

(No Model.)

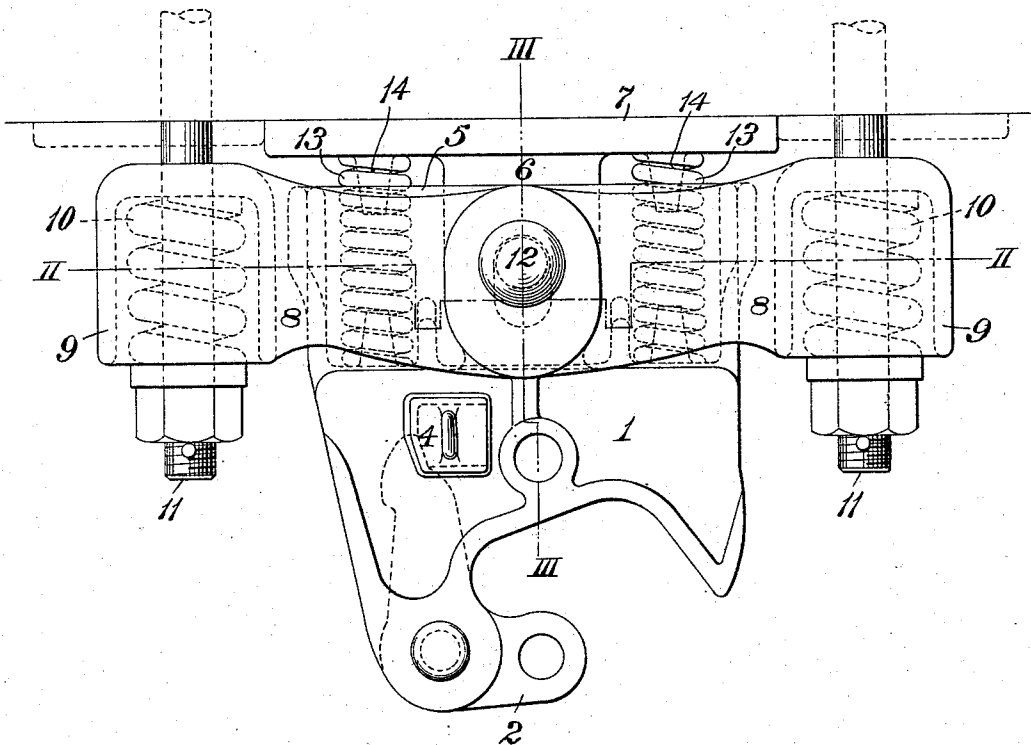
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F. J. CURTIS.
CAR COUPLING.

No. 580,596.

Patented Apr. 13, 1897.

FIG. 1.



WITNESSES:

Chas. F. Miller.
J. E. Gardner

INVENTOR,

Frank J. Curtis
by Darwin S. Wolcott
Att'y.

Att'y.

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

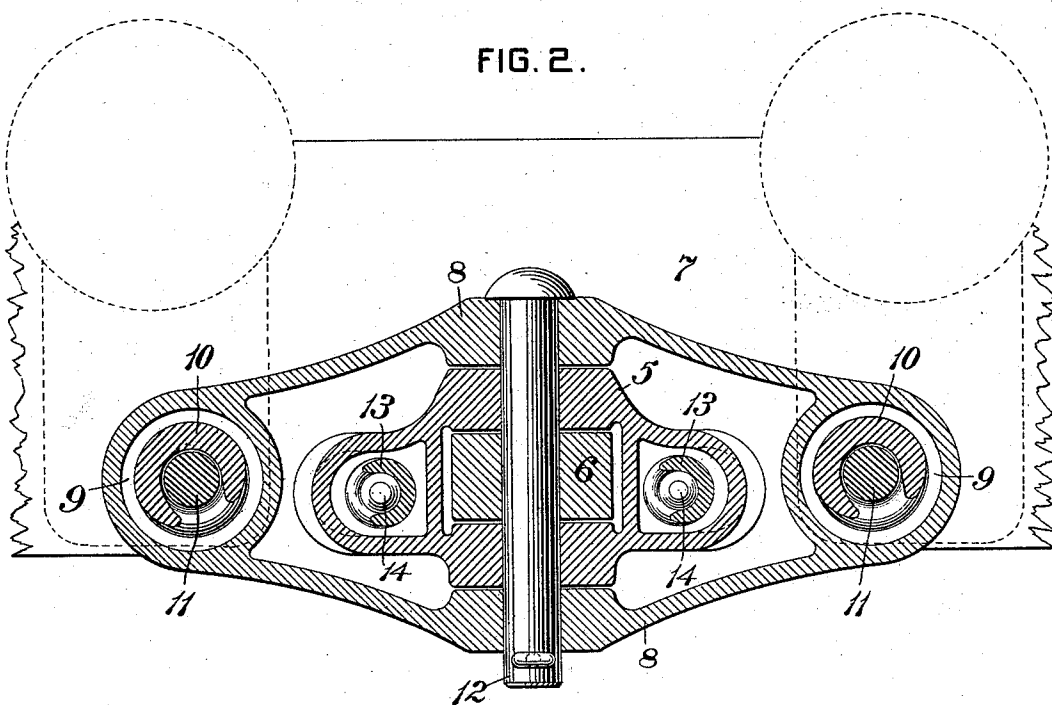
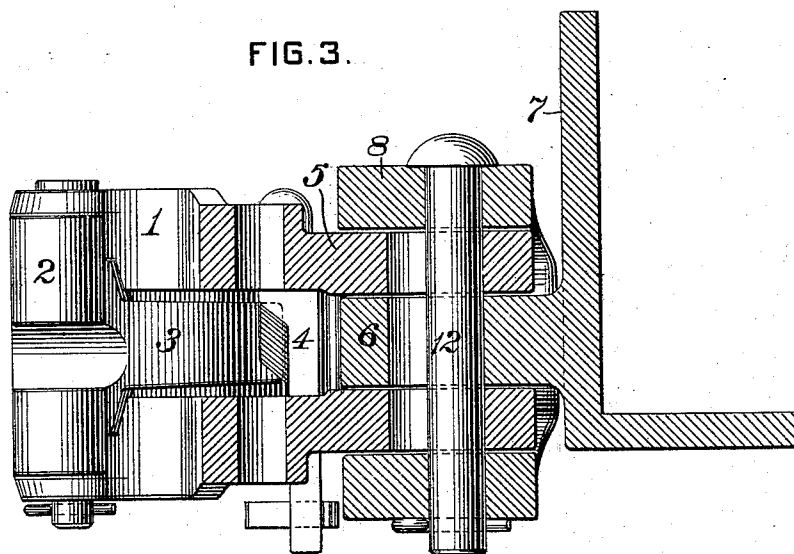


