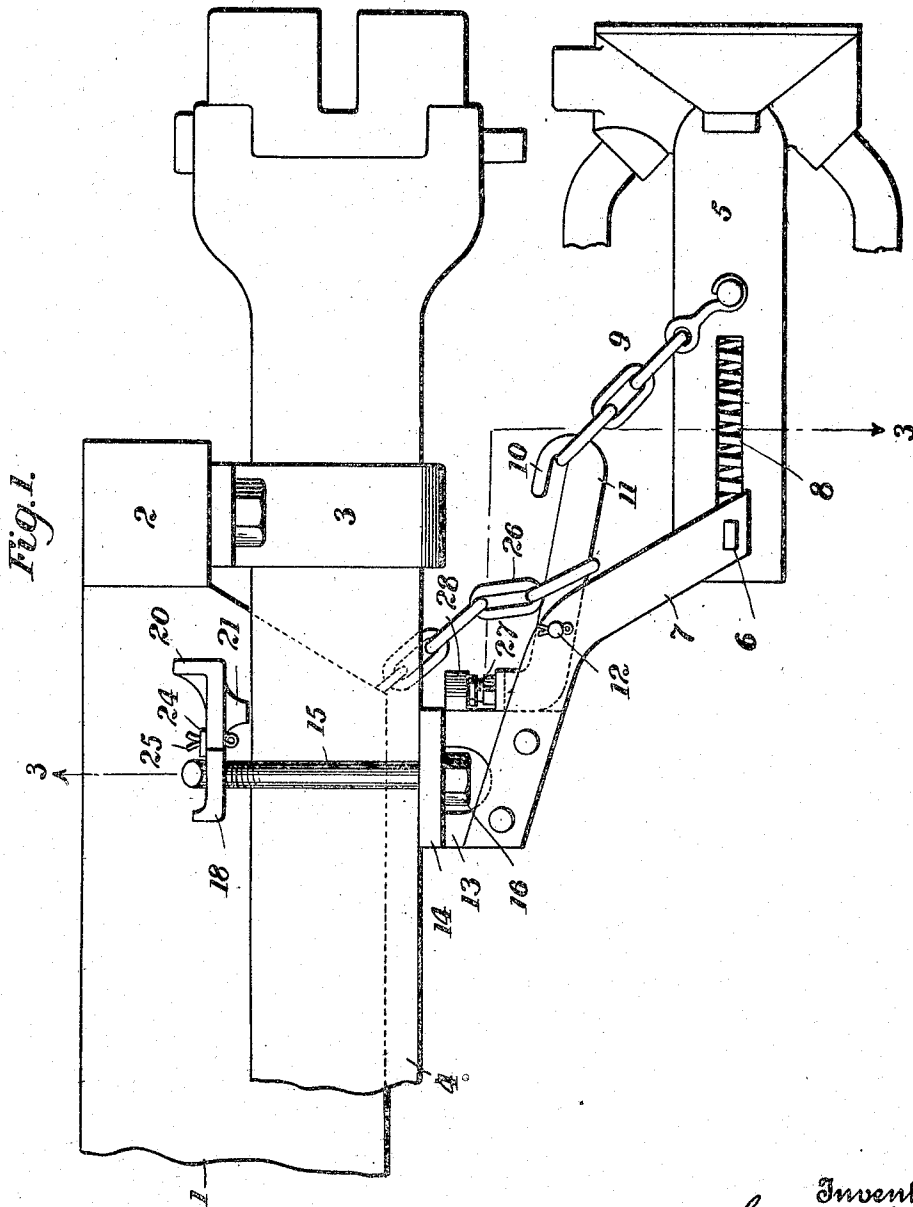


G. E. KELLY & G. F. ROYER.
SUPPORT FOR RAILWAY CAR BRAKE CONNECTORS.
APPLICATION FILED JUNE 14, 1907.

937,534.

Patented Oct. 19, 1909.

2 SHEETS—SHEET 1.



Witnesses
J. J. McCarthy

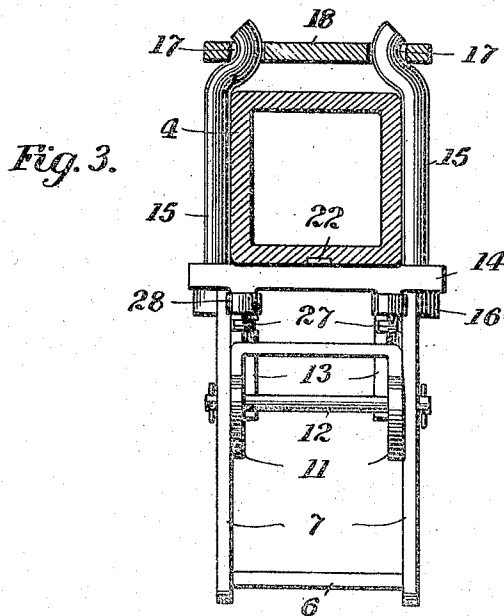
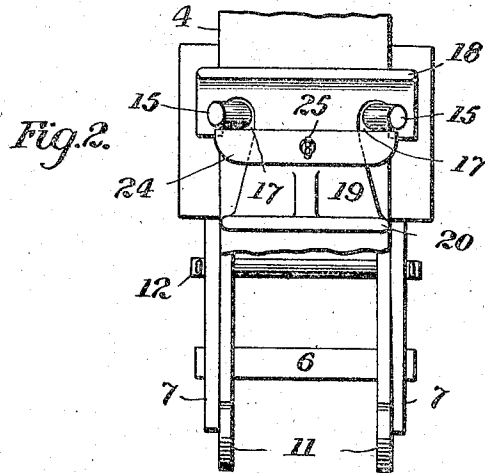
Inventors
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2 SHEETS—SHEET 2



