

G. VERMEULEN.
CAR ROOF.
APPLICATION FILED AUG. 6, 1912.

1,057,511.

Patented Apr. 1, 1913.
2 SHEETS—SHEET 1.

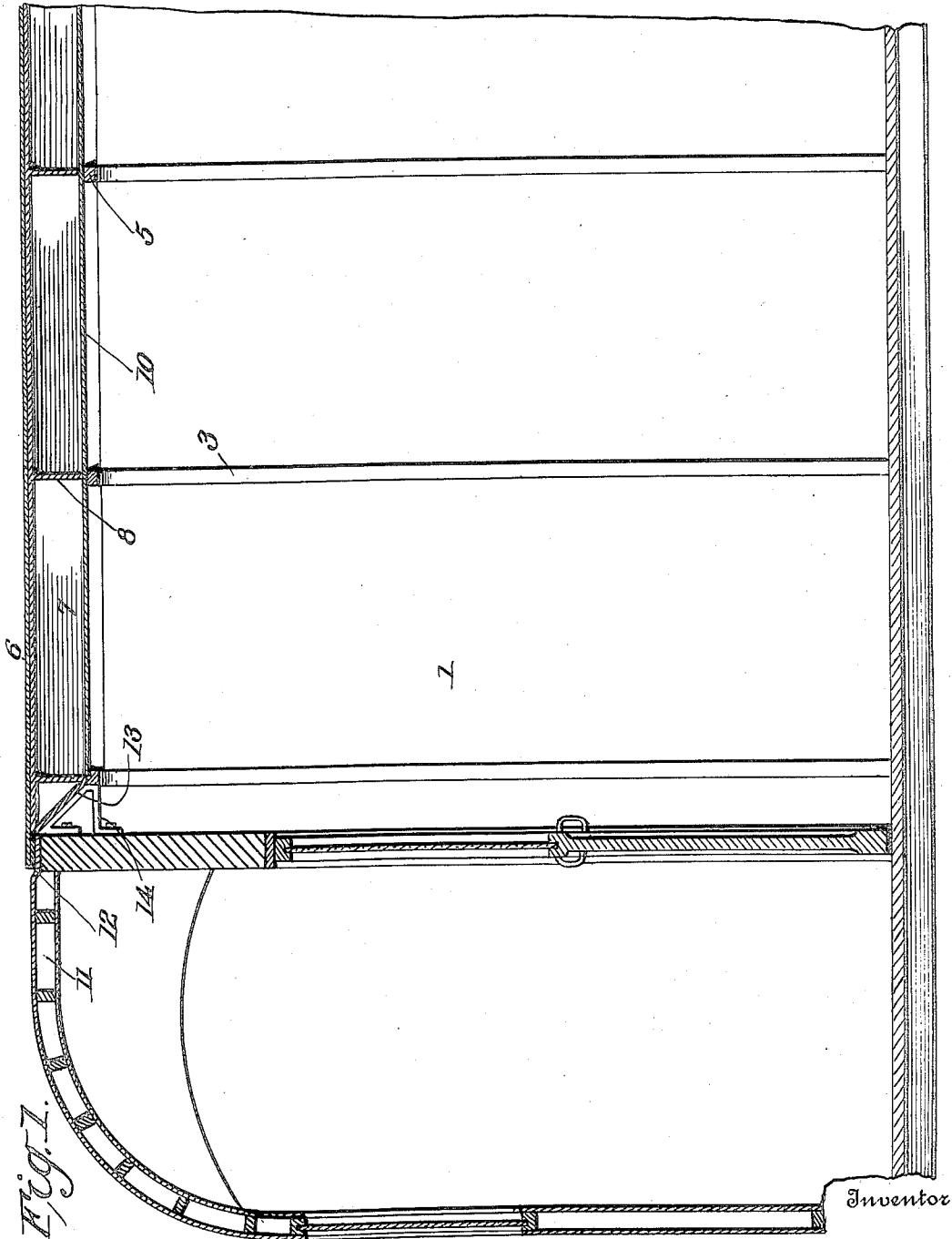


Fig. 1.

