

PATENT SPECIFICATION

200,064

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Complete Accepted: Nov. 8, 1923.



COMPLETE SPECIFICATION.

Improved Structure for Motor Cars.

We, LANCIA & C., of 99, Via Monginevro, Turin, Italy, Italian company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to motor cars in which the axles are interconnected by a body which at the same time acts also as a frame, and has for its object a body structure comprising two sides of sheet metal interconnected by cross bars and having secured thereon the engine and the transmission and suspension means.

A construction of the present invention is shown by way of example in the accompanying drawings, and

Figure 1 is a longitudinal section of the body structure;

Figure 2 is a plan view;

Figure 3 is a detail view in plan of the rear portion showing the case for the folding hood;

Figure 4 is a transverse section on X—X of Figure 1 and

Figure 5 is a transverse section on Y—Y of Figure 1.

The body structure comprises two sides 1 of sheet metal, preferably having openings 2 for reducing their weight, said sides being bent to obtain the desired shape both in plan and in transverse direction. Said sides extend from end to end of the vehicle and are shaped in such a manner as to have a reduced height in the forward end portion 3 occupied by the engine 4, and other devices such as the change speed gear 5, which are located on bars 6 carried by transverse bars fastened to the sides (see Figures 2 and 5).

The sides 1 have a greater height in their rear portion in register with the body space, having at these points large

top recesses 7 for reception of the doors.

The two sides 1 are interconnected at their front end by a frame 8 intended to receive the radiator, a transverse bar 9 on which abuts the edge of the engine bonnet, and a cross bar 10 in register with the front seat.

The interconnection of the two sides 1 is completed by two metal plates 11 which provide the supports for two seat backs and have their side edges fastened to said sides as shown by Figure 4. In a similar manner with the two sides 1 are connected two metal plates which provide the support for the seats, and other parts extending transversely to the body may consist of sheet metal for interconnecting the sides 1. Thus, by way of example, the case in which the hood is enclosed when it is out of use, may consist of a case of sheet metal whose sides 12 are fastened to the top edges of the sides while the central body 13 extends across the body.

At their rear ends the sides 1 are further connected by a channel 14 which receives the rear axle, said channel being connected with a channel 15 extending along the axis of the body for providing a space for the driving shaft.

The frame 8, the transverse bars 9 and 10, the plates 11 of the backs, the channel 14, the case 12—13 for the hood, and the other metal plates connected with the sides 1 provide with these latter a rigid structure which forms the body skeleton as well as the vehicle frame to which are secured the engine, and the transmission and suspension means.

The sheets forming the sides 1 are provided with upturned portions 16 along their edges and along the edges of the openings 2, while along their lower edge there is an inward flange 17 on which the bottom 18 is supported.

The bottom is therefore located in

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- the lowest portion of the structure, the body being thus near to the ground and under the plane lying through the wheel axes, the driving shaft being received in the channel 15 extending along the axis of the structure.
- On the outer portion of the structure consisting of the sides 1, are secured the sheets providing the body shell.
- Of course, the described construction may be used in connection with the structures of motor cars of a type and construction different from that illustrated by way of example in the annexed drawing, and in any case it gives the advantage that the frame and the wood portion of the body are omitted, a lighter metal structure having all the requisite strength being substituted therefor.
- Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—
1. A structure for motor cars in which the body skeleton is combined with the frame, characterised by the fact that it consists of two sides of sheet metal having a reduced height in the portion in register with the engine and a greater height in the portion in register with the seats, these sides being interconnected by transverse bars and by the transverse members required for constituting the vehicle.
  2. A structure according to Claim 1, characterised by the fact that the sides and, if desired, also the transverse bars, consist of metal sheets having openings and upturned portions along their edges, in order to provide a rigid skeleton.
  3. A structure according to Claim 1, characterised by the fact that the sides have an inwardly turned portion along their lower edge for supporting the bottom, while along the axis of the structure is provided a channel receiving the driving shaft which is at a level above that of the lower edge of each side.
  4. A structure according to Claim 3, characterised by a channel in which is located the rear axle and having its ends connected with the two sides.
  5. A structure according to Claim 1, characterised by the fact that the back supports are provided by metal plates connected at their end edges with the sides of the structure.
  6. A structure according to Claim 1, characterised by the fact that at the front end the two sides are secured to a frame intended for the mounting of the radiator.
  7. A structure according to Claim 1, characterised by the fact that the case for the hood consists of a sheet metal box comprising two sides which are secured to the upper edges of the two sides and of a body extending transversely between the same sides.
- Dated this 1st day of May, 1923.  
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[This Drawing is a reproduction of the Original on a reduced scale.]

