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H. S. BECKER

LIGHTING SYSTEM FOR TOY OBSERVATION CARS

Filed March 18, 1926

2 Sheets-Sheet 1

Fig. 1.

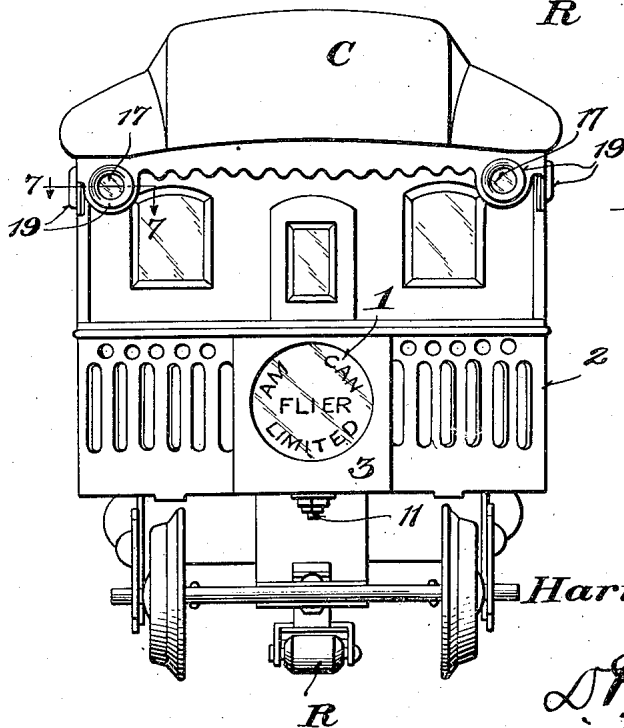
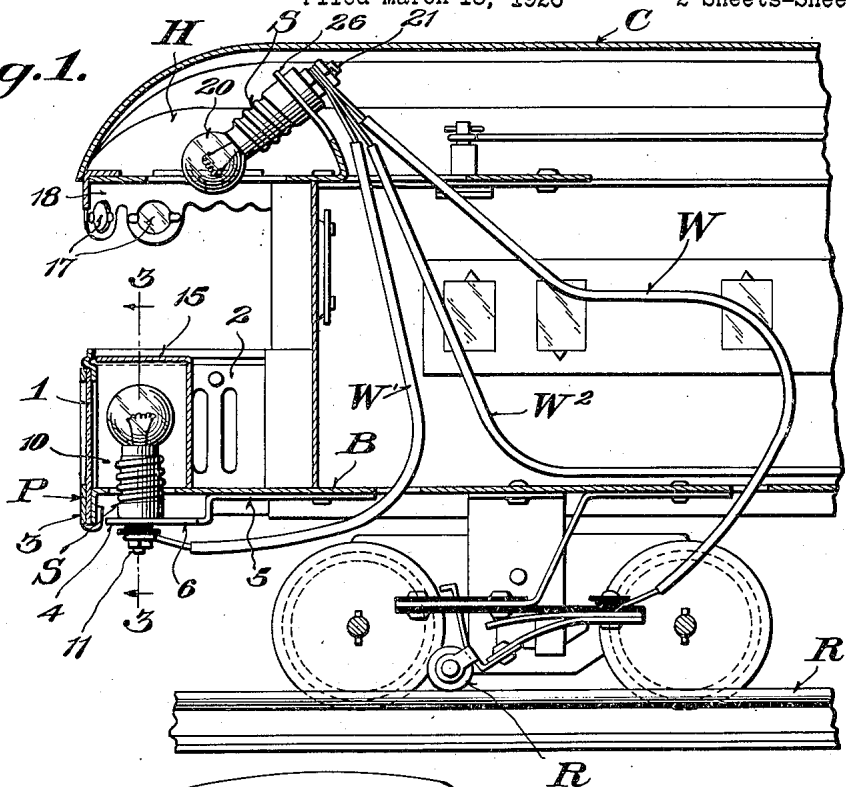


Fig. 2.

Inventor
Harry S. Becker,
S. F. Woodhouse
Attorney

June 19, 1928.

