Sept. 25, 1928. 1,685,691

H. S. BECKER

HEADLIGHT AND MOUNTING FOR TOY RAILWAY CARS

Filed Sept. 14, 1927 2 Sheets-Sheet 1

Fig. 1.

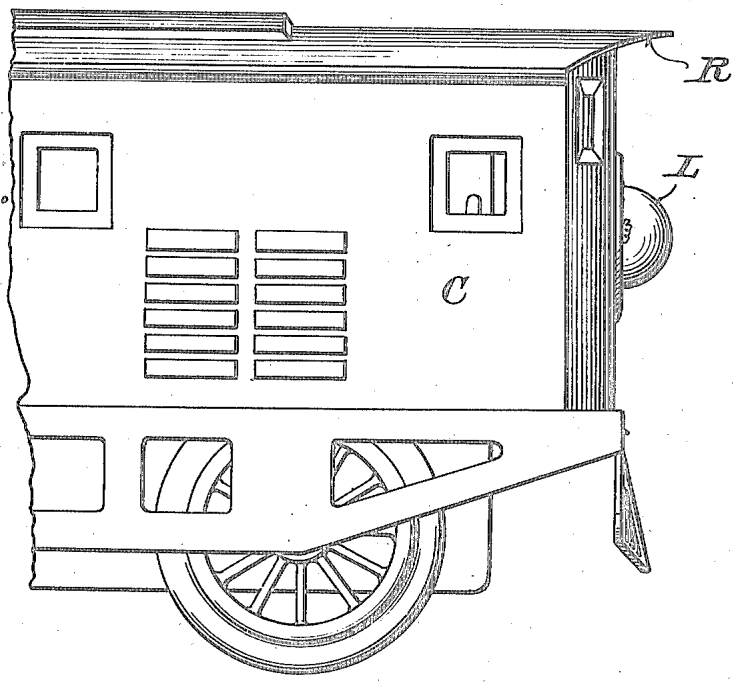
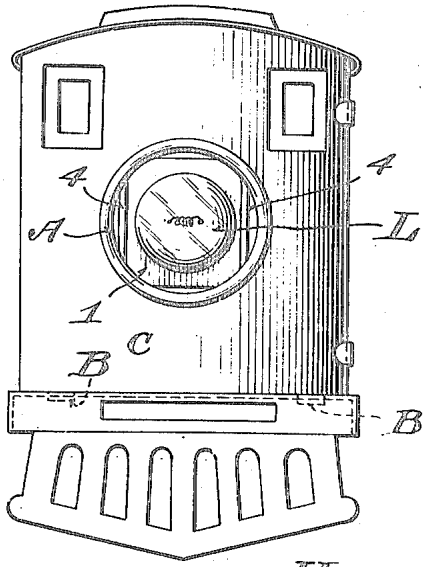


Fig. 2.



Inventor
Harry S. Becker,

WITNESSES:-
Chas. L. Grisbauer
Emory L. Groff

By D. F. Williamson

Attorney

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Fig. 3.

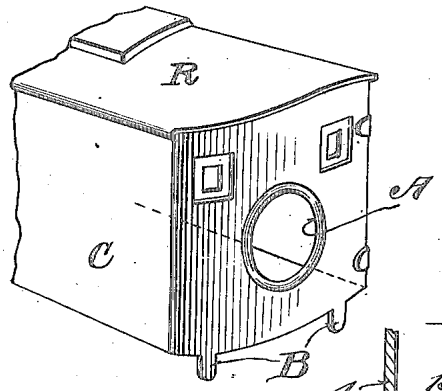


Fig. 5.

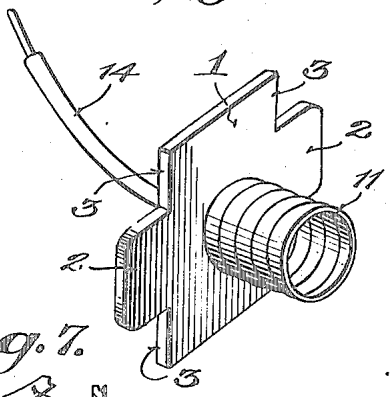


Fig. 7.

