

PATENT SPECIFICATION

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DRAWINGS ATTACHED.

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COMPLETE SPECIFICATION.

Improvements in or relating to Model Vehicles.

We, MECCANO LIMITED, of Binns Road, Liverpool 13, a British Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to model vehicles and is more particularly concerned with the provision of hinges in association with openable parts of the vehicle.

Model vehicles have now reached a high degree of sophistication with openable windows, doors, boot lids, bonnets and so on. All these assist in the production of a realistic model but do, of course, increase the cost of production. Therefore any steps which enable any of the above features to be provided more cheaply is an important advance in a business which is highly competitive.

The object of the present invention is to provide an easily manufactured and cheap hinge for the openable parts of model vehicles.

According to the invention, the hinging effect is obtained by the use of a two-part hinge member formed of a molding of polypropylene or other plastics material having similar properties, the thickness of the material being reduced along the hinge line between the two parts.

It is known that polypropylene when injection moulded under suitable conditions has a flexible characteristic so that by reducing the thickness of the material along the hinge line, a hinging effect is obtained and the hinge member may be rotated relative to the fixed portion of the vehicle along the hinge line.

According to a feature of the invention, the hinging effect is obtained by the use of a

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two-part hinge member formed of a moulding of polypropylene or other plastics material having similar properties, and one part of the hinge member is a fixed portion of the vehicle, the thickness of the material being reduced along the hinge line between the two parts.

The invention will be better understood from the following description taken in conjunction with the accompanying drawings comprising Figs. 1 to 3. In the drawings,

Fig. 1 shows one form of hinge member,

Fig. 2 shows a perspective view of part of a model vehicle provided with a hingeable door, and

Fig. 3 shows a sectional view of a part of a model vehicle provided with a hingeable boot lid and bonnet.

Referring first to Fig. 1, the hinge member consists of two parts 10 and 11 which are joined along the hinge line 12, the whole being moulded in polypropylene or other plastics material having similar properties to polypropylene. The thickness of the material along the hinge line is considerably reduced compared with the thickness of the two parts 10 and 11 to produce the hinge effect. In the particular embodiment shown, the hingeable portion 13 of the model vehicle, which may be a door, bonnet or boot lid, is secured to the part 10 in any suitable manner, for instance, by means of a spigot 14 passing through the hole 15. The other part 11 of the hinge member may also be suitably secured to a fixed part of the vehicle or it may be trapped between two parts of the vehicle which are brought together during assembly of the vehicle. For instance, if the hingeable member is a door, the part 11 is trapped between the body 16 of the vehicle and the seat unit 17, the seat unit usually being a separate moulding which is secured

to the chassis. The body is then secured to the chassis and seat unit. The dotted lines in Fig. 1 show the door in the closed position.

5 An alternative is shown in Fig. 2 where the hinge member consists of a part 20 similar to the part 10 shown in Fig. 1 whereas the other part, corresponding to the part 11 shown in Fig. 1, is formed by the dash-
10 board 21 and in fact the dashboard and the part 11 are formed as a single moulding of polypropylene with a portion 22 of reduced thickness between them to form the hinge line. The dashboard is recessed as shown
15 at 23 so that the limb 24 of the part 20 can nest therein when the door is closed.

A further embodiment of the invention is shown in Fig. 3. In this arrangement a boot lid 30 and a bonnet 31 are both openable and are formed in a single moulding of poly-
20 propylene with the seat unit 32. Portions of reduced thickness 33 and 34 form the hinge lines for the boot lid and bonnet respectively.

25 It will be understood that the invention is not limited to the embodiments shown and many modifications may be made without departing from the scope of the invention. For instance, the hingeable portion itself
30 may form one part of the two-part hinge member.

WHAT WE CLAIM IS:—

1. A model vehicle having at least one hingeable portion, wherein the hinging effect
35 is obtained by the use of a two-part hinge member formed of a moulding of polypropylene or other plastics materials having similar properties, the thickness of the material being reduced along the hinge line
40 between the two parts.

2. A model vehicle having at least one hingeable part, wherein the hinging effect is obtained by the use of a two-part hinge member formed of a moulding of polypropylene or other plastics material having
45 similar properties, and one part of the hinge member is a fixed portion of the vehicle, the thickness of the material being reduced along the hinge line between the two parts. 50

3. A model vehicle as claimed in claim 1, wherein the hingeable portion forms one part of the two-part hinge member.

4. A model vehicle as claimed in claim 1, wherein one part of the two-part hinge member is moulded in one piece with a fixed
55 portion of the vehicle.

