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J. T. McLANE

2,133,771

COMPOSITE ARTICLE

Filed Nov. 6, 1937

Fig. 1

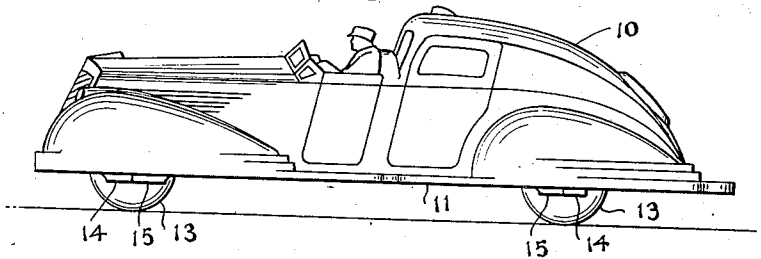


Fig. 2

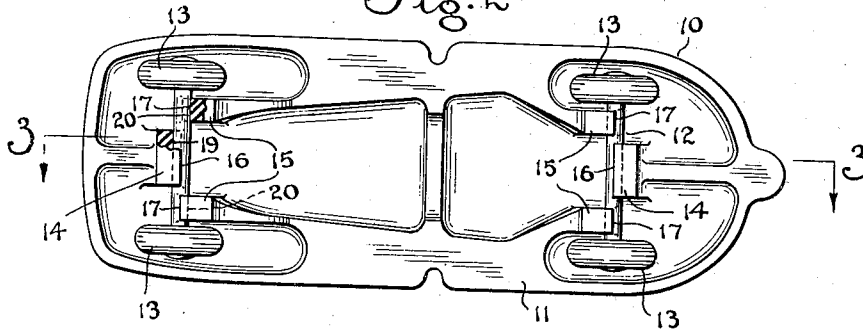


Fig. 3

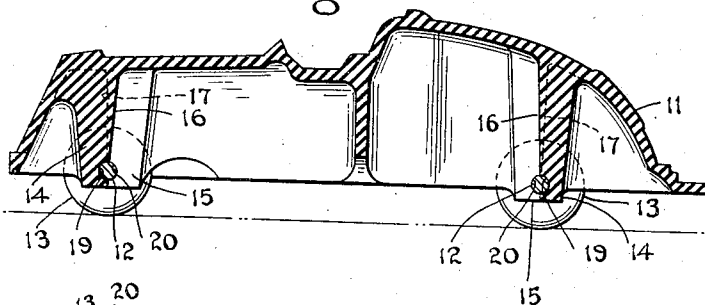
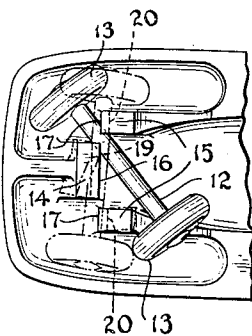


Fig. 4



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COMPOSITE ARTICLE

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4 Claims. (Cl. 46—221)

This invention relates to composite articles and particularly to toy vehicles formed by molding elastic or resilient material, such as rubber, to simulate the designs of various full-sized vehicles, and including parts such as wheel and axle assemblies of different material.

The general object of the invention is to provide articles of the character described upon which the parts of different materials, such as wheel assemblies, may be quickly, inexpensively, but firmly mounted, thereby greatly reducing the production cost of such articles.

Other objects will be manifest from the following brief description and the accompanying drawing.

Of the accompanying drawing:

Figure 1 is a side elevation of a toy vehicle embodying the invention.

Figure 2 is a bottom plan view of Figure 1.

Figure 3 is a cross-section taken on the line 3—3 of Figure 2, and

Figure 4 is a fragmentary bottom view illustrating the method of attaching a wheel assembly.

Referring to the drawing, 10 is a toy automobile, preferably of plastic material, such as rubber, molded or vulcanized in simulation of a full sized automobile. The body portion 11 of the toy may be of substantially hollow construction to conserve material and minimize the weight thereof.

Depending from the underside of the body 11 there may be provided, for each wheel assembly comprising the usual axle 12 and a pair of wheels 13, 13, a series of blocks or projections including a central block 14 on one side of the axle center line and a pair of blocks 15, 15, in staggered relation thereto, on the other side of the axle center line. The vertical faces 16 and 17, 17 of the blocks 14 and 15, 15 respectively, may have transversely extending grooves 19 and 20, 20 thereon adapted to receive an axle 12, and the blocks preferably are arranged so that the axle 12 may only be inserted in these grooves against strong tension in the blocks caused by the inherent tendency of vulcanized material, such as rubber, to resume its vulcanized shape.

The wheel assemblies, assembled on any suitable production basis, may quickly be secured on

the toy vehicle 10 by first forcing the axle 12 between block 16 and one of the blocks 15 until the axle slips into the ends of the grooves thereof, as illustrated in full lines in Figure 4, and then swinging the axle around against the resilient pressure of the block 16, as shown in chain-dotted lines in Figure 4, until the axle can be slipped into groove 20 in the other block 15. Thus it may readily be seen that one of the principal production operations in the manufacture of an article of this kind, namely securing of the wheel assembly on the toy vehicle, is greatly simplified and the cost of producing such toys thereby greatly reduced.

Modifications of the invention may be resorted to without departing from the spirit of the invention or the scope of the appended claims.

What is claimed is:

1. A toy vehicle comprising a body, wheel and axle supporting-blocks in staggered relation on said body, said supporting-blocks being adapted to be flexed to permit ready insertion of said axle therebetween, and a wheel and axle assembly received between said blocks.

2. A toy vehicle comprising a body, wheel and axle supporting-blocks in staggered relation on said body, said supporting blocks having transverse grooves therein for receiving said axle, said supporting-blocks being adapted to be flexed to permit ready insertion of said axle therebetween, and into said grooves, and a wheel and axle assembly received between said blocks.

3. A toy vehicle comprising a body, wheel and axle supporting-blocks on said body including a central block and at least two adjacent blocks in opposed staggered relation thereto, said blocks being adapted to be flexed to permit ready insertion of said axle therebetween, and a wheel and axle assembly received between said blocks.

4. A composite article of the character described, comprising one part including a series of opposed staggered blocks of flexible, elastic material, and another part adapted to be received between and supported by said blocks, said blocks being adapted to be flexed by said other part to insert said other part in place.

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