Nov. 3, 1925. 1,560,499

H. S. BECKER ET AL

TOY MAIL BAG LOADING MECHANISM

Original Filed Dec. 8, 1924 2 Sheets-Sheet 1

Fig. 1.

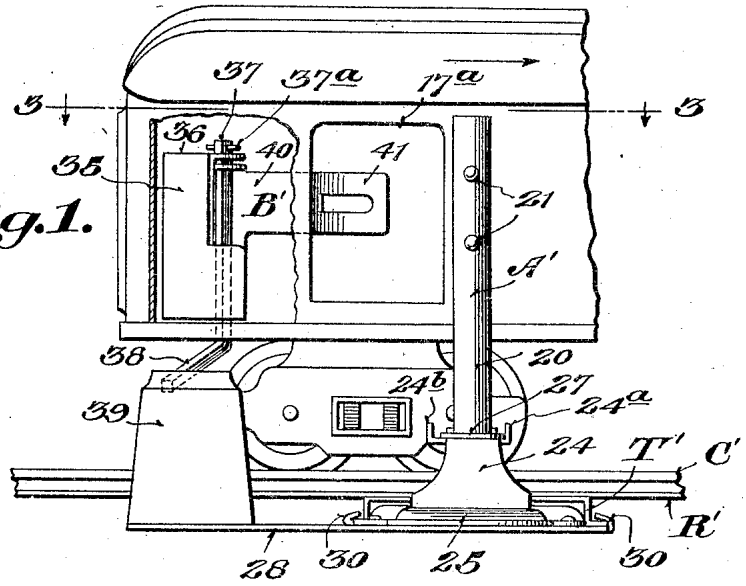

Fig. 2.

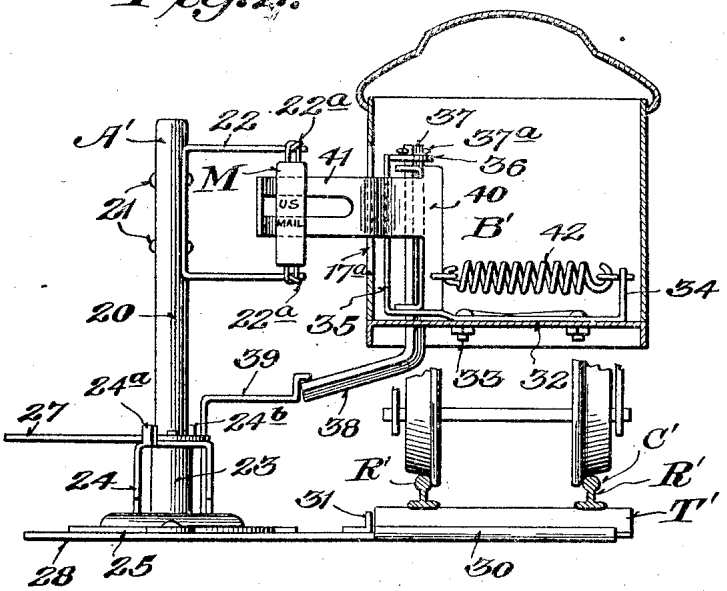

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Fig. 3.

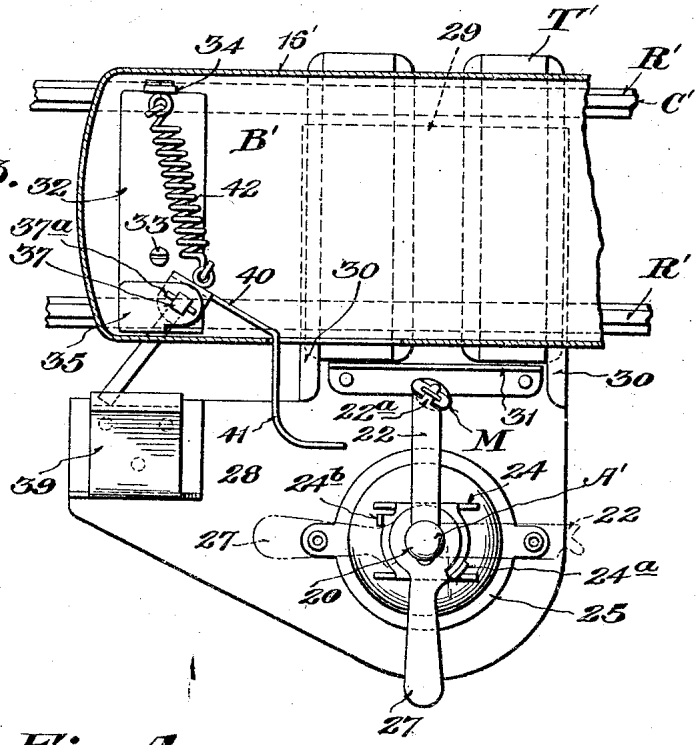


Fig. 4.

