(No Model.)

J. J. McCARTHY.

ROOF.

No. 483,262. Patented Sept. 27, 1892.

Fig. 1.

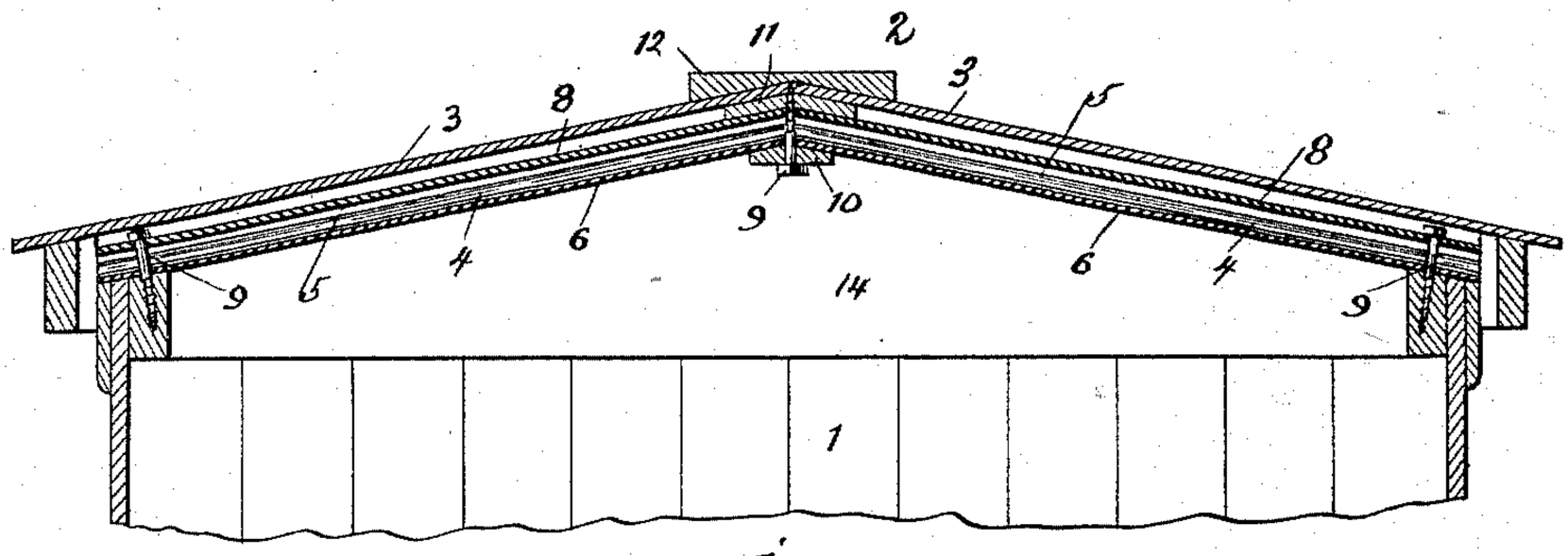


Fig. 2

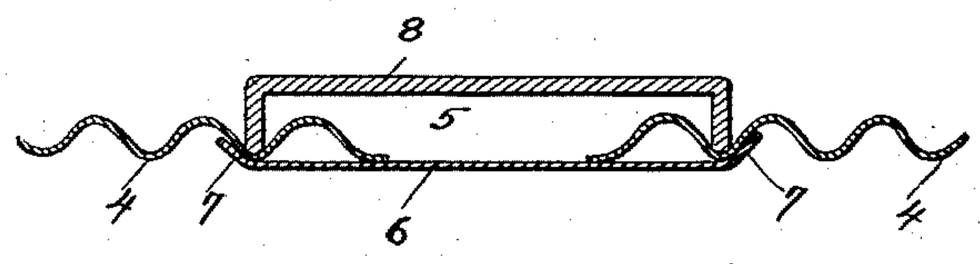


Fig. 3.

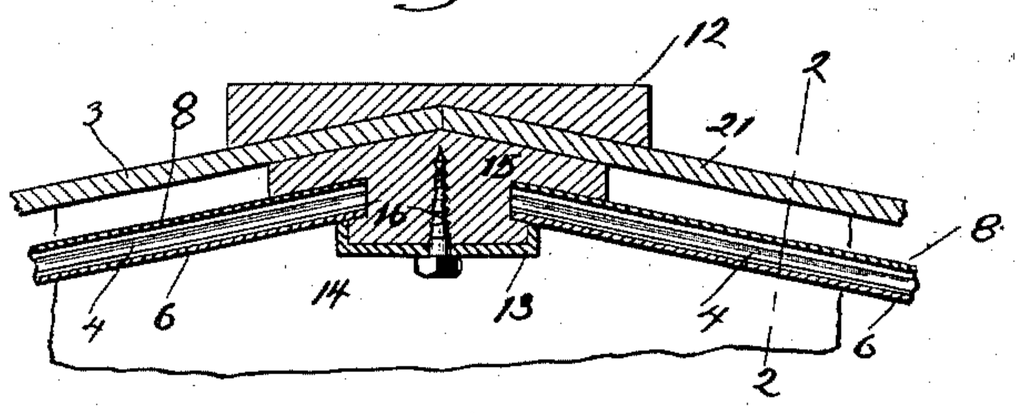
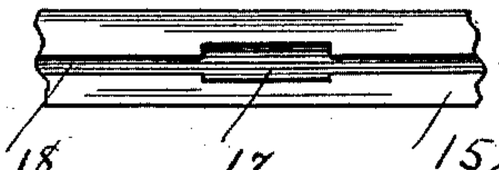


Fig. 4.



