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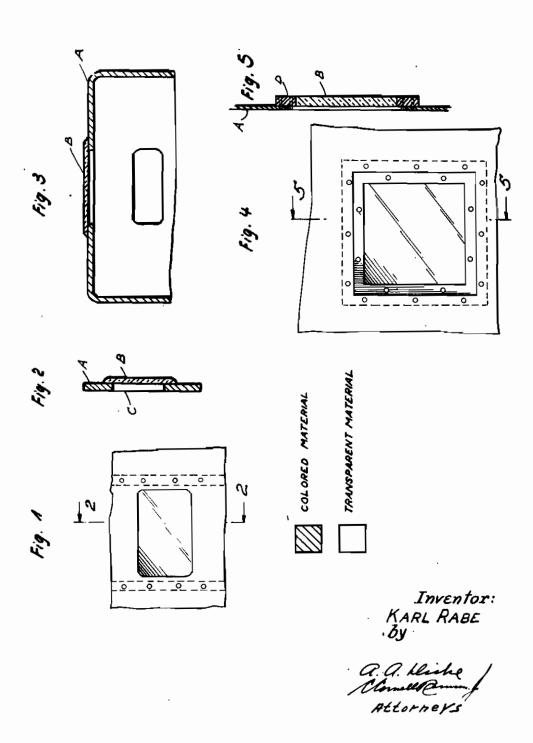
K. RABE

VEHICLE BODIES

Filed March 9, 1938

Serial No. 194,754

2 Sheets-Sheet 1



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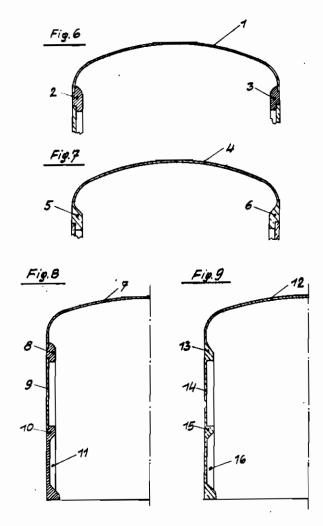
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2 Sheets-Sheet 2



Inventor: KARL RABE By A.A. Lliche Mondle Comments Attorneys

ALIEN PROPERTY CUSTODIAN

VEHICLE BODIES

Karl Rabe, Stuttgart-N, Germany; vested in the Alien Property Custodian

Application filed March 9, 1938

This invention relates to vehicle bodies and is particularly directed to such bodies formed of artificial resin or the like.

An object of this invention is the formation of an improved vehicle body made of artificial resin.

Another object of this invention is the provision of a vehicle body formed of colored and transparent artificial resin.

A further object of this invention is the pro- 10 vision of a vehicle body in which all of the usual transparent parts are formed of transparent artificial resin.

A still further object of this invention is the provision of vehicle body parts formed of a sin- 15 gle integral sheet of artificial resin, part of which is opaque and part of which is transparent,

Other objects will become apparent from the following description taken in connection with the attached drawings showing several illustrative embodiments of the invention and wherein:

Fig. 1 is a side view of a portion of a vehicle body formed according to this invention;

Fig. 2 is a cross-sectional view of the body portion illustrated in Fig. 1;

Fig. 3 is a cross-sectional view of a portion of a vehicle body made in accordance with the principles of this invention;

Fig. 4 is a side view of a portion of a vehicle body illustrating still another manner in which :"9 the construction according to this invention may be carried out:

Fig. 5 is a cross-sectional view of the body portion illustrated in Fig. 4;

Fig. 6 is a cross-sectional view illustrating the 35 manner in which portions of the vehicle body may be connected together;

Fig. 7 is a view similar to Fig. 6 illustrating a modified form of construction;

Fig. 8 is a cross-sectional view of half a ve- 40 hicle body showing the manner in which the vehicle roof may be interconnected with its sides;

Fig. 9 is a cross-sectional view similar to Fig. 8 illustrating another manner in which the vehicle 45 roof and sides may be interconnected.

Attention is directed to the fact that throughout the drawings colored or opaque artificial resin has been designated by cross-hatching, whereas transparent artificial resin is indicated by the ab- 50 sence of such cross-hatching.

Figs. 1 and 2 illustrate one manner in which my invention may be applied to vehicle bodies. The cross-hatching section A indicates the usual body portion formed in this case of colored or 55 parent roof 4, a complete integral structure.

opaque artificial resin. The usual and necessary window in the vehicle is formed by covering the opening C of the body portion A with a plate of transparent artificial resin indicated at B. The plate of transparent artificial resin may be connected in any suitable manner to the main body portion A. In the embodiment illustrated in Figs. 1 and 2, such connection is made on two sides of the window.

