Dec. 29, 1925. 1,567,228

H. S. BECKER

TOY CAR CONSTRUCTION

Filed March 2, 1925 3 Sheets-Sheet 1

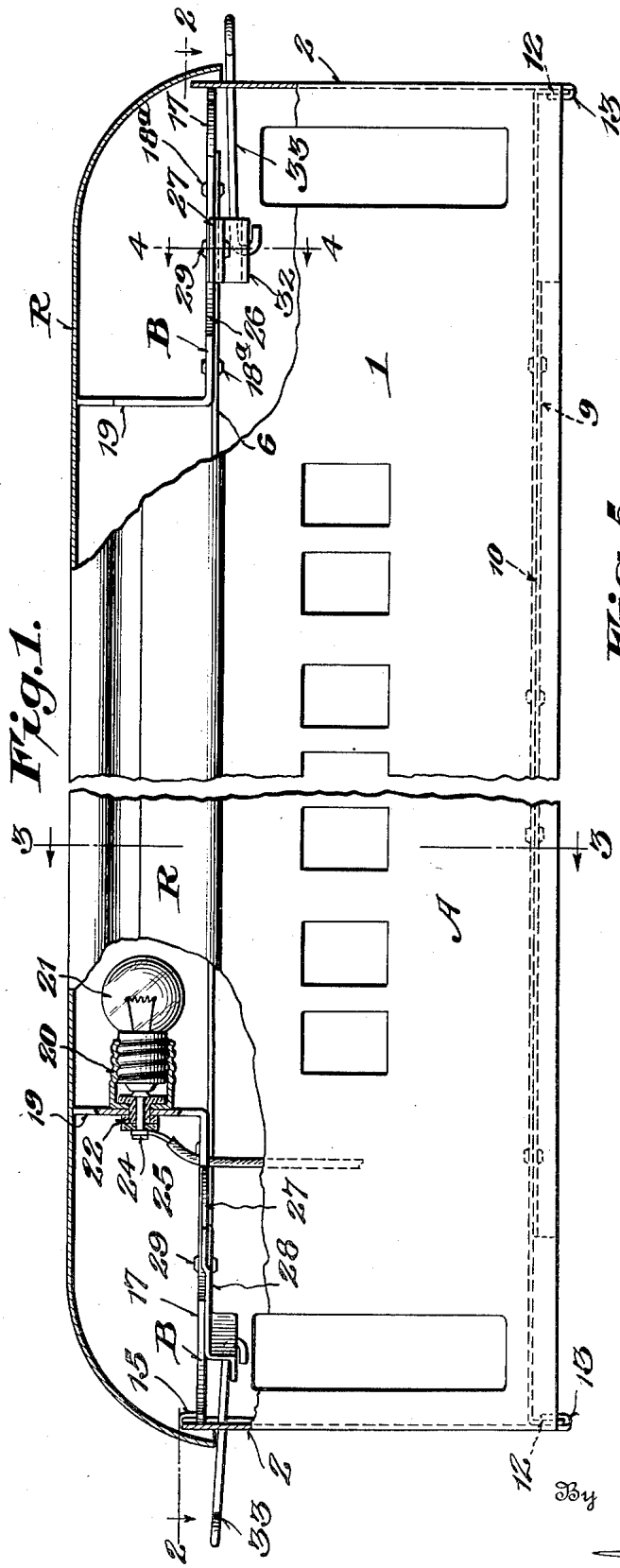

Fig. 1.