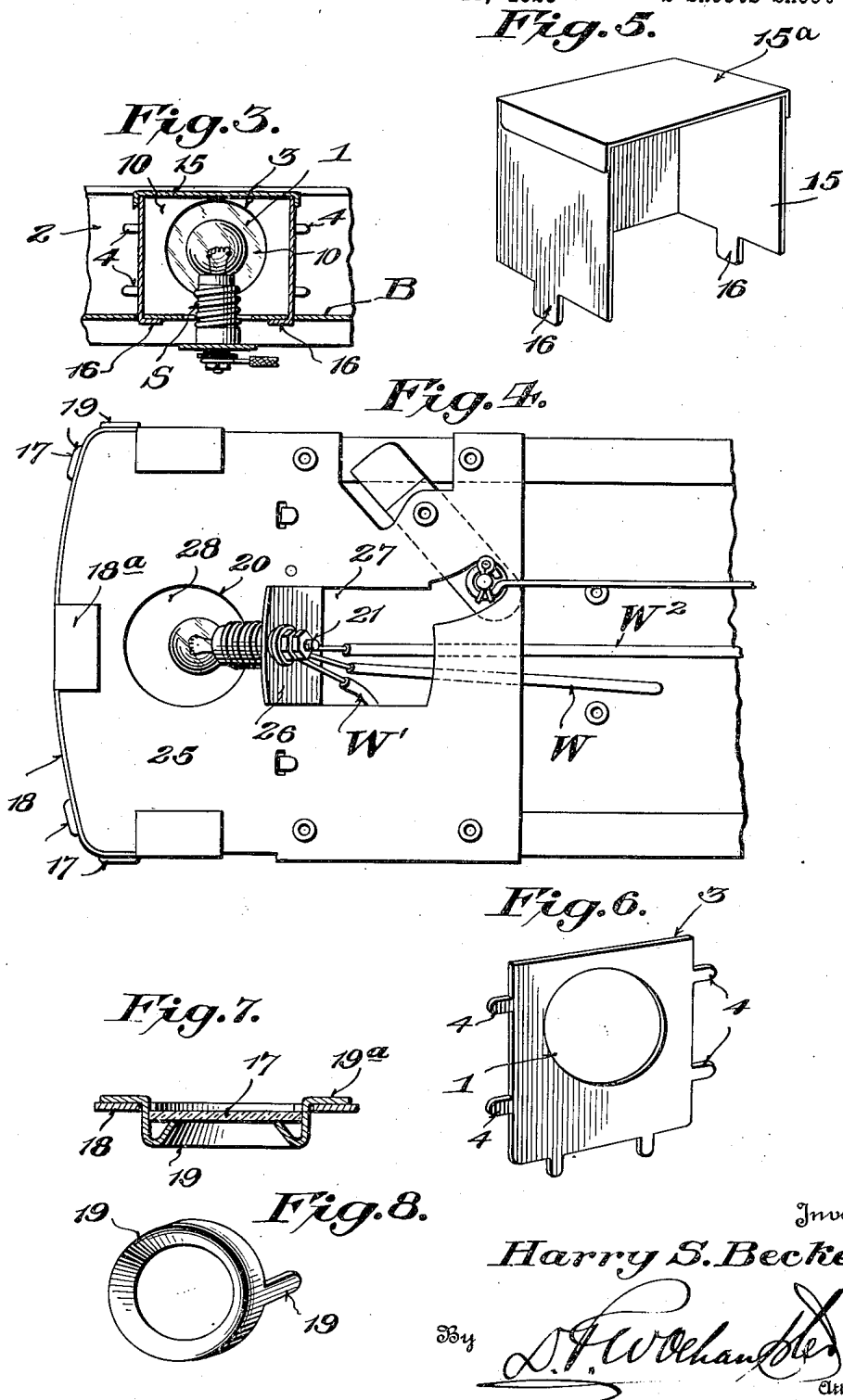
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H. S. BECKER

LIGHTING SYSTEM FOR TOY OBSERVATION CARS

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2 Sheets-Sheet 2



Inventor

Harry S. Becker,

S. F. W. Chandler
Attorney

UNITED STATES PATENT OFFICE.

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

LIGHTING SYSTEM FOR TOY OBSERVATION CARS.

Application filed March 18, 1926. Serial No. 95,746.

This invention relates to toy railway cars and more particularly to a novel improvement in a car of the observation type whereby it may be made to more effectually simulate the appearance of the observation cars used on famous standard trains.

Accordingly, a primary object of the invention is to provide a novel observation-end construction including a self-contained lighting unit for the rear of a toy railway observation car to illuminate a sign mounted on said rear end, and also provide a self-contained lighting unit attached to the upper rear portion of the car to illuminate the canopy of the observation platform.

A further object is to provide a lighting fixture attached to the rear platform rail and to the bottom of an observation car platform and so mounted as to illuminate a sign carried by the rail, and another light mounted to illuminate colored inserts attached to the canopy of the car platform whereby desired light and color effects are produced.

A still further object of the invention is to construct a simple, practical and reliable lighting system particularly adapted to toy use because of its ruggedness and simplicity which not only renders it economical to manufacture but better able to withstand the comparatively rough usage to which cars of this character are usually subjected.