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE E. KELLY AND GEORGE F. ROYER, OF WILKES-BARRE, PENNSYLVANIA,
ASSIGNORS TO THE KELLY-ARNOLD MANUFACTURING CO., OF WILKES-BARRE,
PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

SUPPORT FOR RAILWAY-CAR-BRAKE CONNECTORS.

937,534.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed June 14, 1907. Serial No. 379,015.

To all whom it may concern:

Be it known that we, GEORGE E. KELLY and GEORGE F. ROYER, citizens of the United States, residing at Wilkes-Barre, Luzerne county, State of Pennsylvania, have invented certain new and useful Improvements in Supports for Railway-Car-Brake Connectors, of which the following is a specification.

The present invention relates to improvements in means for supporting the connectors of railway pressure brake apparatus, and has for its object to provide a construction by which the connector will not be disengaged from the car or broken in case the draft coupling of the car to which the connector is secured is drawn from its support on the car.

It is customary to suspend the brake connector from the stem of the draft coupling of a railway car, or in some other manner to support the connector from said coupling. The draft coupling is frequently pulled or drawn from its support on the car, and in case the connector is rigidly attached thereto, it is broken, thus increasing the expense and time incident to again placing the car in condition for use.

It is of course desirable that the connector be so related to the coupler as to move in unison therewith, and the object of the present invention is to provide such a connection between the draft coupler and the brake connector that when the coupler is properly supported on the car they will move together, but in case the coupler is pulled or drawn from its support the connector will be automatically disengaged from the coupler and the movement of the latter from the car will not damage the connector or the brake system.

The invention is illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation, partly in section, of a portion of a railway car having our improvements applied thereto; Fig. 2 is a plan of the means normally connecting the members of the hanger for the brake connector; and Fig. 3 is a view on the line 3—3, Fig. 1.

Referring to the drawings, 1 designates a longitudinal sill of the frame of a railway car, and 2 a cross beam of such frame. The draft coupler is supported from said cross beam by a hanger 3 which surrounds the

stem 4 of said coupler, or in any other suitable manner.

It will be understood that the present invention is not limited to use with draft couplers of any particular style, and therefore in the drawings said coupler and the means connecting it with and supporting it from the car are illustrated more or less conventionally.

The brake connector 5 is, as usual, arranged below the draft coupler and is supported therefrom by means to be hereinafter described.

While the invention may be embodied with brake connectors of various styles, the one shown in the accompanying drawing is similar to that described in our prior applications, Serial Nos. 352,644 and 357,258. The stem of said connector is supported by a cross rod 6 carried by arms 7 and extending through a slot 8 in said stem, and also by chains 9 extending from eyes on said stem to hooks 10 formed at the outer ends of levers 11, which are fulcrumed at 12 upon said arms 7. The arms 7 are rigidly secured to ears 13 depending from a plate 14 which forms the lower member of a stirrup-like hanger, the other members 15 of which extend across opposite sides of the stem of the draft coupler and to points above such stem. As shown the members 15 are formed separately from the plate 14, and have their lower ends connected therewith by suitable nuts 16. Adjacent their upper ends the members 15 of said stirrup hanger are bent inwardly toward each other to extend slightly over the upper surface of the stem of the draft coupler sufficiently to obtain a bearing thereon. Normally the ends of said members 15 extend through slots 17 formed in a plate 18 and opening through one edge or face thereof, the upper ends of said rods being preferably bent outwardly to overhang the upper surface of said plate somewhat, as shown. The plate 18 is provided at its forward end with a tapering portion 19, terminating in an upturned flange or rim 20, and has on its lower face a depending web or lug 21 adapted to rest upon the stem of the draft coupler. By this connection the hanger for the brake connector is supported on the draft coupler and held from moving vertically relative thereto, and the plate 14 of said hanger is preferably provided with

a teat or projection 22 that enters a suitable seat in the lower surface of the stem of the draft coupler so that the brake connector is attached to said coupler to move therewith during the ordinary movements due to the motion of the car, etc.

To retain the members 15 of the connector hanger in proper position in the slots in the plate 18 a retaining plate 24 is provided, said plate being connected with the member 19 of the plate 18 by a cotter pin 25 and extending across the open ends of the slots 17.