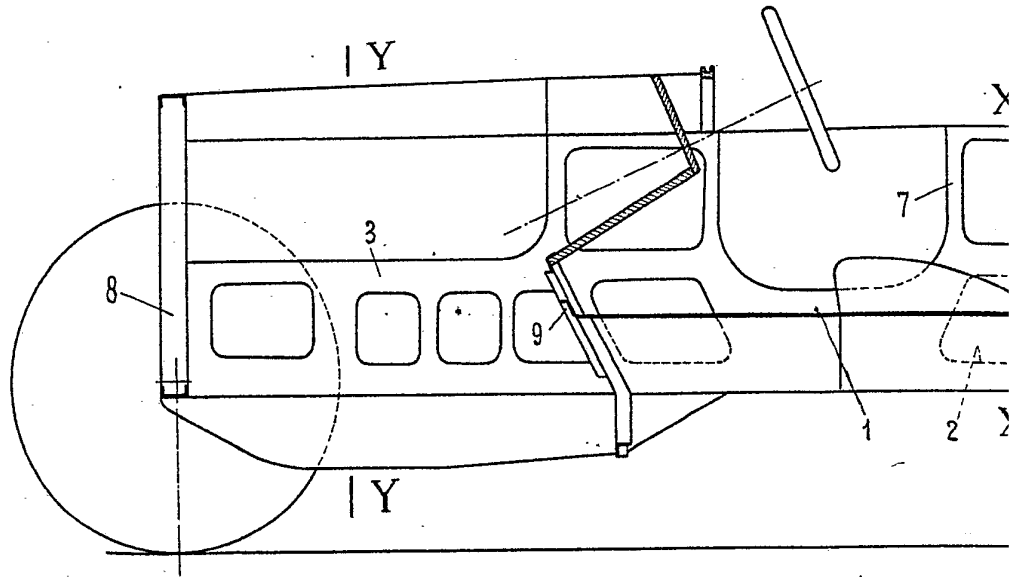


FIG. 2

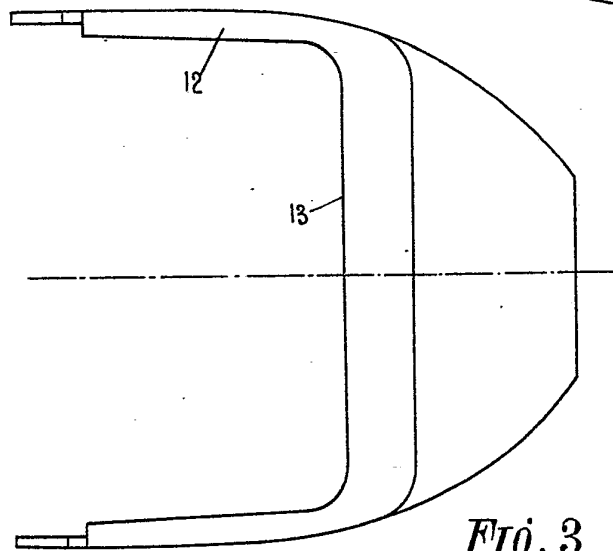