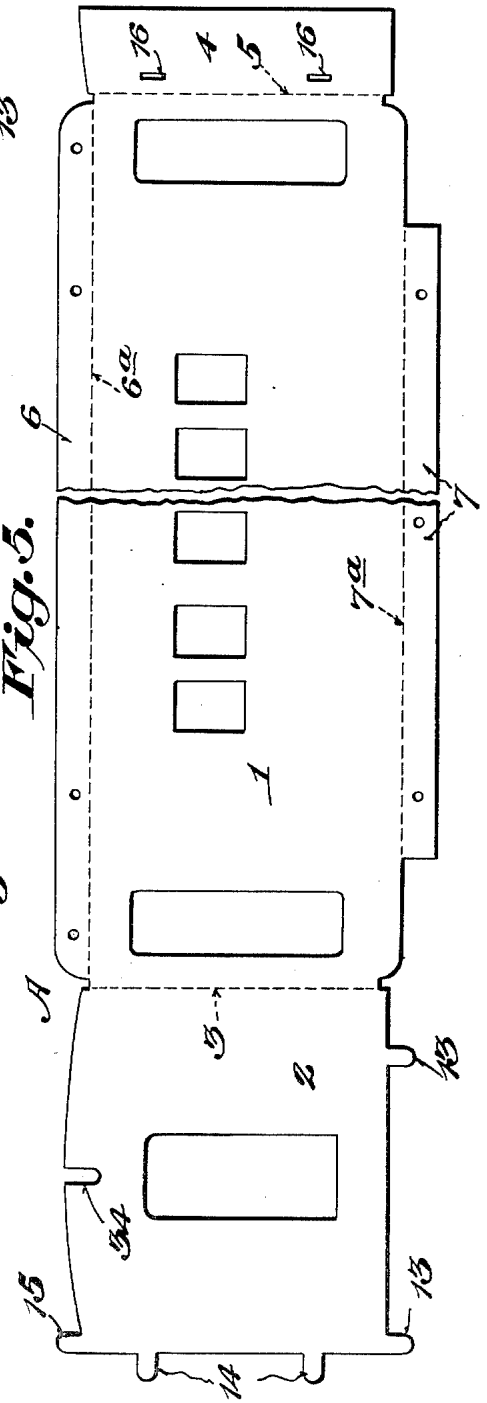

Fig. 5.

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Fig. 2.

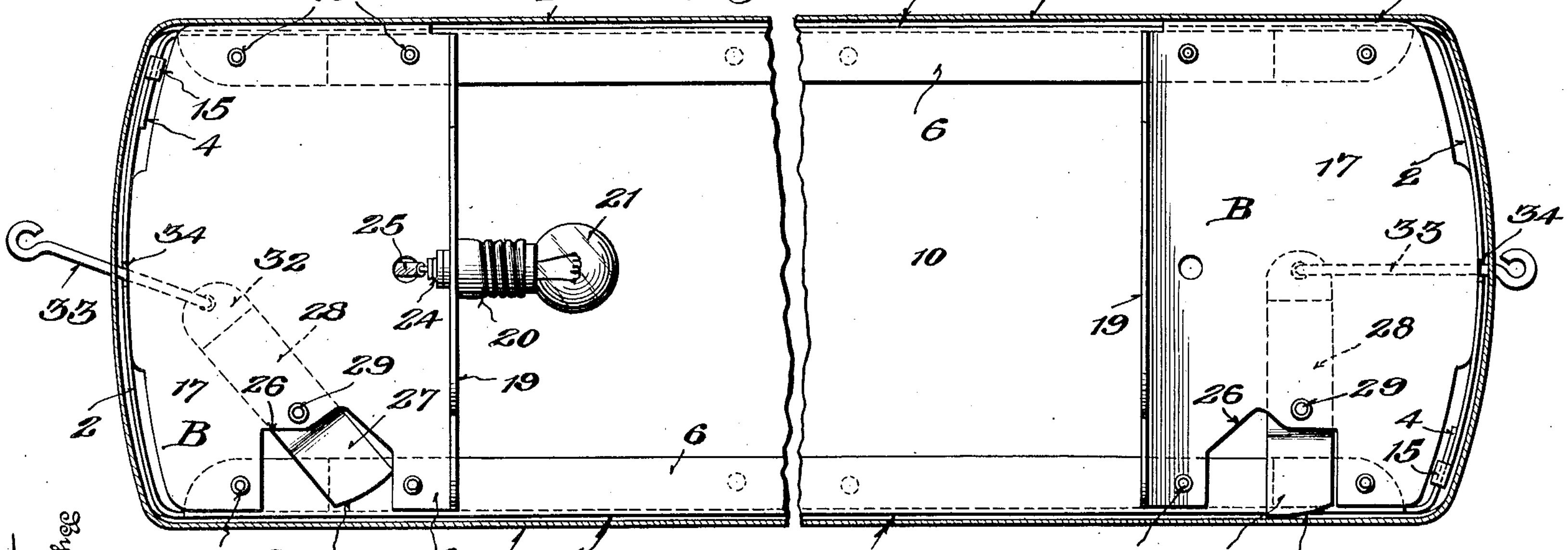


Fig. 6.

