H. C. BUHOUP.

DRAFT APPLIANCE FOR RAILWAY CARS.

APPLICATION FILED DEC. 28, 1908.

944,844.

Patented Dec. 28, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

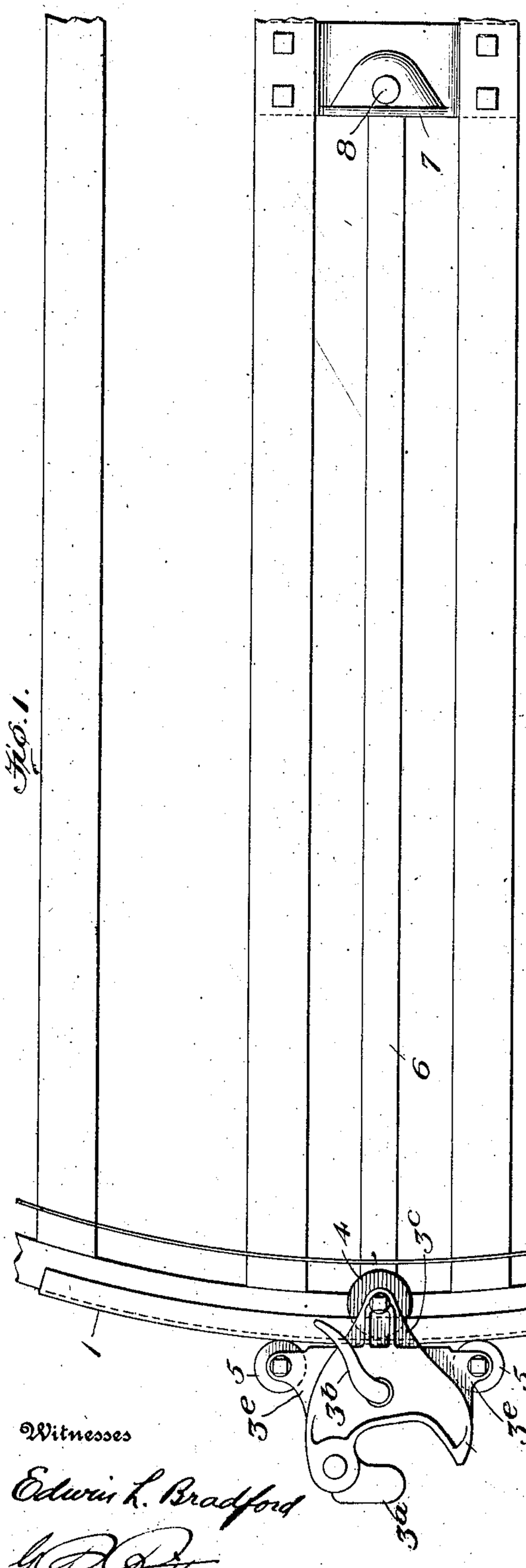
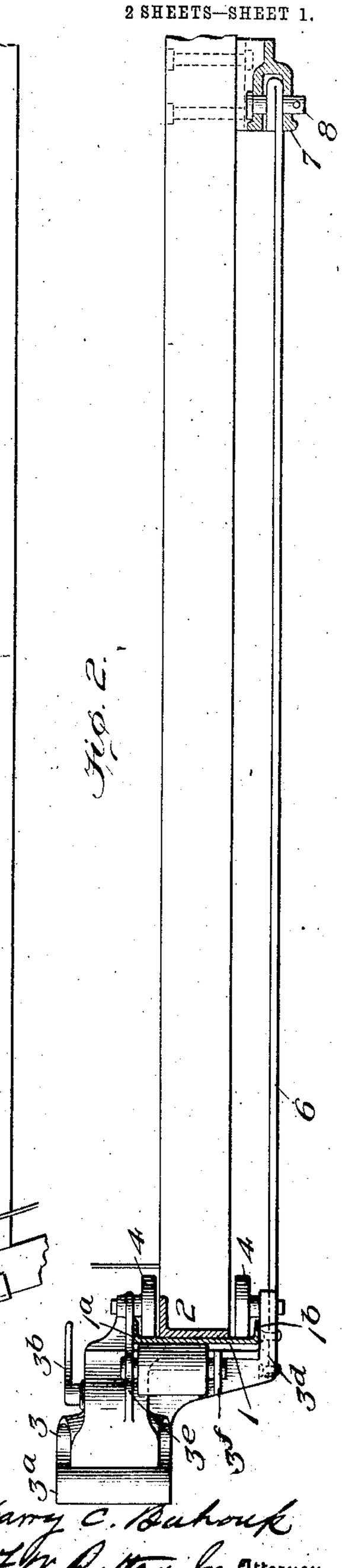