During the ordinary movements of the draft coupling the connector will move therewith as above stated. If, however, the said coupler be subjected to a sudden and severe pull which is sufficient to disengage it from its support on the car, the forward end 20 of the plate 18 will come into contact with the beam 2 and the plate 24 will be struck by the members 15 of the connector supporting hanger with such force as to shear off the pin 25, thus releasing the plate. As the draft coupler is drawn from its support the plate 18 will be moved from engagement with said hanger members 15 and the latter will be positively separated by the tapered portion 19 of said plate, and thereby the said hanger and the connector supported thereby will be released and allowed to fall from the draft coupler. To limit the downward movement of the connector when thus released from the draft coupler, an auxiliary support, shown as consisting of chains 26, is arranged between the car frame and the levers 11 of the connector support. This auxiliary support normally does not support the connector and is of such length as to permit free movement thereof to accommodate itself to the vibrations of the car, and changes in the direction of movement thereof, etc.

The levers 11, by which the relation of the connector 5 to its supporting arms 7 is controlled, are adapted to be adjusted by means of screws 27 working between the rear ends of said levers and suitable abutments 28 on the aforesaid ears 13 of the plate 14. By adjusting said screws the connector can be bodily moved about the axis of the cross bar 6 and held at any desired elevation.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is—

1. In a railway car, the combination with a draft coupler supported by the car, and a brake connector, of a hanger secured to the connector and normally extending about the draw bar of the coupler and adapted to be automatically disengaged from the coupler if the latter is drawn from its support on the car.

2. In a railway car, the combination with a draft coupler supported by the car, and a brake connector, of a hanger secured to the

connector and having its members extending on opposite sides of the stem of the draft coupler, and means connecting the upper ends of the members of said hanger to normally hold the latter in position to support the connector from the coupler and adapted to be automatically disengaged from said hanger if the coupler is drawn from its support on the car.

3. In a railway car, the combination with a draft coupler supported by the car, and a brake connector, of a support for the connector comprising a hanger adapted to extend beneath and across opposite sides of the stem of the coupler, a plate supported on the coupler stem and having slots adapted to receive the members of the hanger, and means for holding said plate in engagement with the hanger and adapted to be automatically shifted to release the hanger and connector from the coupler if the latter is drawn from its support on the car.

4. In a railway car, the combination with a draft coupler supported by the car, and a brake connector, of a hanger attached to the connector and normally extending about the draw bar of the coupler, means for automatically disengaging said hanger from the coupler if the latter is drawn from its support on the car, and auxiliary means for supporting the connector from the car when thus disengaged from the coupler.

5. In a railway car, the combination with a draft coupler supported by the car, and a brake connector, of a U-shaped hanger attached to the connector and having its members normally extending across the sides of the draw bar of the coupler, means connecting the members of said hanger above the draw bar of the coupler and adapted to be automatically disengaged therefrom if the coupler is drawn from its support on the car, and auxiliary means for supporting the connector from the car when thus disengaged from the coupler.

6. In a railway car, the combination with a brake connector, of a support comprising two arms with which the body of the connector is pivotally connected, levers fulcrumed on said arms and connected at one end with the connector, and adjusting screws arranged between abutments on the support and the other arms of said levers.

7. In a railway car, the combination with a draft coupler supported by the car, and a brake connector, of a hanger secured to the connector and having its members extending across opposite sides of the stem of the coupler, said members being bent inwardly above said stem to engage the upper surface thereof, means connecting the upper ends of the members of the hanger and adapted to be automatically disengaged therefrom if the coupler is drawn from its support on the car, and means for positively separating the

members of the hanger as they are thus released.

8. In a railway car, the combination with a draft coupler supported by the car, and a
5 brake connector, of a hanger secured to the connector and having its members extending across opposite sides of the stem of the coupler, said members being bent inwardly
10 above said stem to engage the upper surface thereof, and a plate supported above the stem of the draft coupler and having in its forward edge slots adapted to receive the
15 upper ends of said vertical members of the hanger, said plate being projected forward between said slots and adapted to come in
20 contact with a portion of the car frame when the draft coupler is drawn from its support on the car, whereby said hanger members will be released from said plate.

9. In a railway car, the combination with a draft coupler supported by the car, and a
25 brake connector, of a hanger secured to the connector and having its members extending across opposite sides of the stem of the coupler, said members being bent inwardly

above said stem to engage the upper surface thereof, a plate supported above the stem of the draft coupler and having in its forward edge slots adapted to receive the upper ends of said vertical members of the hanger, said
30 plate being projected forward between said slots and adapted to come in contact with a portion of the car frame when the draft coupler is drawn from its support on the car, whereby said hanger members will be
35 released from said plate, a supplemental plate connected with said slotted plate by a connection adapted to be broken when the latter contacts with the car frame, said supplemental plate extending normally across
40 said slots, and means for positively separating the vertical members of said connector hanger as they pass from said slots.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE E. KELLY.
GEORGE F. ROYER.

Witnesses:

JOHN J. O'DONNELL,
EDWARD N. NOLL.