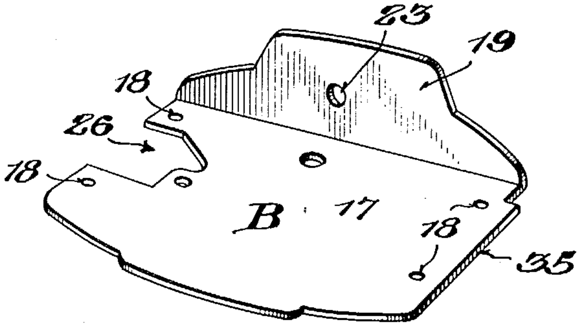
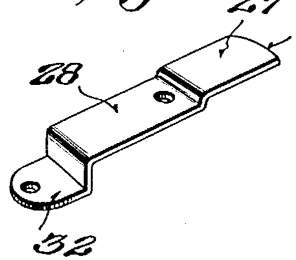


Fig. 7.



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TOY CAR CONSTRUCTION

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Fig. 3.

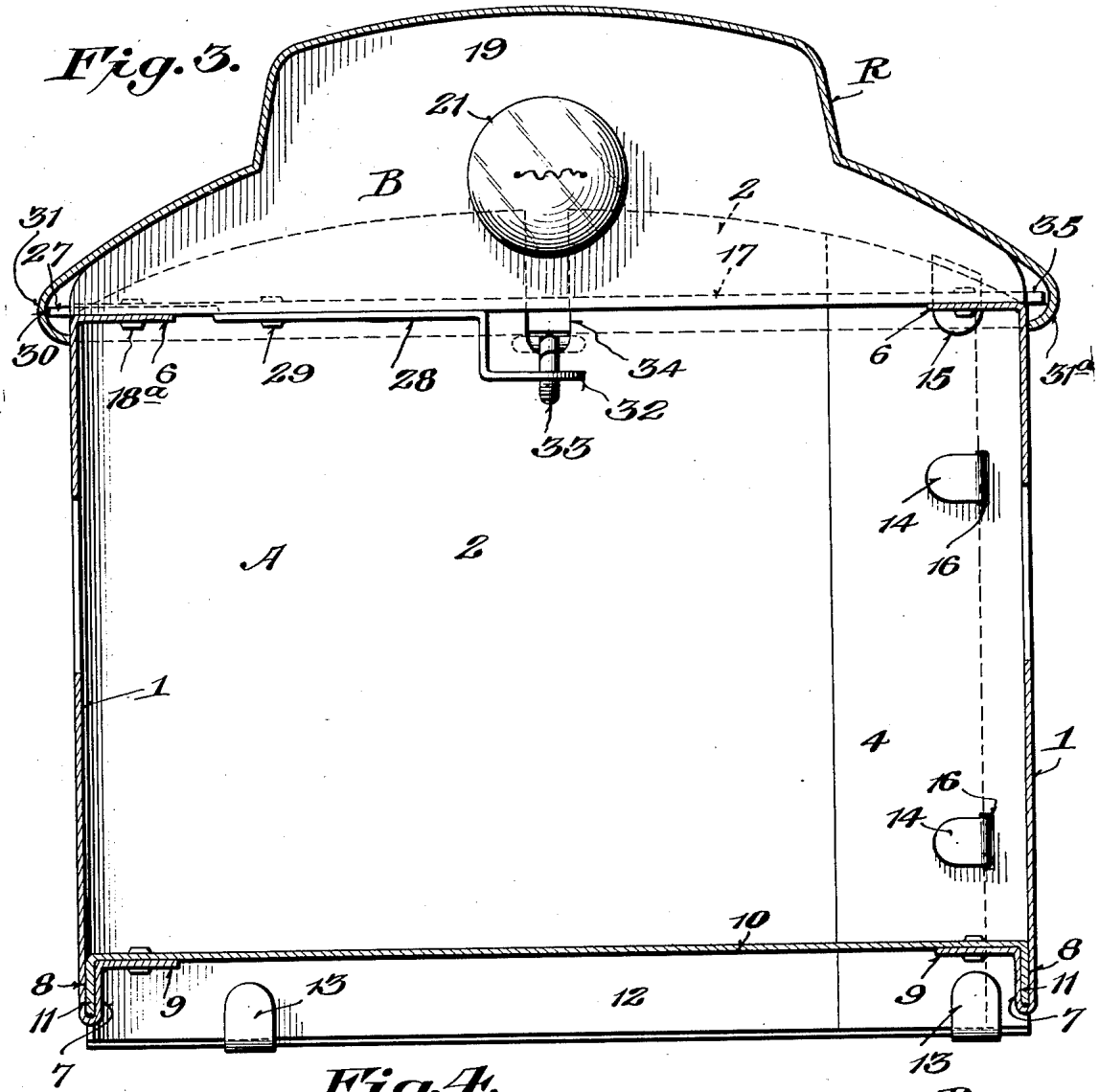
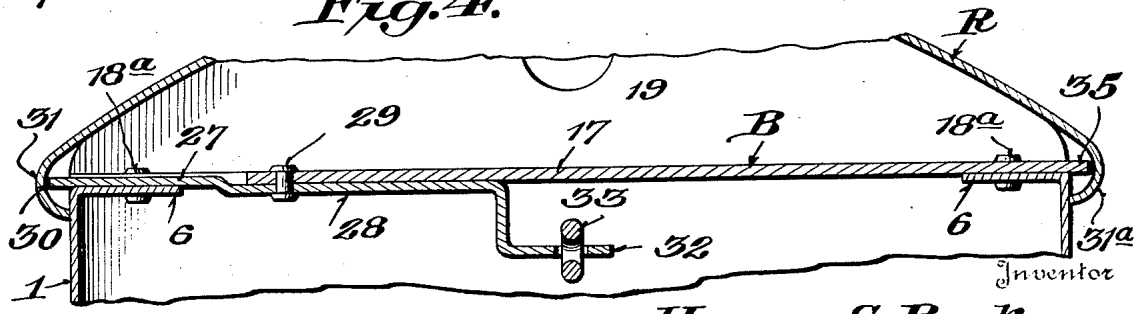


