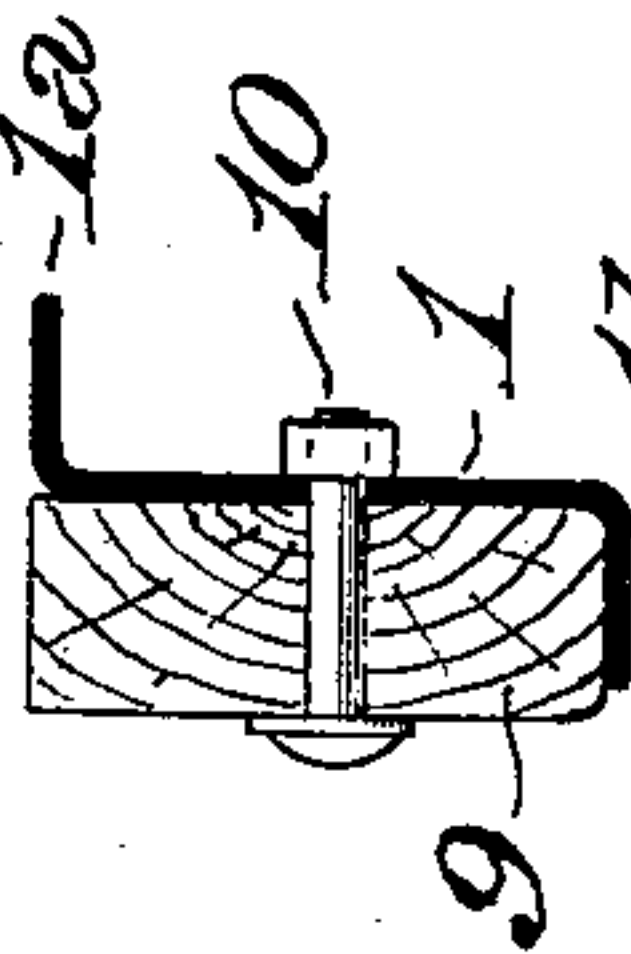


FIG. 6.

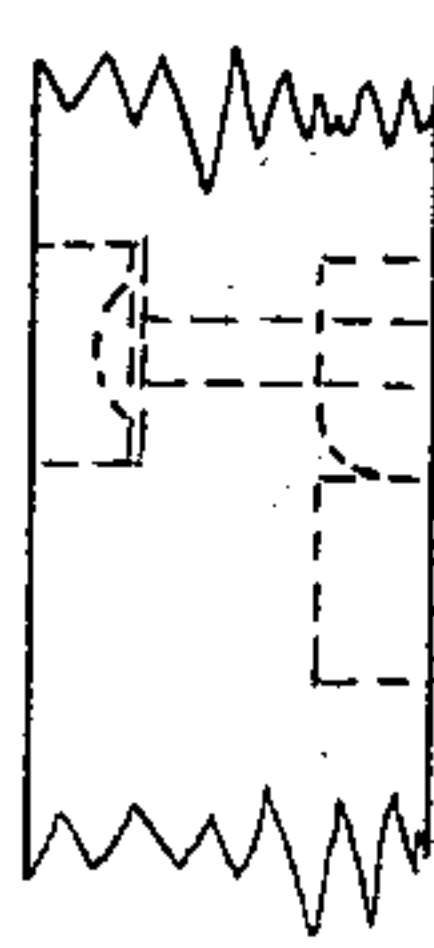
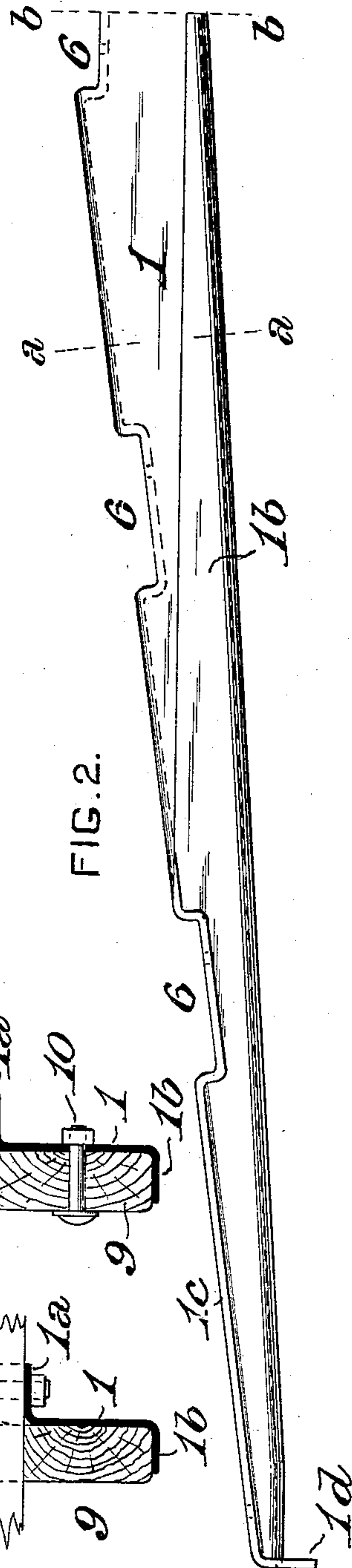


FIG. 2.