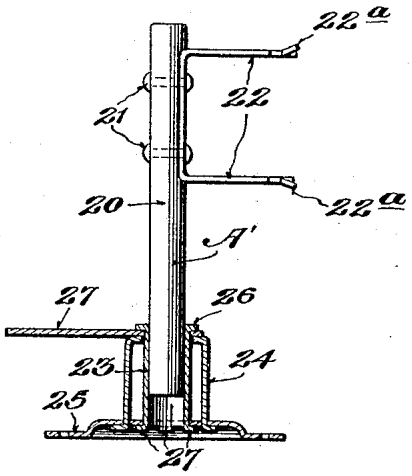
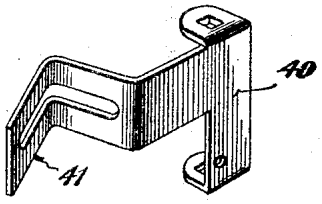


Fig. 5.



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UNITED STATES PATENT OFFICE.

HARRY S. BECKER, OF RIVER FOREST, AND EARL BOISSELIER AND GUY F. SCHUMACHER, OF CHICAGO, ILLINOIS, ASSIGNORS TO AMERICAN FLYER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TOY MAIL-BAG-LOADING MECHANISM.

Original application filed December 8, 1924, Serial No. 754,590. Divided and this application filed April 20, 1925. Serial No. 24,666.

To all whom it may concern:

Be it known that we, HARRY S. BECKER, EARL BOISSELIER, and GUY F. SCHUMACHER, citizens of the United States, residing, respectively, at River Forest, and Chicago, and Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toy Mail-Bag-Loading Mechanism, of which the following is a specification.

This invention relates to toy railways, and more particularly to a toy mail bag loading mechanism adapted for use in connection with mechanically or electrically operated trains.

A primary object of the invention is to provide a toy construction of the character set forth having novel features of construction which enable it to simulate the operation and action of automatic mail bag catching and loading apparatus used on cars in the railway mail service, and of the general type set forth in our copending application, Serial Number 754,590, filed December 8, 1924, of which the present case is a division.

Another object of the invention is to provide a novel and practical toy construction including a mail bag catching and loading device adapted to be arranged within the car in such a way that it is normally held within the limits of the car but upon approaching the loading station becomes automatically set to receive and gather in the mail bag.

A further object of the invention is to provide a novel mail bag carrier or support which may be selectively set to an operative or inoperative position as desired. That is to say, the present construction aims to provide a mail bag support having mail bag holding means adapted to be shifted into or out of the path of the mail bag catching mechanism carried by the car.

A still further object of the invention is to provide a mail bag support adapted to be attached to the ties of the trackway in such a manner as to not only properly locate the mail bag support with reference to the track, but also permit of the carrier for the mail bag support to serve the function of a clamp for uniting the ties of adjacent sections of track.

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, and combination of parts hereinafter more particularly referred to, illustrated and claimed.

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

Figure 1 is a detail side elevation of the improved form of the invention illustrated herein.

Figure 2 is an end elevation, partly in section, of the construction shown in Figure 1.

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

Figure 4 is a detail elevation, partly in section of the mail bag support.

Figure 5 is a detail perspective view of the mail bag catching arm shown in Figures 1 and 2.

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

As previously indicated, the distinguishing features and characteristics of the present construction reside in the provision of a mail bag support designated generally as A′ and adapted to rotate on an axis, thereby to bring the mail bag supporting means into and out of the path of the mail bag engaging arm of the mail bag catching device B′ mounted within the car. The latter unit B′ is so constructed, as will presently appear, that the mail bag engaging arm thereof is normally held within the limits of the car, and is automatically projected outwardly just before it reaches the position of the suspended mail bag thereby to engage the same and throw it into the car at the proper instant.

Also, the mail bag support A′ is detachably or releasably connected to the track C′ which may be of the conventional type, consisting of the rails R′ connected by the ties T′ in the usual manner, whereby the base which carries the mail bag support may be detachably fitted to a pair of adjacent ties T′ on adjacent track sections thereby to hold the sections together and guard against accidental separation. Thus, while the present mail bag support is attached to and carried by the trackway, nevertheless, it will be

understood that the same is preferably attached to the ties instead of directly to the rails.