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SPECIFICATION forming part of Letters Patent No. 483,262, dated September 27, 1892.

Application filed April 1, 1892. Serial No. 427,407. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. McCARTHY, a citizen of the United States, residing at Austin, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Roofs, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical cross-section of a car-roof. Fig. 2 is an enlarged detail, being a section on line 2 2 of Fig. 3. Fig. 3 is an enlarged detail, being a vertical cross-section of a portion of a car-roof, showing a modification; and Fig. 4 is a side view of a portion of the ridge-pole.

My invention relates to roofs, and more particularly to metal roofs commonly used on freight-cars, and is in some respects an improvement on the car-roof shown in Letters Patent of the United States No. 248,905, dated November 1, 1881, granted to H. Aldridge.

The object of my invention is to improve and simplify the construction of roofs of this class, which object I accomplish as hereinafter specified, and as illustrated in the drawings.

That which I regard as new will be pointed out in the claims.

In the drawings, 1 indicates a car.

2 indicates the roof of the car, which consists of an outer wooden covering 3, under which is a covering formed of corrugated-iron sheets 4. I prefer to use sheets of corrugated iron; but plain iron sheets may be used, if desired. The corrugated-iron sheets are held in position by carlings 5, which extend transversely of the roof of the car, as best shown in Fig. 1. Each carling is composed of an under plate 6, which is in general flat, with upturned edges, and extends from the eaves of the car on one side across the car to the eaves on the opposite side. The plates 6 are each provided with upturned edges 7, as best shown in Fig. 2. The upper portion of each carling consists of a channel-bar 8, which is inverted over the under plate 6, as best shown in Fig. 2, the channel-bar being of sufficient width to fit properly between the upturned edges 7 of the under plate 6, as shown. The channel-bars 8 also extend from the eaves on one side of the car to the eaves on the opposite side, as shown in Fig. 1. The edges of the corrugated-iron plates are secured between the channel-bars 8 and plates 6, as best shown in Fig. 2. The plates 6 and channel-bars 8 are held together and to the roof of the car by means of bolts or spikes 9, which pass through the channel-bar 8 and plate 6 into longitudinal bars at the eaves of the car. The carlings are supported at the center upon a longitudinal bar 10, over which is a usual ridge-pole 11, as shown in Fig. 1, and an ordinary foot-board 12 is placed over the ridge-pole. I do not wish to limit myself to extending the under plates 6 and channel-bars 8 continuously across the car from one eaves to the other, as they may be divided centrally, if desired. I prefer, however, to make them continuous, and when so constructed the form of ridge-pole above described is preferred. When, however, they are divided at the center, as suggested, instead of a ridge-pole constructed as described I prefer to use the following construction:

13 indicates a channel-bar, which extends longitudinally of the car, under the ridge-pole, being supported by the usual cross-timbers 14, as best shown in Fig. 3.

15 indicates a T-shaped ridge-pole, the lower portion of which is adapted to fit into the channel-bar 13, as shown in Fig. 3. Suitable sockets 17 are provided in the sides of the ridge-pole 15, which receive the ends of the carlings and prevent them from moving out of place. A slot 18 is provided for receiving the edge of the plates 4. The ridge-pole is rigidly secured to the channel-bar 13 by means of screws 16 or other suitable means. The parts are so arranged with relation to each other that the ridge-pole will hold the carlings firmly in position over the edges of the channel-bar 13. Carlings similar to the carlings 5 are used, except that they do not extend continuously from one eaves of the car to the other.

By the arrangement of carlings and ridge-poles above described the construction of the roofs is much simplified and they may be manufactured much stronger than heretofore.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. In a roof, the combination, with a plate 6, having upturned edges 7, of a channel-bar

8, inverted over said plate 6 and secured thereupon, and plates 4, having their edges secured between said plate 6 and channel-bar 8, substantially as described.

2. In a roof, the combination, with a longitudinally-extending channel-bar 13, of a ridge-pole 15, the lower portion of which is adapted to fit into said channel-bar, and carlings having their ends secured between said ridge-pole and channel-bar, substantially as described.

3. In a roof, the combination, with a longitudinally-extending channel-bar 13 and a T-shaped ridge-pole 15, the lower portion of which is adapted to fit into said channel-bar, of carlings the ends of which are adapted to fit between the lateral portions of the ridge-pole and the edges of the channel-bar and means for securing said ridge-pole to said channel-bar, substantially as described.

JAMES J. McCARTHY.

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