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

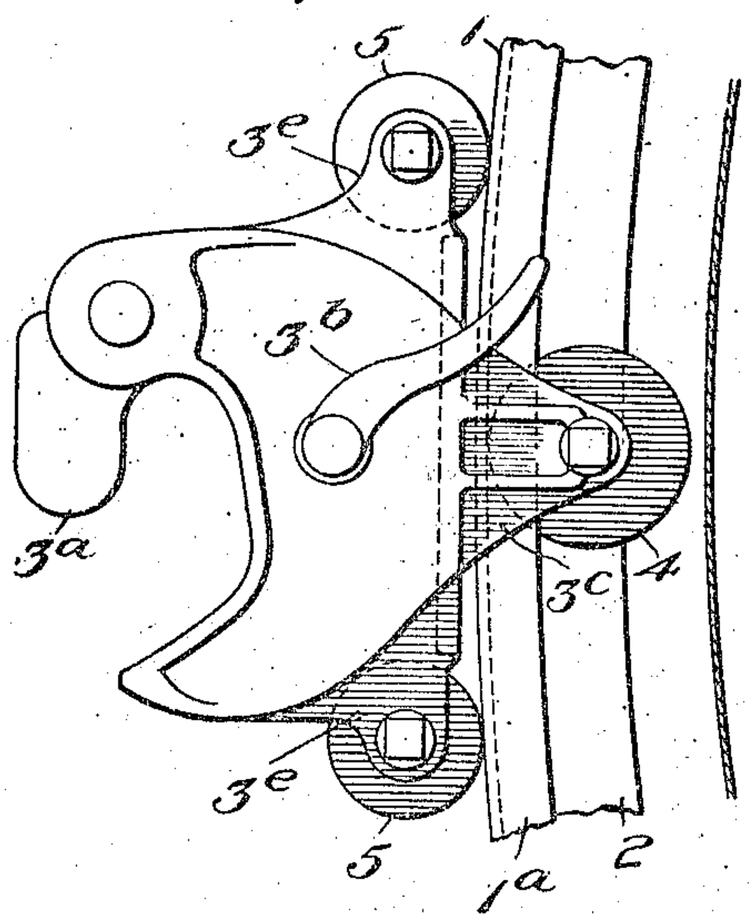


Fig. 3.

