H. ALDRIDGE.

CAR ROOF.

No. 186,188. Patented Jan. 16, 1877.

Fig. 1

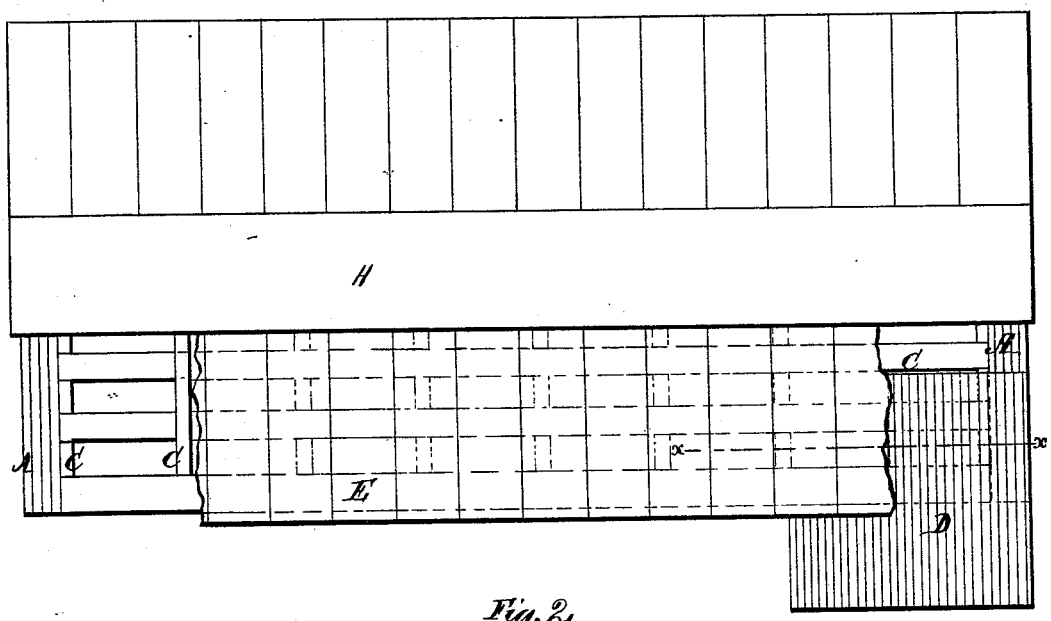


Fig. 2

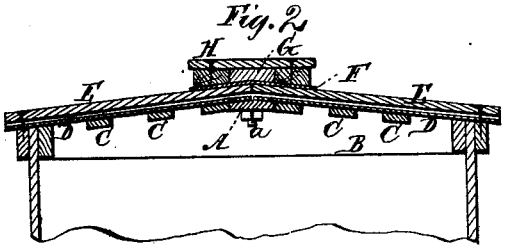


Fig. 4

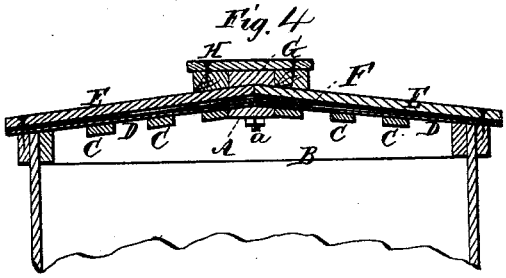
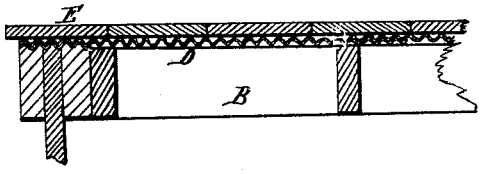


Fig. 3



Witnesses.
James Martin Jr.
W. C. Chaffee

Inventor.
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by Marcus Fenwick & Lawrence.

UNITED STATES PATENT OFFICE.

HIRAM ALDRIDGE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF HIS RIGHT TO MOSES HILLARD, OF SAME PLACE, AND CHARLES W. KEISER, OF JACKSONVILLE, ILLINOIS.

IMPROVEMENT IN CAR-ROOFS.

Specification forming part of Letters Patent No. **186,188**, dated January 16, 1877; application filed December 9, 1876.

To all whom it may concern:

Be it known that I, HIRAM ALDRIDGE, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Car-Roofs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top view of my improved car-roof, showing a portion of the wood and metal covering removed, and also one of the galvanized-iron sheets of the metal covering partly slid out from its proper position. Fig. 2 is a vertical transverse section of the roof as it appears when complete. Fig. 3 is a longitudinal section in the line *x x* of Fig. 1. Fig. 4 is a vertical transverse section, showing a slight modification of the roof, the ridge-joint clamp being shown placed under the wood covering of the roof, instead of on top of it.