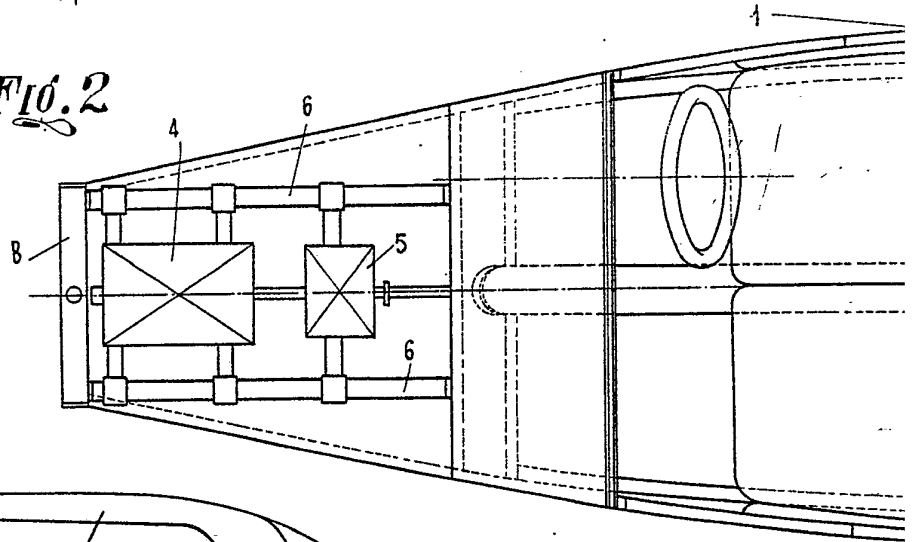
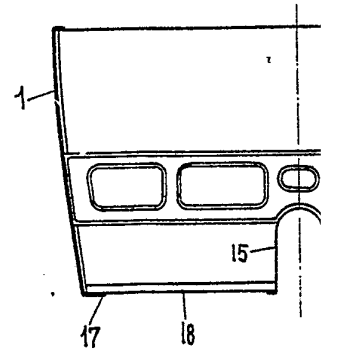
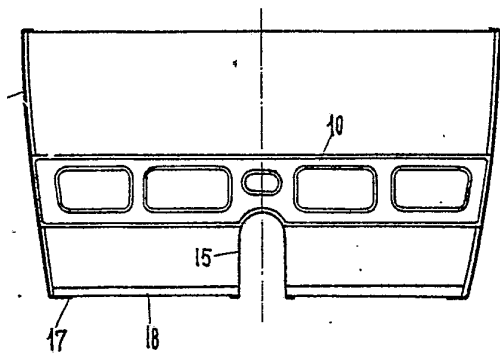