Fig. 4.



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Patented Dec. 29, 1925. 1,567,228

UNITED STATES PATENT OFFICE.

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TOY-CAR CONSTRUCTION.

Application filed March 2, 1925. Serial No. 12,724.

To all whom it may concern:

Be it known that I, HARRY S. BECKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toy-Car Construction, of which the following is a specification.

This invention relates to toy electric railways and more particularly to an improved toy car construction, preferably of the passenger coach or Pullman type.

Cars of the character referred to in the better grades of trains are electrically lighted inside, and may also be provided with seats, thereby making it desirable to have ready access to the interior of the car not only for the purpose of replacing or adjusting the electric lamps, but also to permit access to the interior of the car for the purpose of adjusting or rearranging the interior thereof as desired. Accordingly, the present invention has in view the provision of a toy car having a removable roof and novel means for securing the roof to the car so that it may be readily removed and yet securely held in position when in place, thereby avoiding accidental displacement and also preventing rattling by avoiding looseness of fit.

Another object of the invention is to provide novel means for supporting the incandescent lamp independently of the roof, thereby making it possible to manipulate the roof after it is removed without fear of breaking or rupturing the feed wires to the lamp or affording other inconvenience.

A further object of the invention is to provide a car body-construction which permits of making the car sides and ends from duplicate punchings which may be assembled to form the sides and ends of the car, and may be securely interlocked with and riveted to the body of the car thereby insuring that the sides and ends are held in proper shape, and providing in effect a strong and practical bed-frame construction which contributes materially to the stability and life of the car.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings in which—

Figure 1 is a side elevation of a car constructed in accordance with the present invention and having parts thereon broken away to illustrate the improved locking means and the lamp supporting means.

Figure 2 is a horizontal sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 1.

Figure 4 is an enlarged detail sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a plan view of the present form at the sides and ends of the car there formed.

Figure 6 is a detail perspective view of the lock and lamp of the roof locking and lamp supporting bracket.

Figure 7 is a detail perspective view of the locking lever used for locking the roof to the car body.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

In the manufacture of toy cars for toy railways it is necessary that the construction not only possess beauty of design, but mechanical simplicity, durability and low manufacturing cost, while also as previously indicated, it is desirable to construct the car in such a way that convenient access may be had to the interior.

