N.M. Barry, Metallic Roof. No. 107.649. Patented Sep. 27.1870.

Fig:1

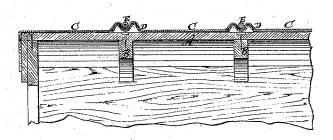
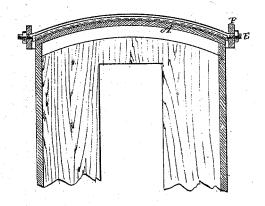


Fig:2.



Witnesses: S. S. Mabee Ges. St. Mabee

## United States Patent Office.

## WILLIAM M. BARRY, OF NASHVILLE, TENNESSEE.

Letters Patent No. 107,649, dated September 27, 1870.

## IMPROVEMENT IN METALLIC ROOFS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM M. BARRY, of Nashville; in the county of Davidson and State of Tennesee, have invented a new and useful Improvement in Metallic Roofs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in the construction of roofs for railroad cars and other purposes, whereby many of the objections which have hitherto been met with in the construction of

roofs are obviated; and

It consists in the mode of making the joints in the sheets of the covering, and in confining the sheets, as will be hereinafter more fully described.

In the accompanying drawing-

Figure 1 represents a longitudinal vertical section of a roof, constructed according to my invention, showing the corrugations and mode of forming the joints.

Figure 2 is a vertical cross-section, showing the fastening-rods.

Similar letters of reference indicate corresponding A represents the wood roof, which is supported by

ribs B in the ordinary manner.

C represents the metallic covering with which the roof is covered.

This covering is composed of sheets of any suitable metal, with their edges corrugated, as seen in fig. 1.

These corrugations are of uniform size and shape,

so that when placed upon the roof and lapped over each other, as seen in the drawing, they fit closely together with the edge of the outside sheet at the bottom of the inside corrugation of the inside sheet. as seen at D, fig. 1.

This formation leaves a central groove, which re

ceives the fastening-rod E.

This rod lies in the groove, and is confined at its ends by screw-nuts, or in any other suitable manner, to the longitudinal cornice-piece F, as seen, or the longitudinal pieces may be dispensed with, and a separate ear or stand may be attached to the roof, through which each end of the rod may pass, and then be secured by screw-nuts, as before stated.

It will be seen that a perfectly water-tight joint is formed while the sheets are held firmly together, and

to the roof, without soldering or nailing.

The sheets may be readily removed for repairs or for substituting others in their places.

By this mode of forming the joint a tight, cheap, and most durable roof is formed, not only for cars, but for other structures.

Having thus described my invention,

I claim as new and desire to secure by Letters

Patent-

The combination of a series of plates, doubly corrugated only on two opposite edges, with a fasteningrod, E, threaded at the ends, and secured to the cornice-pieces by nuts, as shown and described. WILLIAM M. BARRY.

Witnesses:

W. W. Johnson, CORNELIUS FOLEY.