Fig. 3 illustrates a manner in which the principles of this invention described with respect to Figs. 1 and 2 may be applied to the roof of a vehicle body. The body portion A extending upwardly as forming the sides of the vehicle is curved inwardly to form a part of the roof. A suitable opening is formed in the roof which is covered by means of transparent artificial resin indicated at B.

Figs. 4 and 5 illustrate another manner in which a plate of transparent artificial resin may be applied to a body of opaque artificial resin to form windows in a vehicle body. The reference character A again indicates the body portion of colored or opaque artificial resin while the reference character B is the plate of transparent artificial resin. The latter is formed in this case with an outer rim D of opaque material which is suitably interconnected with the main body portion A. The plate of transparent material is shown as mounted inside the vehicle body although it is obvious it might be mounted upon the outside.

Fig. 6 illustrates another application of my invention in which the entire roof I of the vehicle is formed of transparent artificial resin. This construction is extremely advantageous for vehicles such as sight-seeing buses in which it is desirous that the passengers be able to obtain an unobstructed view both laterally and upwardly while at the same time being protected from the weather. As shown in Fig. 6, the transparent roof portion I is suitably curved downwardly at the sides and firmly connected to the sides of the vehicle body indicated at 2 and 3. In order that the outside of the vehicle may present a smooth exterior both for the sake of appearance and for lessening the wind resistance of the vehicle, the body sides are formed with a cut-out portion, as shown, into which the curved ends of the roof are placed, the outer surface of curved ends thereby being flush with the sides of the vehicle.

In Fig. 7 the use of transparent artificial resin is extended to the sides 5 and 6 of the vehicle body, these sides forming together with the trans-

Fig. 8 illustrates a further form of this invention and shows the manner in which the vehicle windows of transparent artificial resin are positioned in a frame of opaque artificial resin. In this modification the transparent roof 7 is bent downwardly and interconnected with the opaque frame portion 8 in a manner similar to that shown in Fig. 6. The opaque frame member 8 has two cut-out portions, one for receiving the end of the roof member 6 and a second to receive 10 a plate of artificial resin 9 forming the vehicle window. In addition, the further frame member 10 of opaque material is also cut out to receive the lower end of the plate 9. The frame section 10 is integrally interconnected with the further frame portion () to form the sides of the vehicle. It will again be noted that in this form of the invention the exterior surface of the vehicle body is formed without any protruding parts, thus presenting a surface which is both neat in appearance and one which offers a minimum of wind resistance.

The construction illustrated in Fig. 9 is similar to that shown in Fig. 8; in this form however, all of the parts being made of transparent artificial resin. The parts 12, 13, 14, 15, and 16 correspond with the parts 7, 8, 9, 10, and 11 of Fig. 8. While not apparent from the view shown in Fig. 9, the joint between the transparent roof 12 and the transparent body side 13 may be filled with some neutral mass of material in order to preserve the smooth outer surface.

From a study of the above the advantages of this invention will be readily apparent. In vehicle bodies up to now the windows have been govered either with dangerous shatterable glass or expensive special or compound gloss. In order to mount glass in vehicle bodies special fastenings such as rubber, leather felt, or other resilient materials must be used. By the use of 40 this invention, the glass plates may be entirely

replaced by plates of transparent artificial resin. As this material is extremely strong and comparatively unbreakable, the dangers of shatterable glass or the expense of special glass is eliminated. In addition, no special mounting means or methods need be used.

Another advantage of this construction, as is shown in the forms illustrated, is that a completely smooth outer surface of the vehicle body is obtainable.

Although it has not been illustrated, it is obvious that my invention is adapted to further uses in vehicle bodies. For example, it is entirely within the scope of this invention to form a curved windshield of transparent artificial resin which may be made integrally with or firmly connected to the remainder of the vehicle body. In addition, the front roof supports or columns may be made of transparent material, thereby increasing the field of vision of the driver and eliminating the so-called "blind spots."

A further advantage of my construction is that since artificial resin plates can be colored in almost any desired color, special painting of the vehicles is eliminated. If any impurities occur on the outer surface of the vehicle they can be readily corrected by merely polishing. In case a portion of the vehicle body is seriously injured or broken, all that is necessary is to insert a new plate of artificial resin, thereby accomplishing repairs in a very short time as contrasted with similar epairs to bodies formed of wood or metal. will be understood that the principles of this invention can be advantageously used for all types of vehicle construction such, for example, as passenger cars, racing cars, rail, air, and water vehicles. It can also be used for the covering of motorcycles and the formation of bodies for horse-drawn vehicles.

KARL RABE.