In this connection the invention recognizes that in the production of a lighting system of this character it is not only desirable that it be cheaply constructed but that it be simple and strong to adapt it to withstand rough usage and yet preserve the appearance of an expensive toy having the latest construction of observation platform. In toy cars the interior of which are illuminated by lamps the current supply unit is so constructed and arranged that it will pick up current from the third rail or other source irrespective of any other car in the train and in this invention the current so supplied is utilized for lighting sign and canopy illuminating lamps mounted on the observation platform of a toy 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 construction, combination and arrangement of parts herein-

after more fully described, illustrated and claimed.

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

Fig. 1 represents a longitudinal section of the rear portion of a toy railway car embodying this invention.

Fig. 2 is a rear elevation of a toy car so equipped.

Fig. 3 is a detail transverse section taken on the line 3—3 of Fig. 1.

Fig. 4 is a plan view, with the roof or top removed, of the rear portion of a toy observation car showing a light assembly and means for securing a canopy to the car brace which also supports the light.

Fig. 5 is a detail perspective view of the light housing used for housing the light which illuminates the sign on the rear of the car platform.

Fig. 6 is a similar view of an insert retainer for use in connection with the rear car sign.

Fig. 7 is a detail sectional view taken on the line 7—7 of Fig. 2, and

Fig. 8 is a detail perspective view of an insert retainer used in connection with the canopy of the observation platform of the car.

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

A distinctive feature of the present invention is to provide an observation toy car with a lighting system having self-contained lighting units on the rear platform to illuminate a rear sign and the canopy of the observation car platform which extends down from the car roof and overhangs said platform and whereby lighting and color effects are produced.

Accordingly, with these objects in view it is proposed to equip the car designated generally as C with a main feed wire W suitably connected with a contact roller R which is designed to travel on the third or power rail R' to pick up current from said rail and conduct it to the terminal of an electric lamp 20 located under the roof or hood H which overhangs the rear platform P.

The car C is composed of metal and operates to ground the screw-shell contacts S of the lamps used on the car and which

are supplied with current from the main feed wires W and W'.

The observation platform P of the car C has a glass or equivalent transparent sign 1 mounted on the rail 2 of the platform which rail may be slotted to simulate an observation railing. This sign 1 is carried by a frame or retainer 3 shown in detail in Fig. 6, said frame being equipped with bendable lugs 4 for securing it to the rail 2.

A lighting assembly 10 is mounted on the platform P and projects upwardly through the bottom B of said platform, and is carried by a bracket 5 secured to the lower face of the platform bottom B with the end 6 thereof which carries the lighting assembly offset downwardly from said bottom as is shown clearly in Fig. 1.

The light 10 is shown mounted in a housing member 15 secured to the car platform bottom by means of lugs 16 extending from the lower edges of the housing and designed to be passed through the platform bottom and clinched on the under face thereof. This housing which includes the member 15 and removable cap 15^a when in operative position is closed on all sides except at the front so that all rays of the light from the lamp 10 will be reflected through the sign 1. The removable cap 15^a permits access to the lamp socket for purposes of replacing the lamp therein.

A conductor wire W' leads from the terminal 11 of the lamp 10 to the terminal 21 of the lamp 20 located under the hood H over the platform P. This lamp 20 as shown is located centrally under said hood and the light rays emanating therefrom pass out through colored inserts 17 arranged in a depending canopy 18 carried by the hood H. These inserts 17 may be of any desired or suitable transparent material and colored as desired being shown arranged at opposite ends of the canopy and preferably one is colored red and the other green to indicate right and left sides of the car respectively.

These inserts 17 are mounted in suitable frames 19 shown equipped with bendable lugs 19^a for fastening said frames to the canopy. Any desired number of these inserts may be employed four being here shown two at opposite sides of the car and two at the end thereof near the opposite sides. The canopy 18 is mounted on a brace 25 mounted in the hood H and shown in the form of a plate having a tongue 26 struck out therefrom and bent upwardly and inclined to form a supporting bracket for the lamp 20, the lead wires W, W' and W² extending through the opening 27 formed by striking out the tongue 26 and engaged with the lamp terminal 21. The plate 25 has another opening 28 formed therein through which the bulb of the lamp 20 projects and which is inclined so as to shed the light rays there-

from toward the canopy 18 and cause them to pass out through the colored inserts 17 in said canopy. This light 20 also operates to illuminate platform P as well as the inserts in the canopy.

The canopy 18 is shown provided with a plurality of bendable lugs or nibs 18^a which are inserted through slots in the plate 25 and bent flat thereagainst as is shown clearly in Figs. 1 and 4, the canopy being mounted on this brace when the car is being assembled, and is held in place thereby.

In addition to the feed wires W and W' which supply current to the lamps 10 and 20 and which are mounted on the terminal 21 of lamp 20 another wire W² is also mounted on this terminal and extends forwardly into the car C for connection with a lamp at the front of the car, not shown.