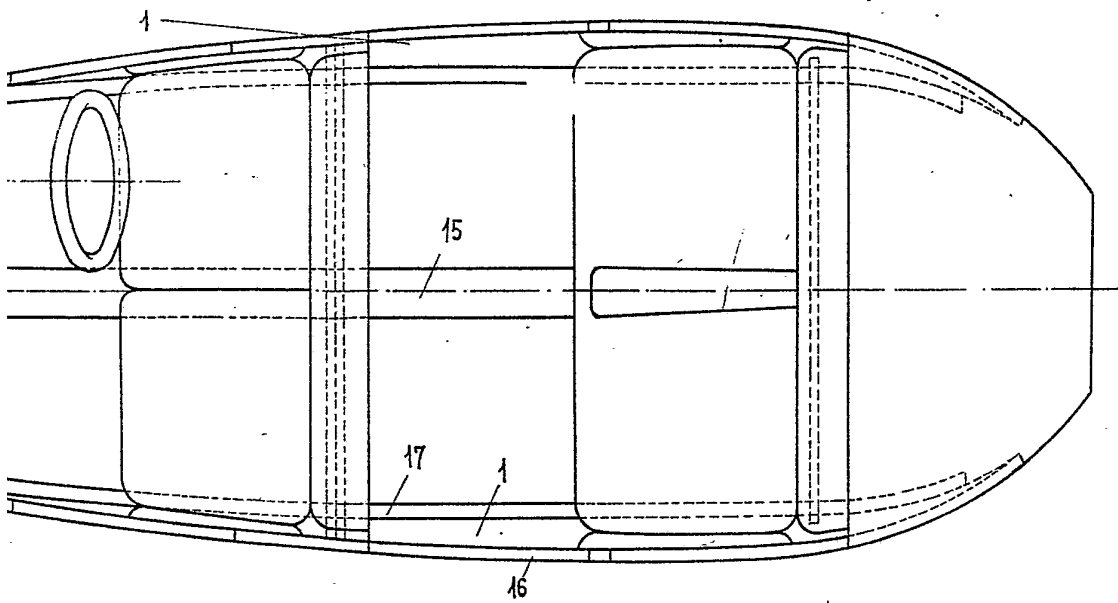
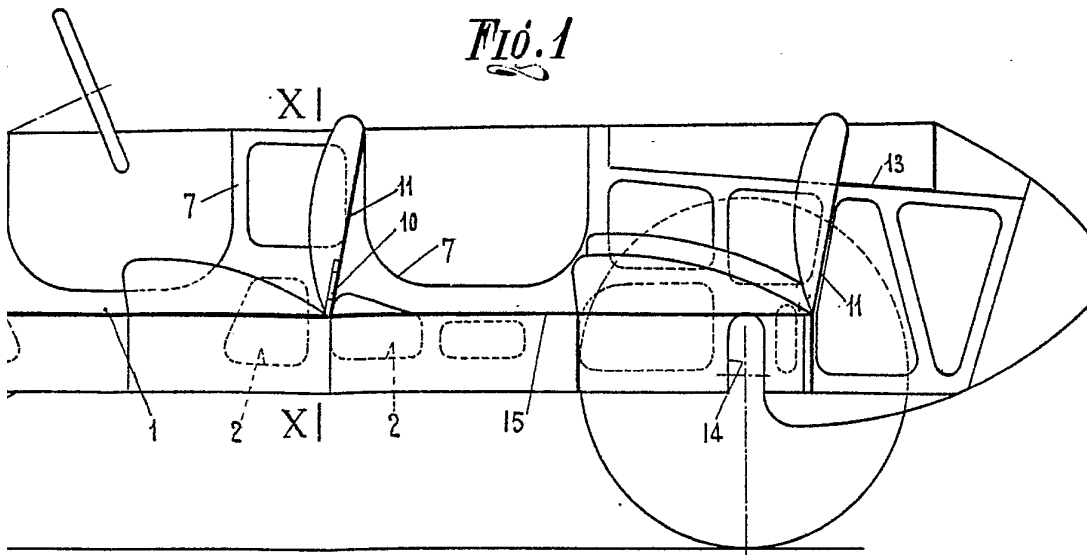


