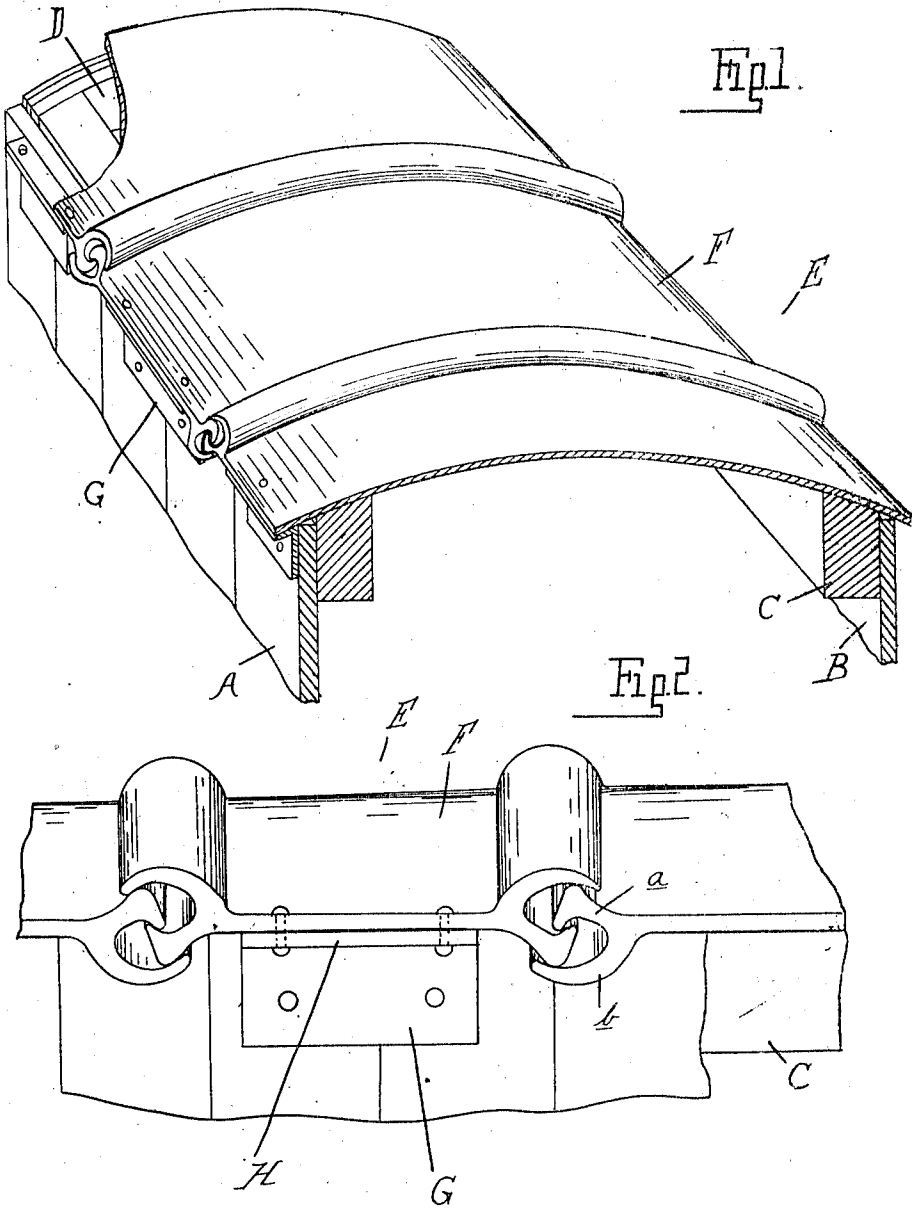


C. PHILLIPS.
CAR ROOF.
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1,096,944.

Patented May 19, 1914.



Witnesses
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UNITED STATES PATENT OFFICE.

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CAR-ROOF.

1,096,944.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, COLUMBUS PHILLIPS, a citizen of the United States of America, residing at Meridian, in the county of Lauderdale and State of Mississippi, have invented certain new and useful Improvements in Car-Roofs, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates particularly to freight car roofs, and has for its object the production of a roof of this character formed solely of metallic plates extending from eave to eave of the car and supported
15 upon the sides thereof, the plates being of sufficient rigidity to form cross connections between the car sides, thus eliminating the use of carlines and purlins forming the usual substructure.

20 The invention consists in the novel construction of a freight car roof of this particular type, in the peculiar arrangement and combination of its parts, and in various details of construction, as will be more fully
25 hereinafter set forth and claimed.

In the drawings,—Figure 1 is a sectional perspective view of a car roof embodying my invention; and Fig. 2 is a side elevation of the roof structure.

30 In the drawings thus briefly described, A and B represent the car sides, C the usual side plates at the upper edges thereof, and D the end plates.

The roofing E is composed of a series of transversely extending metallic plates, as F, projecting from side to side of the car and extending beyond each side plate, as shown, these plates being formed preferably of steel and of a tensile strength sufficient to properly connect or tie the car sides, performing the function of the usual substructure. The marginal portion of each plate is formed with a pair of flanges *a* and *b* extending in relation to each other and to the web or body
45 of the plate in such manner as to form a jaw, and the jaws of adjoining plates are adapted to interlock, as plainly shown in

Fig. 2, forming a tie between the plate sections and likewise a weatherproof joint.

Connections are formed between the projecting portions of the plates at the eaves and the car side in such manner that the roofing may form the tie connection before set forth and at the same time leakage will be prevented. The connections are preferably made by a series of angle plates, G, upon each side of the car, arranged one for each metallic sheet, and secured to the car side beneath its eave flange, as shown in Fig. 2. The laterally projecting section H of the angle clip may be bolted to the eave portion of its roof plate, as shown.

As thus constructed, it will be readily apparent that the interlocking plates constitute the roofing, and at the same time the proper connection between the car sides, whereby the usual substructure heretofore employed is entirely dispensed with and the cost of production decreased accordingly.

What I claim as my invention is,—

1. A car, having its roof formed solely of adjoining metallic plates extending from eave to eave of the car and connecting the sides, said plates having upper and lower flanges formed integral with their adjoining marginal portions, the lower flange of one plate loosely interlocking between the flanges of the adjoining plate, and the upper flange of the first plate overlapping the upper flange of the second plate forming a flexible weatherproof joint.

2. A car having its roof formed wholly of adjoining metallic plates, said plates having upper and lower flanges formed integral with their adjoining marginal portions, the lower flange of one plate loosely interlocking between the flanges of the adjoining plates, and the upper flange of the first plate overlapping the flange of the second plate, forming a flexible weatherproof joint.

3. A car roof formed of a plurality of self-sustaining load-supporting plates, the marginal portions of said plates interlocking to form a weather proof joint permitting

of relative movement between adjacent plates.

4. A flexible car roof formed solely of self-sustaining load-supporting plates having weather proof joints at their adjacent edges permitting of relative movement between adjacent plates.

5. In a flexible car roof, a plurality of relatively movable load-supporting sheets, and

reinforcing portions fixed in relation to one sheet and movable relative to an adjacent sheet.

In testimony whereof I affix my signature in presence of two witnesses.

COLUMBUS PHILLIPS.

Witnesses:

H. E. WADSWORTH,
PHIL. DROSS.