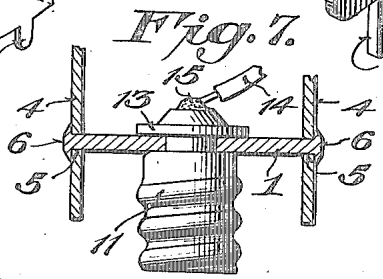


Fig. 4.

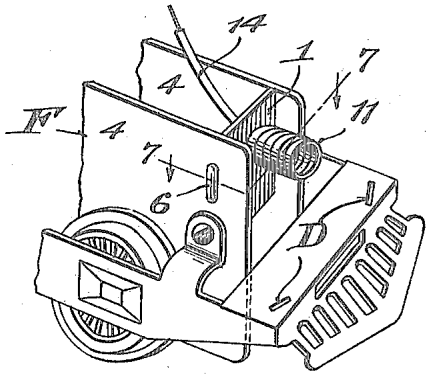
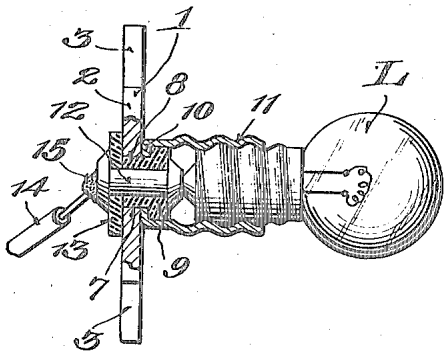


Fig. 6.



Inventor

Harry S. Becker,

By A. P. Wolcott

Attorney

WITNESSES:-

Chas. L. Greisbauer

Emory R. Groff

Patented Sept. 25, 1928. 1,685,691

UNITED STATES PATENT OFFICE.

HARRY S. BECKER, OF RIVER FOREST, ILLINOIS, ASSIGNOR TO AMERICAN FLYER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

HEADLIGHT AND MOUNTING FOR TOY RAILWAY CARS.

Application filed September 14, 1927. Serial No. 219,537.

This invention relates to toy electric railways, and more particularly to a novel headlight construction for toy locomotives.

A primary object of the invention is to provide a construction which will permit of providing a mounting for the light which is easy and economical to make and safe for the lamp when installed, thereby not only reducing the cost of manufacturing the locomotive but also affording means for protecting the lamp from accidental injury. In toy train design it is desirable to follow and conform with the general appearance and general arrangement of modern electric locomotives of the type used on traction lines and railways, and with that end in view it is proposed to provide a headlight construction possessing novel structural features peculiar to conditions and problems involved in the construction of toy locomotives.

In the usual or ordinary construction of toy electric locomotives it has been the custom to attach the entire headlight unit, consisting of a lamp housing, a socket and a lamp or bulb, to the cab or housing of the locomotive, and afterward to connect by wire or other means the lamp socket to the electrical supply gathered from the third rail or other similar means of electrical supply. This method, while in some cases is satisfactory, has proven to be a costly and somewhat impractical construction.

Accordingly, the present invention has in view the provision of a headlight construction, wherein the usual housing or lamp box is entirely eliminated, yet wherein the bulb or lamp is protected from accidental injury, such as the locomotive falling from the track, etc.

Another object of this invention is to provide a cheap and simple headlight construction, whereby the entire headlight unit does not touch, nor is in anyway associated with or connected to the locomotive housing or cab, thus allowing the locomotive housing or cab to be readily removed for inspection of motor or for other reasons.

A further object of this invention is a simple, cheap construction whereby the headlight unit is located entirely within and attached to the body or frame of the motor used for propelling toy electric locomotives, thus eliminating poor electrical contacts, which cause uneven or "flickering" headlights.

A still further object of the invention is to readily allow removal of a burned out bulb or lamp, and the insertion of a new bulb or lamp without the use of special tools.

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 construction, 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

Fig. 1 is a partial side elevation of a toy electric locomotive equipped with the present improvements.

Fig. 2 is a front elevation of the locomotive shown in Fig. 1.

Fig. 3 is a detail perspective view of the front of the car body.

Fig. 4 is a detail perspective view of the lamp mounting on the motor frame.

Fig. 5 is a detail perspective view of the lamp carrier.

Fig. 6 is a detail side elevation, partly in section, illustrating the manner of attaching the lamp socket to the carrier.

Fig. 7 is a detail sectional view taken on the line 7—7 of Fig. 4.