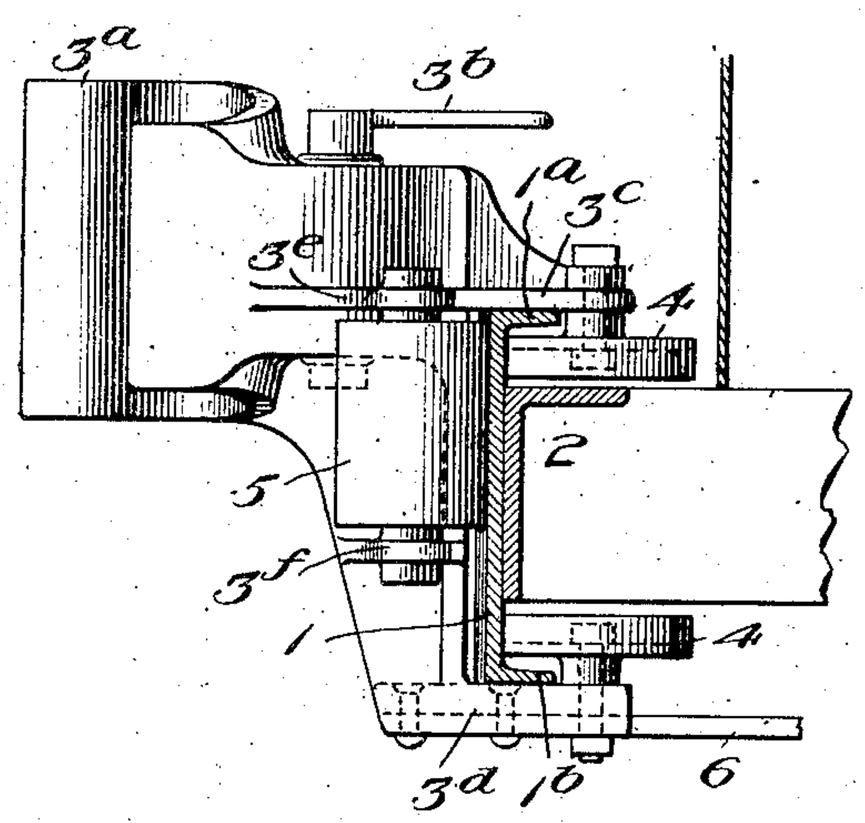


Fig. 5.

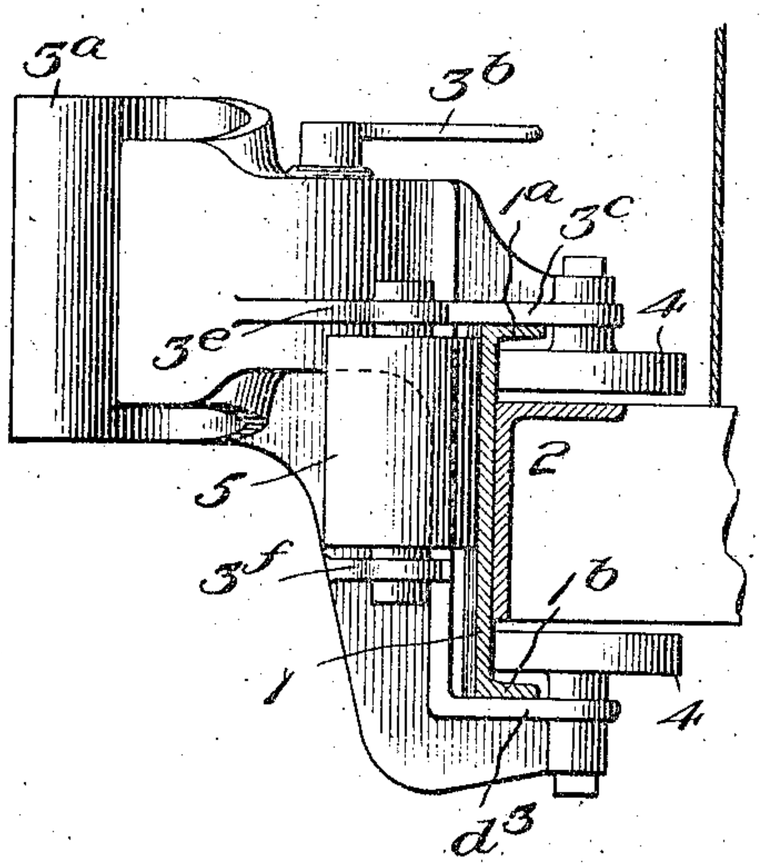
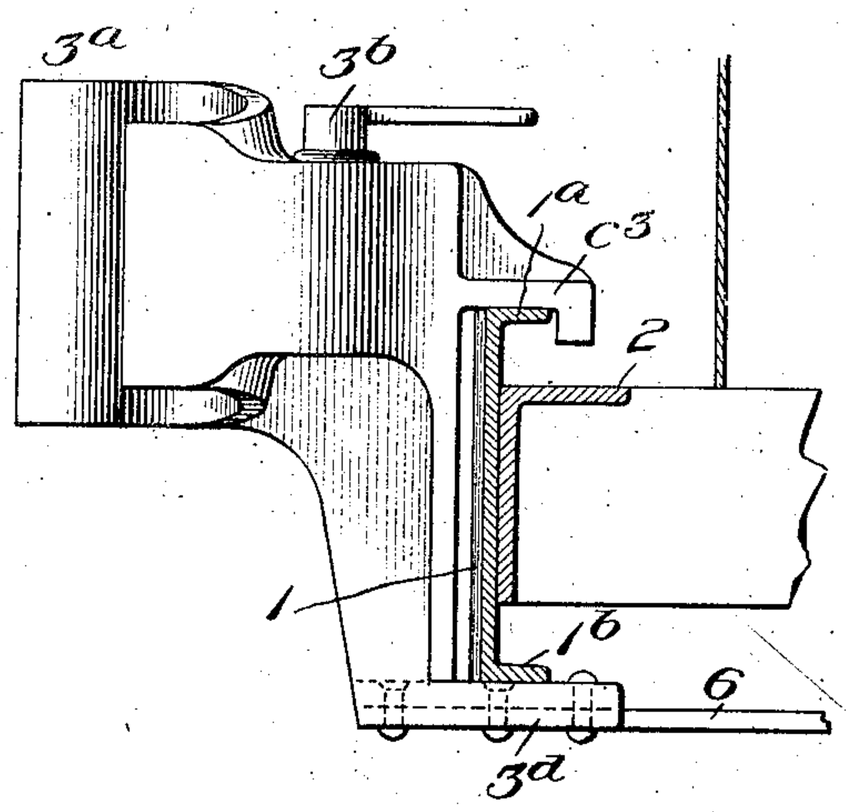


