



PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Improvements in or relating to Model Vehicles

We, MECCANO LIMITED, of 236 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 toy model vehicles and is more particularly concerned with lighting arrangements on such vehicles.

The trend at the present time in the manufacture of toy model vehicles is to increase the realism of the model, but it is at the same time essential to ensure that any increase in realism can be attained without unduly increasing the cost of manufacture.

A number of proposals have already been made for increasing the realism of toy model vehicles by incorporating some form of lighting arrangement and the object of the present invention is to provide a simple and economic form of lighting arrangements for a toy model vehicle.

According to the invention means are provided which are responsive to downward pressure being exerted on the vehicle to cause the illumination of stop lights.

The invention will be better understood from the following description of one embodiment taken in conjunction with the accompanying drawing comprising Figs. 1 and 2. In the drawing:

Fig. 1 shows a sectional view of the model vehicle and

Fig. 2 shows a plan view of the base portion.

Generally a model vehicle consists basically of three parts and, referring to Fig. 1, these consist of a body portion 10 of die cast metal, a seat unit 12 of a plastics material and a base portion 13 also of die cast metal. The wheels 14 of the vehicle are spring-mounted by springs 15 on the base portion 13. In assembly the seat unit is positioned within the body portion and the base portion is suitably secured to the body portion, the shape of the

parts being such that the seat unit is retained in its correct position when the base portion and the body portion are secured together.

In order to adapt the model vehicle for the provision of stop lights, the seat unit 12 is provided with a central longitudinal tunnel 16 simulating the usual transmission shaft tunnel and this forms a housing for a 1.5 volt long life battery 17. One pole of the battery engages with an electrically conducting contact spring 18 riveted to the base portion 13 and the other pole of the battery engages with the end contact 19 on the light bulb 20. The bulb itself seats within an aperture in a light guide 21 which is vacuum plated to provide maximum light transmission and which is formed of a transparent plastics material. The light guide is forked, the two prongs 22 and 23 extending to the stop-light positions at the rear of the body portion. In the embodiment shown the prongs 22 and 23 extend into slots 24 in the body portion, the ends of the prongs being flush with the outer surface of the body portion. The ends of the prongs are provided with facets as shown in the drawing and are sprayed with thin red lacquer. A second electrically conducting contact spring 25 is secured to and electrically insulated from the body portion and the free end of this spring engages with the body portion of the bulb 20.

The spindle 26 carrying the rear wheels is mounted in known manner in vertically extending slots in bearing members 27 forming part of the base portion 13, the spindle 26 being normally maintained in the lower end of the slots by the spring or springs 15 secured to the base portion, and being electrically conducting. When downward pressure is exerted on the vehicle, however, the spindle 26 will rise in the slots and will eventually make contact with spring 25. This completes an electrical circuit from the left-hand pole of battery 17, contact spring 18, base portion 13, spring 15, electrically conducting spindle 26, contact spring 25, body of the bulb, filament, end con-

[Price 4s. 6d.]

5 tact 19 of the bulb to the right-hand pole of the battery formed by the surface engaged by the bulb contact. The bulb is lighted and the light transmitted to the stop light positions by the light guide.

10 It will be understood that the invention is not limited to the specific embodiment described but that various modifications may be made without departing from the scope of the invention. For instance the second contact spring 25 need not be in permanent contact with the body of the bulb but could be moved into contact therewith by the upward movement of the spindle 26 in response to downward pressure of the vehicle. Alternatively the second contact spring 25 may in some models be eliminated and the lighting circuit completed by the engagement of spring 15 with the body of the bulb on upward movement of the spindle 26. Further although the light guide 21 has been shown as a single forked member, it is also possible to form the light guide in two parts which extend to the two stop light positions, the two parts when mounted having substantially the shape shown for the single guide.

WHAT WE CLAIM IS:—

30 1. A toy model vehicle wherein means are provided which are responsive to downward pressure being exerted on the vehicle to cause the illumination of stop lights.

2. A toy model vehicle as claimed in claim

1, wherein at least one pair of vehicle wheels are spring mounted and the upward movement of the axle of said pair of wheels on downward pressure on the vehicle completes an electrical circuit including a battery for illuminating the stop lights. 35

3. A toy model vehicle as claimed in claim 2, wherein the completion of said electrical circuit causes the illumination of a single bulb and light guiding means are provided to transmit light from the bulb to the two stop light positions on the vehicle. 40

4. A toy model vehicle as claimed in claim 3, wherein the light guiding means comprise a single forked light guide. 45

5. A toy model vehicle as claimed in claim 3, wherein the light guiding means comprises two light guides extending to the two stop light positions. 50

6. A toy model vehicle as claimed in claim 4 or 5, wherein the light guide or guides is or are formed of a transparent plastics material and is or are vacuum plated to ensure maximum light transmission. 55

7. A toy model vehicle substantially as described with reference to the accompanying drawing.

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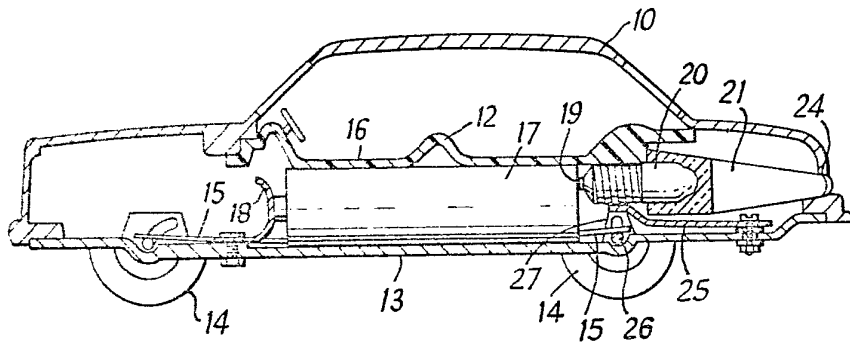


FIG. 1.

Fig. 2.