The present invention, seeking to embody features above pointed out, provides a novel car body construction including in its organization a combined car-side and car-end forming unit designated generally as A, and shown in Figure 5. This unit may be readily stamped from sheet metal and may be used to form both sides of the car, thereby making duplicate stampings serve the

purpose of forming the right and left hand side and end walls of the car body.

Referring to Figure 5 it will be observed that the unit A comprises the side wall 1 and the end wall 2, the same adapted to be bent at an angle on the line 3. Also, the side wall 1 has at the end opposite the wall 2 an attaching flange 4 adapted to be bent on the line 5 to assist in connecting the end wall of the opposite unit when the same are assembled to form the car.

The side wall 1 may be provided with the usual windows and doors, and the upper edge thereof is formed with top flange 6 which is to be bent laterally in a horizontal plane along the dotted line 6a. Similarly, the lower edge of the side wall 1 is formed with a bottom flange 7 which is also adapted to be bent inwardly on the line 7a but is then bent upwardly to provide a longitudinal socket 8 along the inside face of the wall 1 as shown in Figure 3, after which the flange may be bent into a horizontal plane as indicated at 9 to support and facilitate the attachment of the bottom 10 to the car side by rivets or like fastenings. In connection with the bottom 10 it will be observed that the same is preferably of oblong formation and has the downturned side flanges 11 adapted to fit in the longitudinal sockets 8 formed at the bottoms of the side walls 1, and likewise having the downturned end flanges 12 (see Figure 3) adapted to bear against the end wall 2 and clamped or held by the tongues 13 at the bottom of the end wall, when said tongues are bent upwardly as shown in Figure 3.

Referring further to the end wall 2 it will be observed from Figure 5 that the same is provided with the laterally projecting bendable tongues 14 and the upwardly projecting corner tongue 15, the former being adapted to enter the slots 16 in the flange 4 of the opposite side-and-end-wall forming unit while the corner tongue 15 may be bent downwardly over the upper edge of the flange 4 as clearly shown in Figure 3.

When the combined car-side and end-forming units A are assembled, and the floor or bottom 10 is also secured in position, the bed portion of the car body is completed in a stable manner, but to further assist in bracing the car and to also provide convenient means for supporting the roof locking devices and the lamps, suitable brackets B shown in Figure 6, are employed. These brackets are of duplicate formation and can be used at both ends of the car, and preferably consist of a body portion 17 having the fastening receiving openings 18 for permitting the brackets to receive the fastenings 18a to connect the brackets to the flanges 6, and also having the vertical or upstanding end wall 19 for supporting and carrying the lamp socket 20. As will be observed from Figure 1 the said lamp socket 20 preferably consists of the socket shell for receiving the screw plug of the lamp 21, while suitable insulation 22 passing through the opening 23 in the wall 19 insulates the center plug contact 24 from the car body which forms the ground of the circuit. The center plug contact 24 provides the terminal for the wire 25 of the electric lighting system for supplying the lamp 21 with current.

The bracket B is also preferably cut away as indicated at 26 thereby to receive the upwardly offset keeper end 27 of a locking lever 28 which is pivoted as at 29 to the underside of the bracket so that the body of the lever lies substantially in the plane of the top flange 6 of the car side while the upwardly offset keeper portion 27 projects through the opening 26 thereby to engage with the upper surface of the top flange 6 whereby the cam-like terminal 30 of the keeper member 27 may be forced into engagement with the downwardly and inwardly turned side flange portion 31 of the removable car roof R.

For the purpose of manipulating the lever 28 the same is preferably offset as indicated at 32 thereby to receive a manipulating link 33 which extends exteriorly of the car through a notch or opening 34 in the top of the end wall 2. As will be observed from Figure 2, the link or handle 33 may be manipulated to cause the cam portion 30 of the lever 28 to impinge on the side face of the inturned flange portion 31 of the car roof thereby to pull the opposite flange 31a of the car roof into binding engagement with the side of the car and also against the extending or projecting roof holding flange or abutment 35 of the bracket B.

With the construction described it will be apparent that a rigid practical and stable car body is provided, the sides and bottom interlocking and fastening together while at the same time the upper ends of the car sides are tied together by the brackets B. The brackets B also afford interlocking means for one of the under-curled sides of the removable roof R while the locking means at the opposite side of the bracket provides for conveniently camming the car roof in locked relation to the sides. By manipulating the handles or links 33 the levers 28 may be readily removed to release the top to permit access to the interior of the car.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. A toy car construction comprising a body consisting of a bottom provided with downturned edge flanges, a pair of side and end wall forming sections each including a side and end bent at right angles and an attaching flange at the end of the side wall opposite the end wall and adapted to connect with the end wall of the other section, upturned members at the bottom of the side and end walls of the said sections and adapted to receive the downturned flange of the bottom section, a roof positioned at the upper edge of said sections and means for locking said roof to said sections.