This invention relates to car-roofs, made partly of galvanized or other sheet-iron and partly of wood, the portion of iron being arranged upon the superstructure of the car or frame, and the portion made of wood being placed over the metal and fastened in position to the superstructure or frame.

The object of my invention is to make the metal portion of a car-roof of the class above mentioned in sections arranged on top of rafters and under the wood covering, and to have any one of the sections which are thus arranged removable on one side of the ridge without removing any adjoining section, or the ridge-clamp and running-board, or the sections on the other side of the roof—that is, to have the sections removable by simply loosening the joint-clamp and removing the wood covering on that section, or those sections, which require to be removed for repairs or other purposes.

Another object of my invention is to provide the roof made in sections with a ridge-joint cap and a joint-clamp, whereby the roof, while made in sections, is made water-tight, and all the parts mentioned are clamped to the ridge-piece.

Another object of my invention is to make a combined metal and wood roof covering of sections, lapped laterally one upon another, and meeting, or nearly meeting, at their ridge ends, and capable of being removed on either side of the ridge without disturbing the ridge-piece, joint-clamp, and the running-board—that is, removable by simply taking off more or less of the wood covering and loosening the joint-clamp and the respective sections at their eave ends.

Prior to my invention great inconvenience and loss were experienced in repairing this class of car-roofs, as it was necessary to remove the running-board and ridge-cap in order to repair either side of a car-roof; but with my construction the whole of one side of a roof or parts thereof can be repaired without removing the running-board, ridge-cap, and joint-clamp, or any part of the other side of the roof.

In the accompanying drawings, A represents the ridge-piece, B the rafters, and C the purlines of a car-roof; D the metal sheets, and E the wood covering, placed upon the same. The metal sheets D are of galvanized or painted iron, and either corrugated or plain. The sheets are made wide enough to overlap one another upon the rafters, and they are of a length sufficient to extend from the eaves to the ridge of the roof, so that they meet, or nearly meet, as shown in the drawings. E is the sectional wood covering for the roof. This is made of planks placed side by side upon the metal sheets, and meeting at the ridge of the roof, as shown. F is a metal ridge-joint cap, in form of the ridge, and placed centrally over the ridge of the roof. This cap may be of plain or smooth metal when placed on top of the board covering; but if it is placed under the board covering, as shown in Fig. 4, it is to be of corrugated metal, in order to conduct the water into the corrugations of the metal sheets in the event of any leakage occurring through the ridge-joint of the sectional wood covering. G is a ridge-joint clamp, shaped on its under side to conform to the ridge of the roof. This clamp is under the running-board H, and it serves, with the ridge-piece and screw-bolts *a*, as the means by which

the sheets, wood covering, and the joint-cap are held firmly together at the ridge, and thus bolts or other similar fastenings for confining the metal sheets and the wood covering to the superstructure of the car are only necessary at the eaves of the roof.

From the foregoing description and accompanying drawing it will be seen that the loosening of the bolts of the ridge-clamp, and withdrawal of the fastening screws or bolts at the eave ends of the wood covering and the metal sheets, will set everything free, and the covering-boards and metal sheets can be removed on either side of the ridge without removing the running-board, ridge joint-clamp, and metal cap. It will also be seen that the metal cap, together with the lapping of the corrugated metal sheets, will render the roof perfectly water-tight.

I do not, under this application, claim the broad invention of a combined metal and wood roof, the metal and wood portion being made in sections, and any one section made removable on each side of the ridge by removing a part of the wood covering, as this is claimed in another application filed by me on the same date as this was filed.

What I claim is—

1. The sectional metal covering, formed of plates or sheets, which extend up from the eaves to, or near to, the ridge and lap upon one another in the line of the rafters, in combination with the ridge cap and the sectional wood covering, all in such manner that the respective sections of metal covering can be removed on each side of the ridge, substantially as set forth.

2. The combination of the laterally-adjoined sections of metal covering, the sectional wood covering, the ridge-joint clamp, ridge-piece, and the metal ridge-cap, substantially as and for the purpose described.

3. The sectional metal covering formed of a series of sheets, which extend up from the eaves to, or nearly to, the ridge, and arranged upon the top of the rafters and under the sectional woo covering, and the sections thereof having their ridge ends under a joint-clamp, and made removable on either side of the ridge, substantially as and for the purpose set forth.

Witness my hand in the matter of my application for a patent for an improved car-roof this 9th day of December, 1876.

HIRAM ALDRIDGE.

Witnesses:

M. HILLARD,

JAMES MARTIN, Jr.