Referring first to the mail bag support A' it will be observed that the same includes a standard or post 20 having fitted thereto by fastenings 21 a suitable bracket which includes the spaced offset resilient arms 22, having the angularly disposed hooks 22[a] for receiving the loops or equivalent elements at the end of the mail bag M, the said hooks being inclined in the direction of travel of the train for the purpose heretofore indicated.

The said post 20 is mounted at its lower end in a sleeve 23 which has a rotary fit in an opening formed in the top wall of a yoke member 24 carried by a plate 25 while the lower end of said sleeve also has a rotary fit in an opening in the base provided within the zone of the yoke 24. When the sleeve 23 is thus assembled in the yoke piece 24 and plate 25 the upper end thereof may be flanged outwardly as indicated at 26 thereby to clamp a handle member 27 between such flange and the top of the yoke while the bottom of the sleeve may be flanged as at 27 to prevent the same from being lifted out of the plate 25. The purpose of this construction is to provide a relatively rotary movement for the post 20 in the supporting structure therefor, thereby to permit the post 20 to be rotated on its axis to bring the arms 22 to a position at right angles to the trackway or parallel therewith so that the operator can set the mail bag support to operative or inoperative position with respect to the mail bag catching arm mounted on the car. In order to give the post 20 a movement of approximately 90° the upper part of the yoke 24 may be provided with the stop projections 24[a] and 24[b] as clearly shown in Figure 3, wherein the two positions of the post just referred to may be observed in full and dotted lines.

The plate 25 is suitably secured to a base plate 28 which is provided with an extension 29 adapted to lie beneath the track and having at opposite sides thereof the guide-flanges 30 for engaging the side flanges or equivalent portions of the metallic ties T'. This arrangement permits of the base 28 being applied to the track by slidably fitting the same to a pair of ties, although it will of course be understood that it is within the scope of the invention to make the extension 29 of such a nature that it will engage with only one tie if desired. To prevent the base 29 from being pushed too far inwardly onto the ties a stop flange 31 or its equivalent may be provided.

The mail bag catching and throwing device B' in this form of the invention is preferably mounted within the car except for the mail bag engaging arm thereof which may project through and beyond the wall of the car at the position of the doorway as the mail car approaches a mail-loading station. By reference to Figs. 1 and 2 it will be observed that this device includes a bracket 32 which is of substantially U-shape formation and has the bottom wall thereof secured to the bottom of the car 16' by the fastenings 33. One of the arms 34 of the bracket 32 provides a spring anchorage as will presently appear while the other arm 35 extends upwardly along one side of the car wall, and thence horizontally as indicated at 36 to provide for receiving the upper end of a cranked trip shaft 37. The upper end of this shaft has a cotter pin 37[a] therein adapted to rest on the part 36 and support the shaft, which, as will be seen from the drawing is preferably of square cross section and has another bearing besides the one above referred to, namely one in the bracket 32 and bottom of the car while its lower outer end is offset or cranked as indicated at 38 thereby to engage with a trip device 39 carried by the base 28. (See Figs. 1 and 3.)

The portion of the square shaft 37 within the car has fitted thereto the frame portion 40 of the mail bag catching arm 41. That is to say, the frame 40 is provided with the offset end portions which are formed with square openings for receiving the square shaft 37 so that any movement of the shaft will be imparted through the arm 41. For the purpose of maintaining the frame 40 and arm 41 within the limits of the car door opening when the same is not ready to pick up the mail bag, and also return the arm 41 to normal position, the said frame 40 has a spring 42 connected therewith, the said spring being in turn connected with the spring anchoring arm 34 of the bracket 32. Thus, in this form of the invention the mail bag catching arm need not be extended beyond the limits of the car until just before it reaches the position of the mail bag support, at which time however, it will be projected out into the path of the mail bag due to the trip arm 38 striking the trip abutment 39 on the base as indicated in Fig. 3.

With the construction and arrangement described in Figs. 1, 2 and 3 it will be apparent that the operator has the choice of selectively setting the mail bag support in such a position that it will present the mail bag for pick-up by the train or set it to an inoperative position for the purpose of loading or indicating that no mail is to be picked up from that point. When the support is set in the full line position shown in Figure 3 and the mail bag M is in position it would be apparent that as the car of the train carrying the device B' approaches the position

of the base 28 that the offset portion 38 of the crank shaft 37 will engage with the trip abutment 39 which is relatively long as will be seen from Figs. 1 and 3, thereby to throw the arm 41 out of the doorway 17ª of the car and into the path of the suspended mail sack M. As soon as the arm 41 engages the sack and pulls the same from the hooks 22ª, the spring 42 will exert its influence and snap the arm inwardly and thus throw the mail sack into the car.