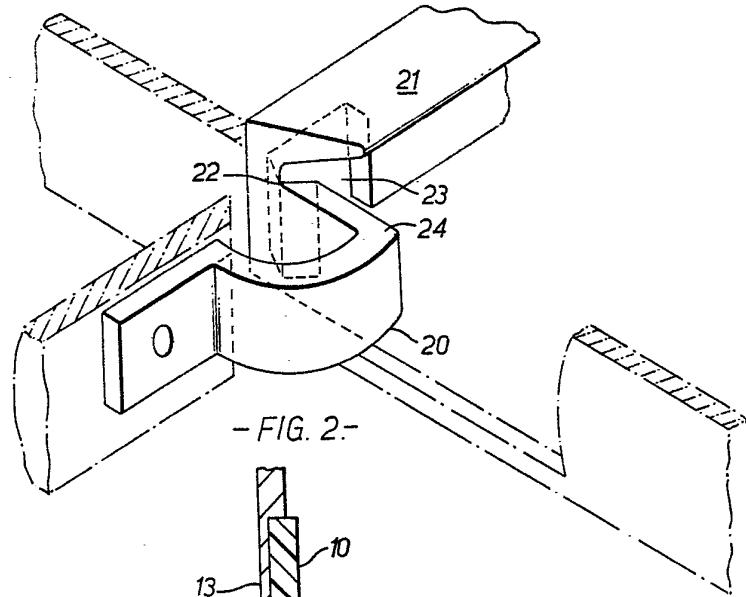
5. A model vehicle as claimed in claim 1, wherein one part of the two-part hinge member is trapped between two fixed portions
60 of the vehicle.

6. A model vehicle as claimed in claim 2, wherein the hingeable portion is a door suitably secured to one part of the two-part hinge, the other part of which is
65 integral with the dashboard.

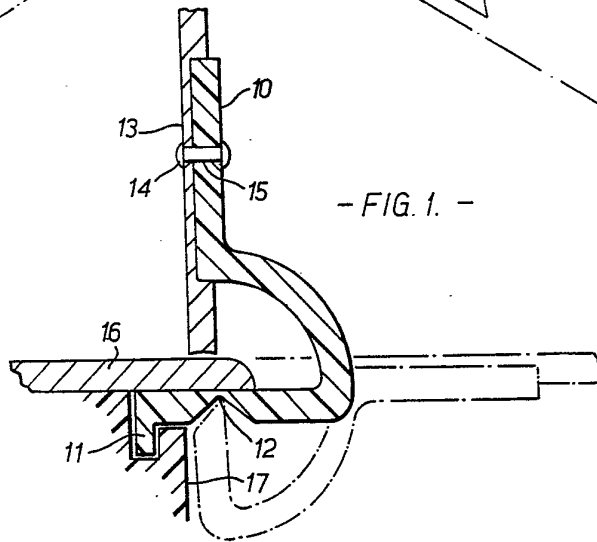
7. A model vehicle as claimed in claim 2, wherein the vehicle includes a hingeable boot lid and bonnet both of which are
70 formed integral with a seat unit.

8. A model vehicle having at least one hingeable portion substantially as described with reference to the accompanying drawings.

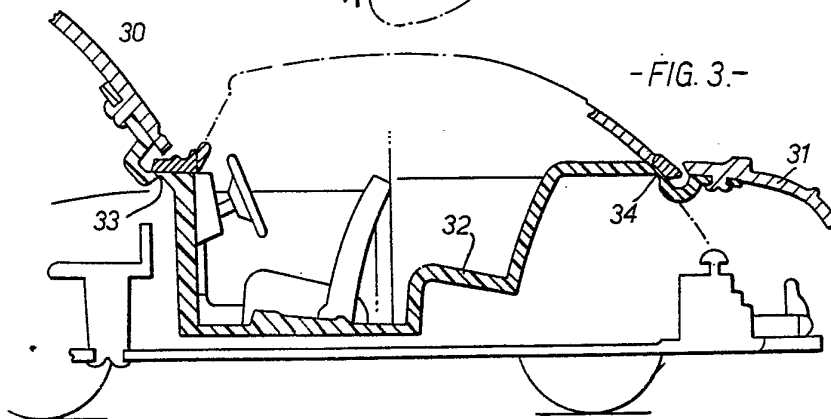
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- FIG. 2 -



- FIG. 1 -



- FIG. 3 -