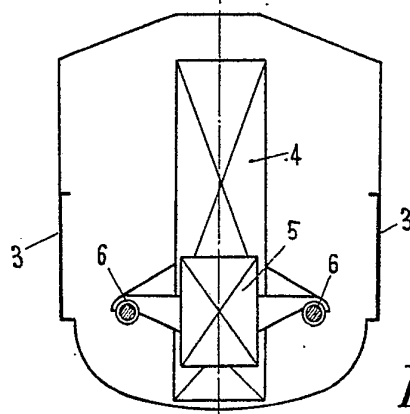
FIG. 3



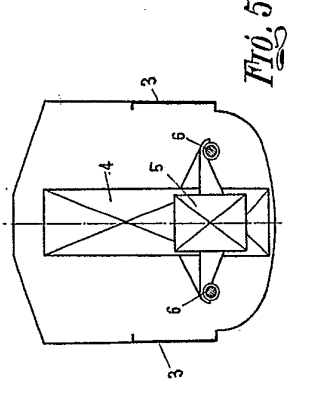
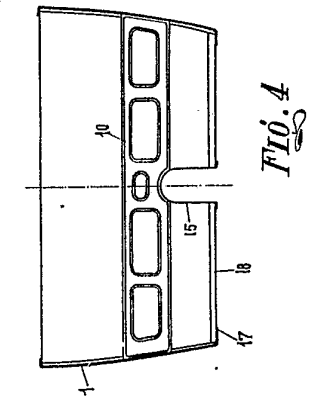
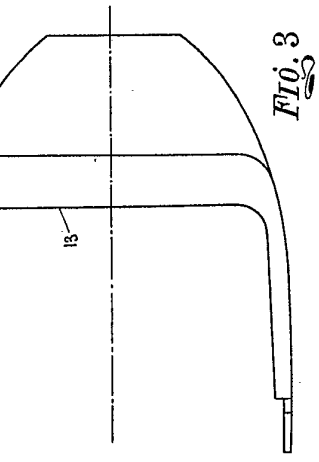
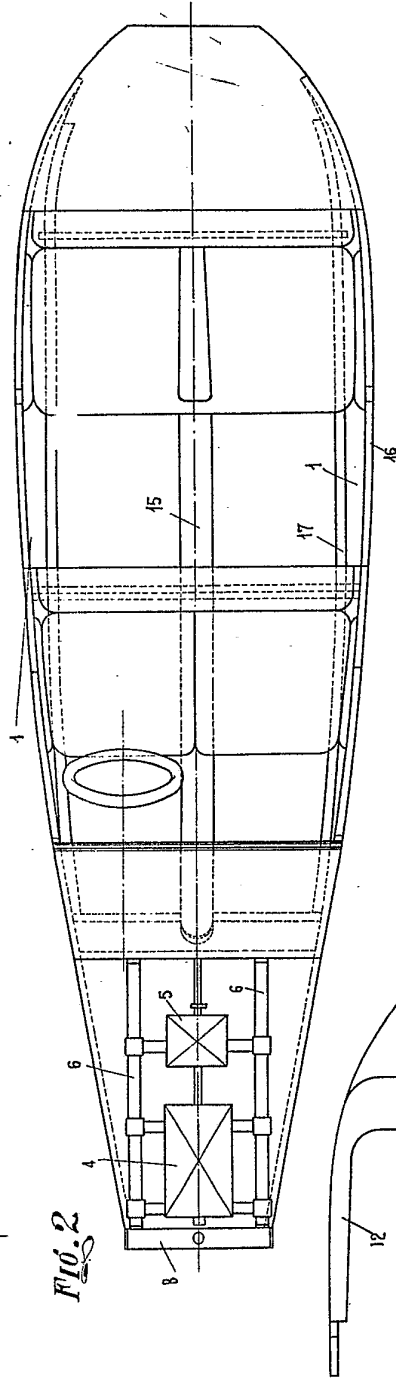
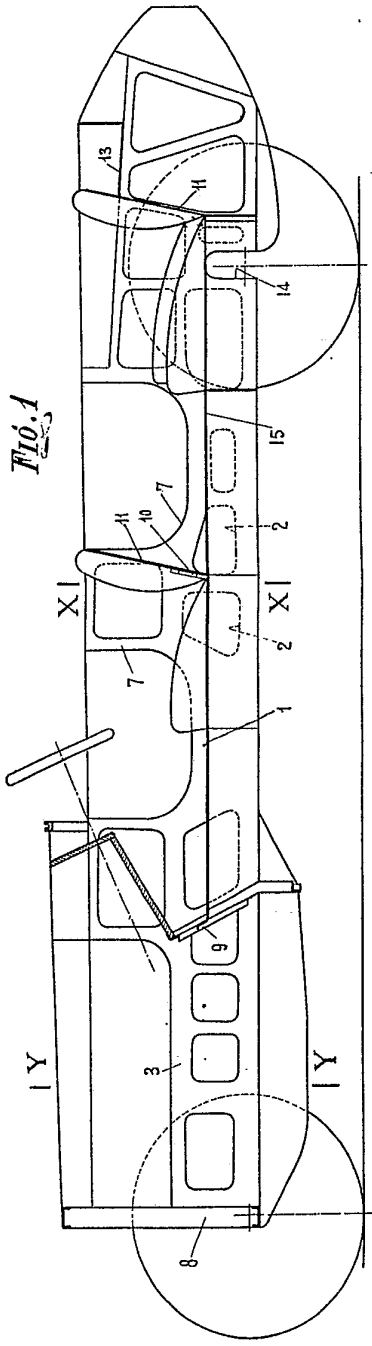
*FIG. 1*



*FIG. 4*



*FIG. 5*



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