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

One of the distinctive features of the invention resides in providing a lamp mounting directly on the motor frame F which is enclosed and concealed by the car or cab body C, thereby enabling the entire electrical part of the locomotive to be assembled and the cab or body fitted in position afterwards to complete the final assembly of the locomotive or later removed to have access to the motor. To that end the car or cab body C is provided with an opening A which is large enough to permit the bulb of a lamp to be placed therethrough when the body is fitted to the motor frame, and also the bottom of the body is provided with the tongues B adapted to fit into the openings or slots D in the car chassis carried by the motor frame thereby to permit of securing the body in place after the lamp holder and its connections have been completely assembled.

A further distinctive feature of the invention resides in providing a combined lamp

support or carrier and motor frame brace designated generally as 1 and including a body portion having the laterally offset attaching wings 2 which provide shoulders 3 for engaging against the inside of the side plates 4 of the motor frame. The purpose of providing the wings or lugs 2 at the sides of the carrier body 1 is to permit the same to pass through openings or slots 5 provided in the sides 4 of the motor frame so that the lugs may be riveted as indicated at 6 thereby to securely lock the plate 1 to the side walls 4 of the motor frame and hold the same in rigidly spaced apart relation.

The body of the carrier plate 1 is provided with a central opening 7 which is adapted to receive an insulating ferrule 8 provided with a collar or flange 9 for engaging the flange 10 on the bottom of the screw shell socket member 11 so that when the eyelet or equivalent fastening 12 is placed through the ferrule, the screw shell contact 11 will be firmly held against the carrier plate 1. The said carrier plate is a metallic plate and thereby provides the ground part of the circuit for the lamp L which is fitted in the socket 11. The fastening 12 is insulated from the plate 1 by means of the insulating washer 13 or its equivalent so that the said fastening 12 will constitute a center plug contact for the lamp. The end of the fastening opposite that constituting a contact for the lamp is adapted to have a wire 14 soldered thereto as indicated at 15, and the said wire 14 is electrically connected with the trolley or other contact which engages the third rail of the toy railway system thereby to form a complete circuit for the lamp L when the plug thereof is screwed in the socket 11.

From the foregoing it will be apparent that the present construction aims to provide a combined lamp support or carrier and motor frame brace which not only has the advantage of permitting the lamp socket to be rigidly and firmly connected to the motor frame but also enables the cab or car body to be assembled with reference to the chassis or truck in a simple and expeditious manner but without the necessity of requiring any wires to be attached to the body. The opening A affords ready access to the lamp socket 11 so that after the body has been placed on the truck or chassis the lamp L may be readily inserted or removed through the opening. Furthermore, the lamp L with this construction not only serves as a headlight but also provides interior illumination for the cab, thereby using a single source of light to the greatest advantage.

Also, by reason of the fact that the bulb of the lamp L is partly housed in the car body and is also protected by the overhanging roof R of the body the same is guarded or protected against accidental injury. The lamp carrier 1 not only serves as a support for the lamp L but also acts as a reflector, thereby projecting the rays of the lamp forwardly while permitting sufficient light to pass upwardly between the sides 4 of the motor frame to produce the interior lighting effect previously referred to.

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 headlight construction for toy locomotives comprising in combination a car body having a roof portion projecting beyond one end thereof and also provided with an opening, a car chassis having a front pilot portion adapted to project beyond the end of the car body when the latter is affixed to the chassis, an interior wheeled frame carrying the chassis, a lamp support mounted on the interior frame behind said opening in the car body thereby to receive a lamp whose bulb will be positioned partly within the opening and having a minimum projection beyond the car body.

2. A headlight construction for toy locomotives including in combination a motor frame having an end wall and side walls projecting beyond the same and constituting a light reflecting surface, a lamp socket carried by said end wall, and a housing simulating a locomotive cab body adapted to fit over said motor frame and having an opening registering with the socket, and a lamp fitted in said socket through said opening and being partly exposed through the latter.

3. A toy locomotive including, in combination, a wheeled motor unit including a frame and a car chassis carried thereby, said motor frame including an end wall and side walls providing light reflecting surfaces, and a lamp socket carried by said end wall, and a cover for said motor frame simulating a cab of a locomotive and means for attaching the same to the car chassis, and said body having an opening in one end thereof registering with said lamp socket.

In testimony whereof I hereunto affix my signature.

HARRY S. BECKER.