Fig. 6.



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UNITED STATES PATENT OFFICE.

HARRY C. BUHOUP, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE McCONWAY & TORLEY COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

DRAFT APPLIANCE FOR RAILWAY-CARS.

944,844. Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed December 28, 1908. Serial No. 469,546.

To all whom it may concern:

Be it known that I, HARRY C. BUHOUP, 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 Draft Appliances for Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the construction of draft appliances for railway cars and is particularly directed to the manner of mounting a coupler on the platform of a car, the principal object being to provide a simple and durable construction, which will permit a coupler so mounted to have as extended lateral swinging movement as is usually accomplished by locating the coupler beneath the car platform.

A draft appliance constructed in accordance with my invention affords a most efficient means for coupling the car to which it is attached to a car having a higher platform.

To this end my invention, generally stated, consists in providing the platform or end sill of a car with a curved guide rail upon which the coupler travels, said rail affording substantially unyielding support to the coupler both vertically and longitudinally of the car, and the coupler being provided with parts or devices which transmit draft and buffing forces to the said guide rail. Certain elemental constructions and combinations of parts are also features of my invention, as will hereinafter more fully appear.

In the drawings chosen for the purpose of illustrating my invention, the scope whereof is pointed out in the claims, Figure 1 is a plan view of a draft appliance embodying my invention, parts of the car framing to which it is attached being also shown; Fig. 2 is a side elevation of the devices shown in Fig. 1; Fig. 3 is an enlarged view showing in side elevation the principal parts of the device illustrated in Figs. 1 and 2; Fig. 4 is a plan view illustrating a form of the draft appliance in which the radius bar shown in Figs. 1, 2 and 3 is omitted; Fig. 5 is a side elevation of the devices shown in Fig. 4; and Fig. 6 is a view showing in side elevation a further form of draft appliance embodying my invention.

Like symbols refer to like parts wherever they occur.

I will now proceed to describe my invention more fully so that others skilled in the art to which it appertains may apply the same.