From the foregoing it will be apparent that when the car C is placed on the track the roller R will engage the third rail R' and current will be fed from said rail through the roller and the connection between it and the wire W, through said wire to the terminal 21 of the light 20, and said lamp being grounded on the car the circuit will be completed and the lamp lit. Simultaneously current will be fed through the wires W' and W² to the lamp 10 on the platform and to the lamp, not shown, in the car.

It will thus be seen that when the lamps 10 and 20 are so lighted the sign 1 on the railing of the observation car platform will be illuminated giving it the appearance of a regulation railway car. At the same time the light 20 will illuminate the canopy 18 of the platform and cause the red and green inserts 17 located at the right and left respectively of the car to be illuminated as is usual in railway trains and these inserts with green and red glasses or other transparencies indicate the right and left sides respectively of the train, the red light being on the left side of the train and the green on the right. At the same time the interior of the car C is lighted by means of the current fed through the conductor wire W².

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. In a toy metal observation car for miniature electric railways, the combination with a platform at one end of the car and an overhanging roof cooperating therewith to provide a canopy, of a railing mounted at the edge of the platform, a transparent plate constituting a sign located at the rear of

said platform, a lamp box having an electric lamp therein mounted behind the plate and concealing the light from the lamp except where it is projected through the plate, and
 5 an electric lamp mounted in the roof and illuminating the platform.

2. A toy metal car for miniature railways having the bottom thereof extended beyond the end to provide a platform, a railing at
 10 the edge of the platform, a transparent medium supported at the position of the railing, a lamp box behind the railing and a housing carried by the platform and including a housing member having a back and side walls
 15 for surrounding the illuminating means, and a top member removably fitted to said housing member.

3. A toy metal car for miniature railways having the bottom thereof extended to provide a platform, said platform having an
 20 opening, a railing at the edge of the platform, a transparent sign carried by the railing, a lamp housing secured to the platform at the opening and including a removable
 25 top member, and a lamp socket supported from the bottom of the car and projecting through said opening.

4. A toy railway observation car having a platform railing with a transparent sign
 30 mounted thereon, a lamp housing arranged at the rear of said sign on said platform and closed except at the front opposite said sign, a lamp extending through the platform bottom into said housing for illuminating
 35 the sign, an offset bracket carried by said platform bottom to support said lamp and current supply means connected with the lamp.

5. A toy railway observation car having a platform with an overhanging hood,
 40 a brace in the form of a plate connecting said hood with the car and having an out-struck tongue bent upwardly and rearwardly to form a bracket, an electric light
 45 lamp supported by said bracket, said plate having an opening through which the lamp bulb projects, feed wires for said lamp extending through the opening formed by the
 50 striking out of the tongue, and a canopy carried by said hood and having transparent inserts arranged to receive the light rays from said lamp whereby said inserts are illuminated.

6. A toy car including a bottom portion
 55 projecting beyond one end thereof to provide a platform, a plate-like member arranged at

the top of the car body and having an opening, the part of said plate-like member having the opening overlying the platform, a
 60 bracket formed from said plate-like member, a lamp socket carried by said bracket and adapted to receive a lamp for illuminating the platform, and a canopy strip carried by the said plate-like member and depending therefrom, and colored transparent members
 65 carried by said canopy strip.

7. A toy observation car having an observation platform and a roof portion projecting above the platform, a canopy strip having
 70 openings depending from the roof, transparent members for said openings, and ring-like frame members having bendable lugs for engaging with the canopy strip to secure the transparent members in place.

8. In a toy metal car for miniature railways, an observation-end construction including a slotted metal member simulating a
 75 railing, a transparent indicia carrying member fitted to said member simulating the railing, and a canopy including in combination
 80 with the roof of the car, a metallic strip projecting below the roof and provided with openings fitted with transparent inserts, and means for illuminating the transparent inserts.

9. In a toy metal car for miniature railways, an observation-end construction including a slotted metal member simulating a
 85 railing, a transparent indicia carrying member fitted to said member simulating the railing, and a canopy including in combination
 90 with the roof of the car, a metallic strip projecting below the roof and provided with openings at the back and sides, transparent inserts for said openings and means for illuminating the transparent inserts.

10. An observation-end construction for toy metal cars used on miniature railways including a platform, a metallic member
 100 simulating an observation railing arranged around the edge of the platform, a transparent indicia bearing member fitted to said member simulating the railing, a canopy including in combination with the roof of the car, a metallic part projecting below the
 105 edge of the roof and having openings, transparent inserts fitted in said openings, and illuminating means arranged in said canopy.

In testimony whereof I hereunto affix my signature.

HARRY S. BECKER.