Witnesses

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Fig. 2.

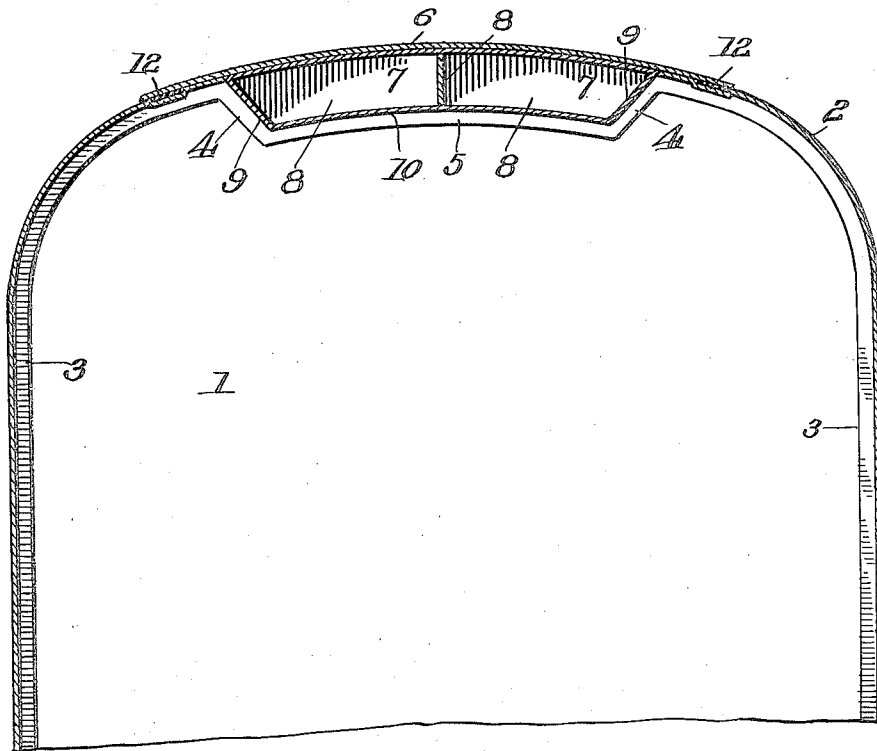
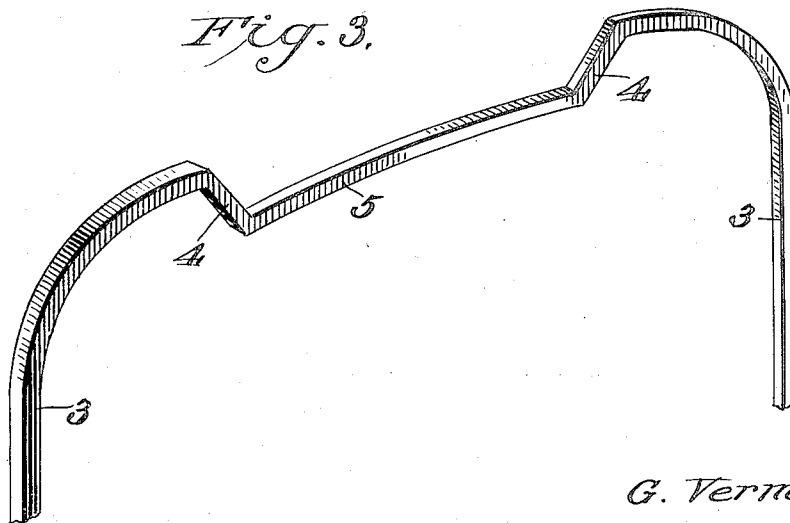


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE VERMEULEN, OF BELLINGHAM, WASHINGTON.

CAR-ROOF.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE VERMEULEN, citizen of the United States, residing at Bellingham, in the county of Whatcom and State of Washington, have invented certain new and useful Improvements in Car-Roofs, of which the following is a specification.