WITNESSES

James C. Herron.  
S. R. Bell.

INVENTOR

G. B. Maltby.  
by J. H. Anderson Bell.

Att'y.



# UNITED STATES PATENT OFFICE.

GEORGE B. MALTBY, OF CLEVELAND, OHIO, ASSIGNOR TO CLEVELAND CAR SPECIALTY COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF WEST VIRGINIA.

## ROOF-CARLINE.

SPECIFICATION forming part of Letters Patent No. 742,465, dated October 27, 1903.

Application filed August 27, 1903. Serial No. 170,956. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE B. MALTBY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Roof-Carlines, of which improvement the following is a specification.

My invention relates to sheet or plate metal roof-carlines of the general type which is exemplified in Letters Patent of the United States No. 649,171, granted and issued to me and to Broderick Haskell (as assignee of two-thirds of the right) under date of May 8, 1900.

The object of my present invention is to provide a roof-carline embodying the advantageous features of that set forth in Letters Patent No. 649,171 aforesaid and which shall further afford improved facilities for attachment to a car-frame side plate and for the reception of a wood filler, if desired.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a plan or top view of a roof-carline embodying my invention; Fig. 2, a side view in elevation, showing one-half in length; Fig. 3, an end view as seen from the left; Figs. 4 and 5, transverse sections on the lines *b b* and *a a*, respectively, of Fig. 2; and Figs. 6 and 7, similar views showing the application of a wood filler.

In the practice of my invention I provide a roof-carline which is formed of sheet or plate metal, preferably by being pressed or shaped in a die or mold. The body of the carline is integral and comprises a vertical web 1, a main upper lateral flange 1<sup>a</sup>, and a lower lateral flange 1<sup>b</sup>, which is located on the opposite side of the web from the upper flange. The lower flange may either be a continuation of the web, forming a U or channel section, as shown in Figs. 4 and 5, or be turned at substantially a right angle to the web, as in Figs. 6 and 7. The web 1 gradually diminishes in depth from its middle toward each of its ends and is also downwardly inclined from its middle to each of its ends at such an angle as may be adapted to impart the desired pitch to the roof.

In order to provide suitable facilities for connecting the ends of the carline to the side plates of the car-frame, supplemental upper lateral flanges 1<sup>c</sup> are formed on the web 1 at

and adjoining its ends, from which the flanges 1<sup>c</sup>, which are formed on the opposite side of the web from the flanges 1<sup>a</sup>, taper inwardly to the web, as shown in Fig. 1. The outer ends of the flanges 1<sup>a</sup>, 1<sup>c</sup>, and 1<sup>b</sup> are turned into integral downwardly-projecting end flanges 1<sup>d</sup>, which are adapted to abut against the outer sides of the side plates and to be secured thereto by horizontal bolts, and the upper lateral flanges 1<sup>a</sup> 1<sup>c</sup> are perforated for the reception of vertical bolts by which they are connected to the side plates.

To provide suitable bearings for the ridge-pole and purlins of the roof, the metal of the web 1 and upper flange 1<sup>a</sup> is turned outwardly at the middle of the carline and at suitable distances therefrom between the middle and the ends, so as to form seats 6 of channel-section, in which the ridge-pole and purlins are fitted and to which they are secured by bolts passing through perforations 8 in the seats.

The lower lateral flange 1<sup>b</sup> in addition to performing its normal function of stiffening and strengthening the carline, is also adapted to support a filling-strip 9, of wood, which may be fitted on the flange 1<sup>b</sup> and against the web 1, as shown in Figs. 6 and 7, and secured to the web by bolts 10.

The practical advantages of strength, lightness, and facility of application in ordinary car-framing which are presented by my improvement will be obvious to those familiar with railroad construction, and it will also be apparent that it may be employed in connection with a roof of any desired type.

I claim as my invention and desire to secure by Letters Patent—

1. A sheet or plate metal roof-carline having an integral body comprising a vertical web which gradually diminishes in depth from its middle toward its ends, an upper lateral flange projecting from one side of the web, and a lower lateral flange projecting from the opposite side of the web.

2. A sheet or plate metal roof-carline having an integral body comprising a vertical web which gradually diminishes in depth from its middle toward its ends, an upper lateral flange projecting from one side of the web, a lower lateral flange projecting from the opposite side of the web, and downwardly-turned flanges on its ends.

3. A sheet or plate metal roof-carline having an integral body comprising a vertical web which gradually diminishes in depth from its middle toward its ends, a main upper  
5 lateral flange projecting from one side of the web, supplemental upper flanges projecting from the opposite side of the web at and adjoining its ends, a lower lateral flange projecting from the side of the web to which the  
10 supplemental upper flanges are connected, and downwardly - projecting end flanges turned on the metal of the web and the longitudinal flanges thereof.

4. The combination, with a sheet or plate metal roof - carline having a vertical web 15 which gradually diminishes in depth from its middle toward its ends and upper and lower lateral flanges projecting from opposite sides of the web, of a filling-strip of wood which rests upon the lower flange of the carline, 20 and abuts against the web thereof.

GEORGE B. MALTBY.

Witnesses:

W. S. BIDLE,  
J. A. COSTELLO.