In the drawings, 1 is a circularly curved guide rail which is secured in any suitable manner to the outer face of the platform or end sill 2 of the car. The guide rail is preferably provided with upper and lower horizontal flanges, indicated at 1^a and 1^b, respectively, which engage portions of the coupler 3 and support it against vertical movements. Both the supporting flanges 1^a and 1^b preferably extend rearwardly, so that the guide rail 1 is in the form of a channel. As it is usually preferred to interpose rollers between the coupler and guide rail, the latter is extended above and below the platform 2 a sufficient distance to afford clearance for the rear rollers 4 which bear upon the inside of said guide rail.

The coupler 3 is formed with a head upon and within which are mounted a knuckle 3^a and a lock 3^b, both of which may be of any well known or suitable construction. Secured to the coupler head, and preferably forming an integral casting therewith, is a rearwardly extending bracket having upper and lower jaws 3^c, 3^d, respectively, which receive the guide rail 1 between them, the flanges 1^a, 1^b of said guide rail bearing against the opposed faces of said jaws to thus restrain the coupler from vertical movement either upwardly or downwardly.

In the construction shown in Figs. 4 and 5, wherein the radius bar is omitted, the lower jaw d^3 of the bracket portion of the coupler varies somewhat in form from the construction shown in the remaining views, while in the modification shown in Fig. 6 in which the rollers are omitted the upper jaw c^3 is provided with a depending vertical flange or lug which extends downwardly behind the rear face of the flange 1^a of the guide rail and thus not only transmits draft forces to the said guide rail, but also prevents the coupler head from sagging.

In order to facilitate the travel of the coupler upon the guide rail 1, it is preferred to employ rollers which are journaled

on the bracket portion of the coupler and which are arranged to receive the said guide rail between them. The rollers 4 which engage the inner face of the guide rail are preferably located in the longitudinal axis of the coupler, one of them being arranged above the platform 2 and the other beneath it. The rollers 5, which bear upon the front face of the guide rail 1, are preferably journaled in perforated lugs 3^e, 3^e and 3^f, 3^f that extend horizontally from opposite sides of the coupler head.

In order to prevent any possible binding of the coupler upon the guide rail, a radius bar, such as 6, may be employed. The forward end of the radius bar is rigidly attached to the coupler bracket beneath the guide rail 1, and its rear end is pivotally connected to a suitable bracket casting 7 that is secured to the car framing, the pivot pin 8 by which the radius bar is connected to the bracket 7 being located at the center of the curve on which the guide rail 1 is formed. While the radius bar 6 is not essential, it may be always employed with advantage as it assists in controlling the movements of the coupler, and especially so when no rollers are interposed between the coupler and the guide rail upon which it moves.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a draft appliance for railway cars, the combination with a guide rail which is mounted upon the platform of a car, of a coupler, and rollers interposed between said guide rail and coupler.

2. In a draft appliance for railway cars, the combination with a curved guide rail which is mounted upon the platform of a car, of a coupler, rollers interposed between said guide rail and coupler, and a radius bar secured to said coupler and adapted to be pivotally connected to the car.

3. In a draft appliance for railway cars, the combination with a flanged guide rail, of a coupler, rollers journaled on the coupler and bearing on the outer face of the guide rail, and rollers journaled on the coupler and bearing on the inner face of the guide rail between the flanges thereof.

4. In a draft appliance for railway cars, the combination with a guide rail, of a coupler mounted to slide laterally thereon, and rollers mounted on said coupler and engaging opposite faces of said guide rail, some of said rollers being arranged in the longitudinal axis of the coupler and some of said rollers being arranged on opposite sides of the longitudinal axis of the coupler.

5. In a draft appliance for railway cars, the combination with a guide rail which is mounted upon the platform of a car, of a coupler mounted to move laterally thereon, said coupler being provided with jaws adapted to receive the said guide rail and being also provided with means whereby rollers may be journaled thereon, and rollers journaled on said coupler and engaging said guide rail.

In testimony whereof I affix my signature, in presence of two subscribing witnesses.

HARRY C. BUHOUP.

Witnesses:
D. B. MASON,
G. S. WOOD.