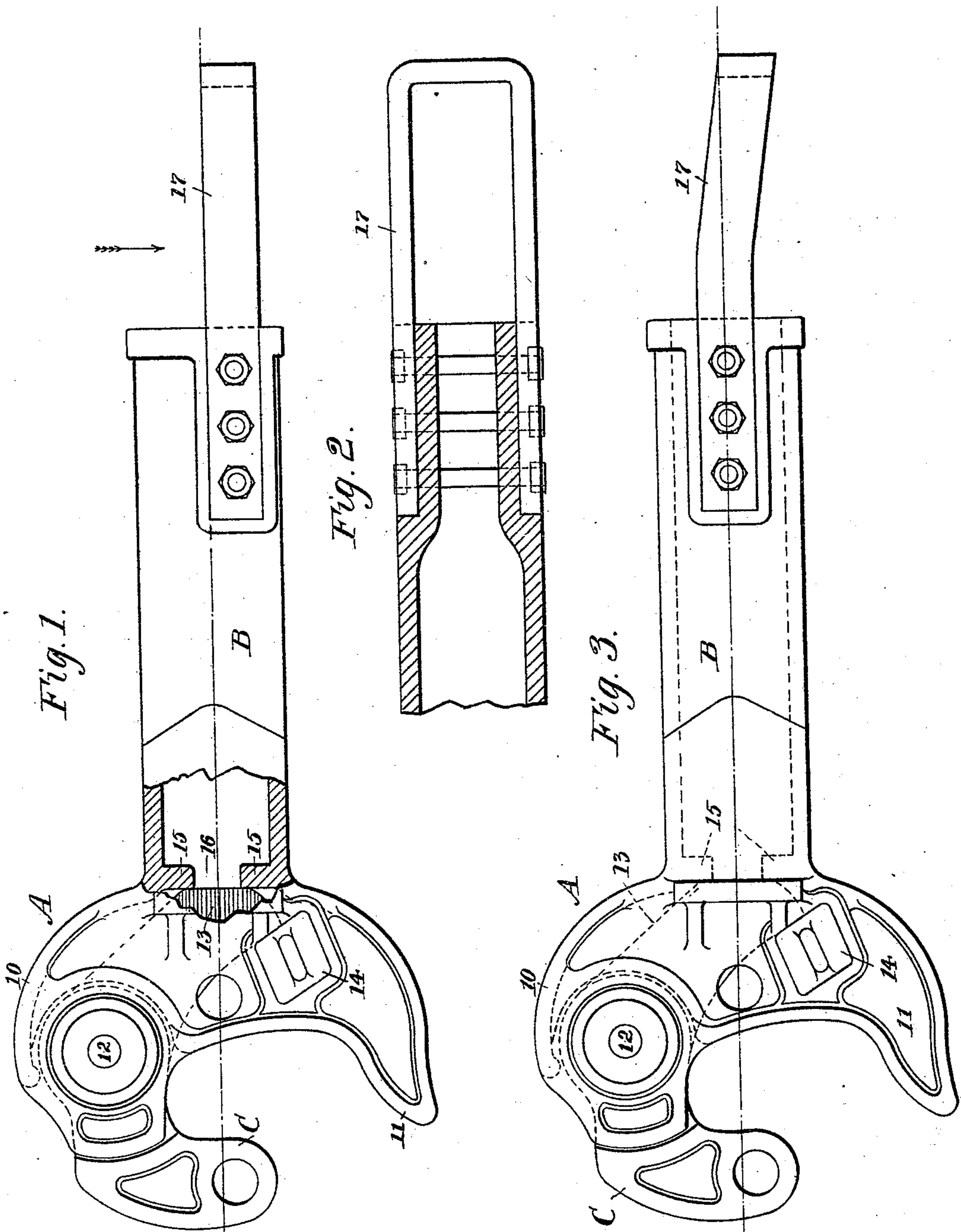


(No Model.)

E. P. EASTWICK, Jr.
CAR COUPLING.

No. 454,723.

Patented June 23, 1891.



WITNESSES:

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EDWARD P. EASTWICK, JR., OF NEW YORK, N. Y., ASSIGNOR TO GEORGE SPENCER EASTWICK, OF NEW ORLEANS, LOUISIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 454,723, dated June 23, 1891.

Application filed January 23, 1891. Serial No. 378,763. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. EASTWICK, Jr., of New York city, in the county and State of New York, have invented a new and useful Improvement in Car-Couplers, of which the following is a full, clear, and exact description.