FIG. 3.



WITNESSES:

Chas. F. Miller
J. E. Galtner

INVENTOR.

Frank J. Curtis
by Daniel S. Wolcott

Att'y.

UNITED STATES PATENT OFFICE.

FRANK J. CURTIS, OF BEN AVON, PENNSYLVANIA, ASSIGNOR TO THE
McCONWAY & TORLEY COMPANY, OF PITTSBURG, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 580,596, dated April 13, 1897.

Application filed November 7, 1896. Serial No. 611,353. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. CURTIS, a citizen of the United States, residing at Ben Avon, in the county of Allegheny and State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Couplers, of which improvement the following is a specification.

The invention described herein relates to certain improvements in couplers for tenders for locomotives, and has for its object a construction whereby the coupler may be yieldingly attached to draft-bars on the tender and may also present a yielding resistance or buffing action when the cars and tender are forced toward each other.

In general terms the invention consists in the construction and combination substantially as hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view illustrating my invention. Fig. 2 is a transverse section, the plane of section being indicated by the line 2 2, Fig. 1; and Fig. 3 is a vertical longitudinal section, the plane of section being indicated by the line 3 3, Fig. 1.

In the practice of my invention the coupler-head 1, with its swinging hook 2, tail-piece 3, and locking-pin 4, is constructed in the usual or any suitable manner. The coupler-head is provided with a barrel or draft part 5, which is made hollow and adapted to fit over the tongue or lug 6, formed on or secured to the angle or flange-plate 7. This plate 7 is secured at the end sill of the tender-frame by bolts in the usual or any suitable manner. A yoke or frame 8, provided with an opening for the reception of the barrel or draft portion 5 of the coupler-head, is arranged around the draft-barrel, as shown in Figs. 2 and 3, and is provided at its ends with sockets 9 for the reception of the draft-springs 10. Through these draft-springs are passed the draft-bolts 11, which extend through the end sill of the tender-frame and are connected to such frame or suitable draft mechanism under the tender in the usual or any desired manner.

As shown in Fig. 3, the yoke and draft-bar-

rel of the coupler-head and the tongue or lug 6 are all connected together by a pin 12. The openings for the bolt in the draft-barrel and tongue or lug are slotted, so as to permit of movements of the coupler independent of the flange. The normal tension of the springs 10 will tend to hold the pin 12 to the rear end of the slot in the tongue or lug 6, and the coupler is forced outwardly, so that the pin 12 will be at the rear end of the slot in the draft-barrel, by springs 13, bearing at one end against the flange-plate 7 and at the opposite ends against the coupler. It is preferred to hold said springs from accidental displacement by studs 14, formed on the flange-plate and coupler-head. In addition to these studs the outer ends of the springs are held in position by sockets or openings in the draft-barrel, as shown in Figs. 1 and 2.

The normal position of the parts of my improved coupling mechanism is shown in Fig. 3. If the coupler-head be subjected to a pull while the parts are in the position shown in Fig. 3, the coupler-head and yoke 8 will move outwardly, compressing the springs 10 until the latter are closed or the pin reaches the outer end of the slot in the tongue or lug 6. If, on the contrary, the coupler should be forced toward the tender, it will slide over the tongue or lug, compressing the springs 13 until the rear end of the draft-barrel bears against the flange-plate 7. It will be observed that the slots in the draft-barrel of the coupler-head are a little longer than the distance between the rear end of the draft-barrel of the flange-plate, so that the pin 12 will not be subjected to any strain or blow when the coupler-head is subjected to a buffing action.

I claim herein as my invention—

1. The combination of a coupler, a yoke having a connection intermediate of its ends to the coupler, yielding draft mechanism connecting the ends of the yoke to the frame of the tender, and buffing-springs interposed between the coupler and the frame of the tender, substantially as set forth.

2. The combination of a tender-coupler, a yoke having a connection intermediate of its ends to the coupler, and yielding draft mechanism connecting the ends of the yoke to the tender-frame, substantially as set forth.

3. The combination of a tender-coupler having a slotted tongue or lug adapted to be secured to the tender-frame, a yoke, a pin passing through yoke, draft-barrel and tongue, and yielding draft mechanism connecting the yoke to the tender-frame, substantially as set forth.

4. The combination of a tongue or lug adapted to be secured to the tender-frame, a tender-coupler movably mounted on the tongue or lug, a yoke so connected to the coupler as to

permit the movement of the latter independent of the yoke, springs arranged between the coupler and tender and yielding draft mechanism connecting the yoke to the tender-frame, substantially as set forth.

In testimony whereof I have hereunto set my hand.

FRANK J. CURTIS.

Witnesses:

DARWIN S. WOLCOTT,
F. E. GAITHER.