2. A toy car construction including a body consisting of side and end wall forming members, the latter having means for fastening together, a bottom secured to the lower edges of the side walls, and the end walls, a roof, brackets for connecting the upper portions of the side walls and having roof engaging and locking means associated therewith.

3. A toy car construction including a body consisting of a pair of side and end wall forming members connected at the ends, a bottom for connecting the side and end walls, a roof, brackets for connecting the upper portions of the side walls, and means carried by said brackets for engaging and holding the roof in position, said means comprising a lateral extension on the bracket for engaging with a portion of the roof, and a manually manipulated locking member for also engaging with the roof.

4. A toy car construction including a body consisting of a pair of side and end wall forming members connected at the ends, a bottom for connecting the side and end walls, a roof, brackets for connecting the upper ends of the side walls, and means carried by said brackets for engaging and holding the roof in position, said means comprising an extension on the bracket for engaging with one side of the roof and a pivoted lever carried by the bracket and having a camming end portion adapted to engage with the opposite edge of the roof, and a manipulating link connected with the locking lever and extending exteriorly of the car.

5. A toy car construction including a body consisting of a pair of side and end wall forming members connected at the ends, a bottom for connecting the side and end walls, a roof, brackets for connecting the upper edges of the car sides, each of said brackets comprising a body having a lateral extension projecting beyond the car side to form a roof engaging abutment and also being cut away at the side opposite the extension, a roof locking lever pivoted to the bracket and having a keeper portion operating in the cut away part of the bracket and the end of said keeper portion adapted to be swung into and out of position to project beyond the car side with a portion of the roof, and means for manipulating said lever projecting exteriorly of the car body.

6. A toy car construction comprising a body formed of side and end wall members connected at the ends, a bottom, brackets for connecting the upper edges of the side walls, a lamp socket carried by said brackets, a roof member adapted to fit over and house the body, and means carried by said brackets for detachably locking the roof to the body.

7. A toy car construction comprising a car body, a roof removably fitted to the body, brackets arranged within the body and formed to provide a lamp socket supporting and carrying member and also having means for engaging with the roof, and a manually manipulated locking member carried by the bracket for releasably engaging and holding the roof in position.

8. A toy car construction comprising a car body, a roof detachably fitted to said body, brackets carried by the body and each comprising a body portion having fixed roof engaging means and also carrying therewith movable roof engaging means, and an exterior operating connection for the latter.

9. A toy car construction comprising a car body, a detachable roof having inturned flanges at the sides thereof, brackets carried by the upper edges of the car body and having a lateral extension adapted to fit in the inturned flange portion of the roof and manually shiftable cam means also carried by the bracket and adapted to engage an opposite inturned flange portion of the roof.

10. A toy car construction comprising a car body made of sheet material, means for connecting and bracing the upper edges of the car body, a lamp carried by said means, and a roof fitted to the body and covering said lamp.

11. A toy car construction comprising a car body made of sheet material, and simulating a railway car, means at the ends of the car for connecting the upper edges thereof and leaving the space between the ends open to permit access to the body, an electric lamp carried by said means, and a roof fitted to the body and covering said means and lamp.

12. A toy car construction comprising a car body made of sheet material and simulating a railway car, means for connecting and bracing the upper edges of the car body at the ends of said body, abutment means projecting from one edge of said first named means beyond the outer face of one side of the car body, movable locking means carried by the other side of said first named means, and a car roof detachably connected to the body and adapted to engage said abutment means and to be also engaged by said movable locking means.

13. A toy car construction comprising a car body made of sheet material and simulating a railway car having window and door openings, brackets at the ends of the car body for connecting the upper edges thereof and also having a portion forming a support for an electric lamp socket, said brackets being spaced to permit access to the car body there-between, a cover simulating a car roof adapted to be fitted to said car body, and means for locking said cover to the body.

In testimony whereof I hereunto affix my signature.

HARRY S. BECKER.