My invention relates to car-couplers of the vertical-plane type, and has for its object to improve the construction set forth in the Letters Patent granted to myself December 10, 1889, and numbered 417,006, and November 11, 1890, numbered 440,586, and provide a means whereby an ample buffing-surface will be obtained and the draw-head and shank rendered capable of being continuously cored; and a further object of the invention is to so arrange the line of draft and the connections of the tail-bolt with the draft-rigging of the car that when the knuckles of opposed draw-bars are coupled they will be maintained in close engagement and be subjected to a minimum of friction.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improved coupler, a portion thereof being broken away. Fig. 2 is a partial horizontal section through the shank of the coupler; and Fig. 3 is a plan view of the coupler, illustrating a modification in the tail bolt or strap.

The coupler consists, primarily, of a draw-head A, having an attached shank B and a knuckle C. The draw-head is constructed as is usual in couplers of this class, being made essentially hollow, whereby an open chamber is obtained adapted to receive the knuckle and provided with two arms 10 and 11. The knuckle is pivoted in the arm 10 of the draw-head by a pin 12, and is provided with a wing 13, capable of extending over the center line of the head and engaging with a locking-pin 14, preferably removable, and buffing lugs or

plates 15. The arm 11 is closed and forms a horn, which acts as a guiding-plane for directing the opposed knuckles of an opposite coupler to bring the two knuckles into engagement and effect an automatic connection. The pivot 12 is preferably located at one side of the center line of the draw-head, the locking-pin at the opposite side of the line, and the buffing lugs or plates 15 are located at or near the junction of the head with the shank.

In the operation of coupling the wing of the knuckle bears at its inner side upon the locking-pin and at its outer side on the buffing-lugs, the pulling strain being received by the former and the buffing strain by the latter.

The buffing plates or lugs are preferably cast integral with opposite sides of the shank, as shown in Fig. 1, and a central opening 16 intervenes between them, connecting the interior of the shank with the draw-head chamber, thus permitting the shank and draw-head to be cored together in the process of casting. The buffing-lugs may be made from the same metal as the draw-head, or of a harder metal, as may be found advisable in practice.

The coupling-strap or tail-bolt 17, adapted to be attached to the draft-rigging of the car, may be secured either to the interior or to the exterior of the draw-head shank, and may be at one side of or on the center line of the draw-head, the connections of the tail bolt or strap with the draft-rigging of the car being on the side of the line of draft opposite that at which the knuckle is pivoted.

The object of having the tail-bolt attached to the draft-rigging at one side of the line of draft, and the pivotal point of the knuckle on the opposite side of the line, is to cause a movement to be produced whereby the draft strain at the locking-faces of the knuckle (which strain in the old construction is applied along the center line of the coupler) will cause the entire draw-head to revolve in the direction indicated by the arrows, thus forcing two coupled draw-heads to closely hug, which results in the guard-arms of the draw-heads being carried out of engagement with the knuckles, and the latter are relieved from undue strain and wear.

In couplers as at present manufactured the

tendency is for the knuckle of one coupler to bear against the guard-arm of the opposite one, causing thereby a constant wear at these points and ultimately allowing the couplers to become disengaged.

If for any reason it is deemed advisable to secure the tail-bolt to the center line of the coupler-shank, or even upon that side of the line upon which the knuckle is pivoted, the end of the bolt or strap adapted for attachment to the draft-rigging of the car is curved or otherwise manipulated in such manner that said end will be carried over the line of draft to the side thereof opposite that at which the knuckle is pivoted, as shown in Fig. 3.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a car-coupler of the type described, the combination, with a draw-head and a knuckle pivoted on one side of the center line of the draw-head, of a tail bolt or strap attached to the shank at the opposite side of the center line of the draw-head, the said tail bolt or strap being also adapted for attachment to the draft-rigging of a car, substantially as shown and described.

2. In a car-coupler of the type described, the combination, with a draw-head and its shank, of a knuckle pivoted on one side of the line

of draft of the draw-head, and a tail bolt or strap attached to the shank and to the draft-rigging at the opposite side of the line of draft of said draw-head, as and for the purpose specified.

3. In a car-coupler of the type described, the combination, with a draw-head and spaced buffing-lugs cast in the shank, of a locking-pin located in the draw-head, a knuckle pivoted in the said draw-head, and a wing integral with the knuckle contacting at its inner face with the locking-pin and upon its outer face with the buffing-lugs, substantially as and for the purpose specified.

4. In a car-coupler of the type described, the combination, with the draw-head and spaced buffing-lugs cast in the shank of the draw-head at opposite sides thereof, the said lugs being located at or near the union of the draw-head with its shank, of a locking-pin located in the draw-head at one side of a center line, a knuckle pivoted in the said draw-head at the opposite side of said center line, and a wing integral with the knuckle contacting at its inner face with the locking-pin and upon its outer face with the buffing-lugs, substantially as and for the purpose specified.

EDW. P. EASTWICK, JR.

Witnesses:

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