In view of the foregoing description it is thought that it will be readily apparent that the present invention aims to provide a toy mail bag loading mechanism including a mail bag support having means for releasably holding a mail bag under tension, and which may if desired be conveniently associated with the track so that little or no experience is required to set the same up. Also, an effective and practical means for removing the mail sack from the support is provided. In the embodiment shown in Fig. 1 a form of standard equipment is shown, means being provided for detachably engaging with the track at any point thereof. That feature not only provides for making the mail loading station at a convenient point in the trackway but also permits of the equipment being readily taken down and stored along with the rest of the apparatus, and furthermore makes the entire toy railway self sustaining.

Without further detailed description it is thought that the features and advantages of the invention will be readily understood by 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 or scope of the appended claims.

I claim:

1. A toy mail bag loading mechanism comprising a bag catching device carried by a car and a bag support adapted to be attached to a track, said bag support comprising a base adapted to engage with the track, and a sleeve rotatably mounted on said base and having a handle, and a post carrying mail bag supporting means fitted into said sleeve.

2. A toy mail bag loading mechanism comprising a bag catching device carried by a car and a bag support adapted to be attached to a track, said bag support comprising a base adapted to engage with the track, a yoke member provided with stop portions fitted to the base, a sleeve having a handle rotatably journaled in the yoke, and a post having mail bag carrying means fitted into said sleeve.

3. A toy mail bag loading mechanism comprising a bag catching device carried by a car and a bag support adapted to be attached to a track, said bag support comprising a base adapted to engage with the track, a strip abutment carried by said base for actuating the mail bag catching device carried by the car, and a mail bag carrying post rotatably mounted in said base.

4. A toy mail bag loading mechanism comprising a bag catching device carried by a car and a combined bag support and mail bag catcher actuating device adapted to be attached to a track, said device including a base having means for engaging with the track, an upstanding abutment at one end of the base for actuating the bag catching device, and a mail bag carrying post rotatably supported on the base adjacent the track.

5. A toy mail bag loading mechanism comprising a combined mail bag supporting and trip device carried by the track, and a mail bag catching device carried by a car, said mail bag catching device comprising a bracket mounted within the car, a shaft mounted in said bracket and having an offset extension projecting exteriorly of the car, and a mail bag catching arm mounted within the bracket and engaging said shaft, and a spring connected with the mail bag catching arm for normally maintaining the same within the car.

6. A toy mail bag loading apparatus comprising a combined mail bag supporting and trip device having means for detachably engaging a track, and a mail bag catching device carried by a car adjacent the doorway thereof, said mail bag catching device comprising a bracket mounted adjacent the doorway, a mail bag catching arm, a shaft connected with said arm and having an offset extension for engaging with the trip device, and a spring for tensioning said mail bag catching arm.

7. A toy mail bag loading mechanism including a mail bag catching device carried by a car, and a combined mail bag support and trip device adapted to be detachably fitted to a trackway, and means for positioning said latter device with reference to the track whereby it will be set in operative relation to the mail bag catching device on the car.

8. In a toy mail bag loading mechanism, a mail bag supporting device including a base having spaced parallel flange portions for engaging with the opposite sides of adjacent ties, means for limiting the inward movement of the base with reference to the ties, and a mail bag support proper also carried by the base and means for adjusting the position of said mail bag support proper.

9. In a toy mail bag loading mechanism, a mail bag supporting device including a base having spaced tie engaging portions and means for setting the base in proper po-

sition with reference to the rails of a trackway, a post having offset mail bag suspending means, means for rotatably mounting said post on the base, and an abutment also carried by the base and adapted to actuate the portion of the mail bag loading mechanism carried by the car.

10. In a toy mail bag loading mechanism, mail bag supporting means adapted to be carried by a trackway and including an abutment, a mail bag catching device carried by a car and including a frame secured within the car, a mail bag catching arm, an angular member of square cross section carried by said arm and pivotally supported in the frame, and said angular member and said arm being mounted to turn together and a portion of said angular member projecting beyond the limits of the car, a spring for normally maintaining said arm within the limits of the car and also maintaining the exterior portion of said angular member in position to engage the said abutment.

In testimony whereof we hereunto affix our signatures.

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EARL BOISSELIER.
GUY F. SCHUMACHER.