This invention has for its object the provision of means whereby in the event of accident, railway passengers will be afforded a ready means of escape from the coach in which they may be riding so that the loss of life will be prevented.

With this object in view, the invention consists in providing a detachable roof which will be so constructed that it will readily free itself from the body of the coach should the coach be derailed or overturned.

The invention is illustrated in the accompanying drawings and will be hereinafter fully described, the novel features subsequently being more particularly pointed out in the claims following the description.

In the drawings: Figure 1 is a longitudinal vertical section of my improved roof showing its application to a passenger coach; Fig. 2 is a transverse vertical section of the same; Fig. 3 is a detail perspective of a portion of one of the supports for the roof.

The car 1 is of the usual construction except that the roof 2 thereof is not extended entirely across the same but terminates short of the central longitudinal line thereof so as to provide a central longitudinal opening extending between the vestibuled ends of the car. Within the car are provided a plurality of transverse steel ribs or arches 3 which extend up the sides of the car and across the top thereof and have their central portions off-set downwardly to provide seats consisting of side bars 4 and a cross bar 5 connecting the said side bars, the said side bars depending from the main top portions of the arches or ribs, as clearly shown. The seats are so proportioned that the upper ends of their side bars will lie flush with the edges of the central opening in the car roof, and within the said central opening and resting upon the said seats is my improved detachable roof consisting of an upper plate 6 and a plurality of air compartments 7 on the under side of the said top plate. The air compartments are defined by

partitions 8 and side walls 9 depending from the top plate 6 and a bottom plate 10 extending between the lower edges of the side walls 9 and across the lower edges of the partitions 8. The said partitions extend both longitudinally and transversely of the roof, and all of the joints are closed by brazing or otherwise so that leakage of air cannot occur. The edges of the top plate or cover 6 project beyond the side and end walls of the air compartments so as to rest upon the fixed roof 2 and upon the vestibule roofs 11, as clearly shown, and the projecting portions may be equipped with rubber or other gaskets 12 to prevent the entrance of water under the detachable roof and into the car.

The end walls 13 of the air compartments at the ends of the detachable roof are inclined, as clearly shown in Fig. 1, to rest upon triangular projections 14 built upon the end walls of the car or upon the vestibules of the same, and the side walls of the air compartments are likewise inclined inwardly and downwardly, this construction facilitating the entrance of the air compartments through the opening in the fixed roof of the car body when the parts are being assembled.

It is thought that the advantages of my device will be readily understood from the foregoing description taken in connection with the accompanying drawings. The air compartments of the detachable roof impart buoyancy thereto so that if a coach should be derailed by any cause and drop into a body of water, the detachable roof will float off from the car thereby leaving an opening in the top of the car through which the passengers may escape. Moreover, the buoyancy of the detachable roof will permit it to be utilized as a raft upon which the passengers may ride to safety. Should the coach be overturned or be caught in a land or snow slide, the detachable roof will be thrown from its position and the passengers may then pass out through the fixed roof of the car. Should the coach be caught in a collision which would tend to dismember the car, the impact of the colliding cars will cause the triangular projections 14 to immediately shove the detachable roof upward from its position so that a means of egress will be provided for the passengers.

The device may be made of any dimen-

sions or shape so as to be applied to any style of car, and may be produced at a low cost.

By providing a plurality of air compartments the buoyancy of the roof is insured inasmuch as injury to one compartment will not affect the others and the liability of all the compartments being destroyed at one time is so slight as to be negligible.

10 Having thus described my invention, what is claimed is:

1. The combination of a car roof having a central opening, arches supporting said roof and extending across said opening provided at their centers with seats disposed below said opening, a cover resting upon the said roof, and sealed air compartments carried by said cover and passing through

the opening in the roof to fit upon the said seats.

2. The combination of a car roof having a central opening, transverse arches within the car supporting said roof and having upper depressed portions extending across said opening below the same, a cover resting upon the roof, and sealed air compartments carried by said cover and passing through the opening in the roof to fit upon the depressed portions of the arches.

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

GEORGE VERMEULEN. [L. s.]

Witnesses:

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