H. F. POPE.

DRAFT GEAR.

APPLICATION FILED NOV. 7, 1908.

947,757.

Patented Jan. 25, 1910.

2 SHEETS—SHEET 1.

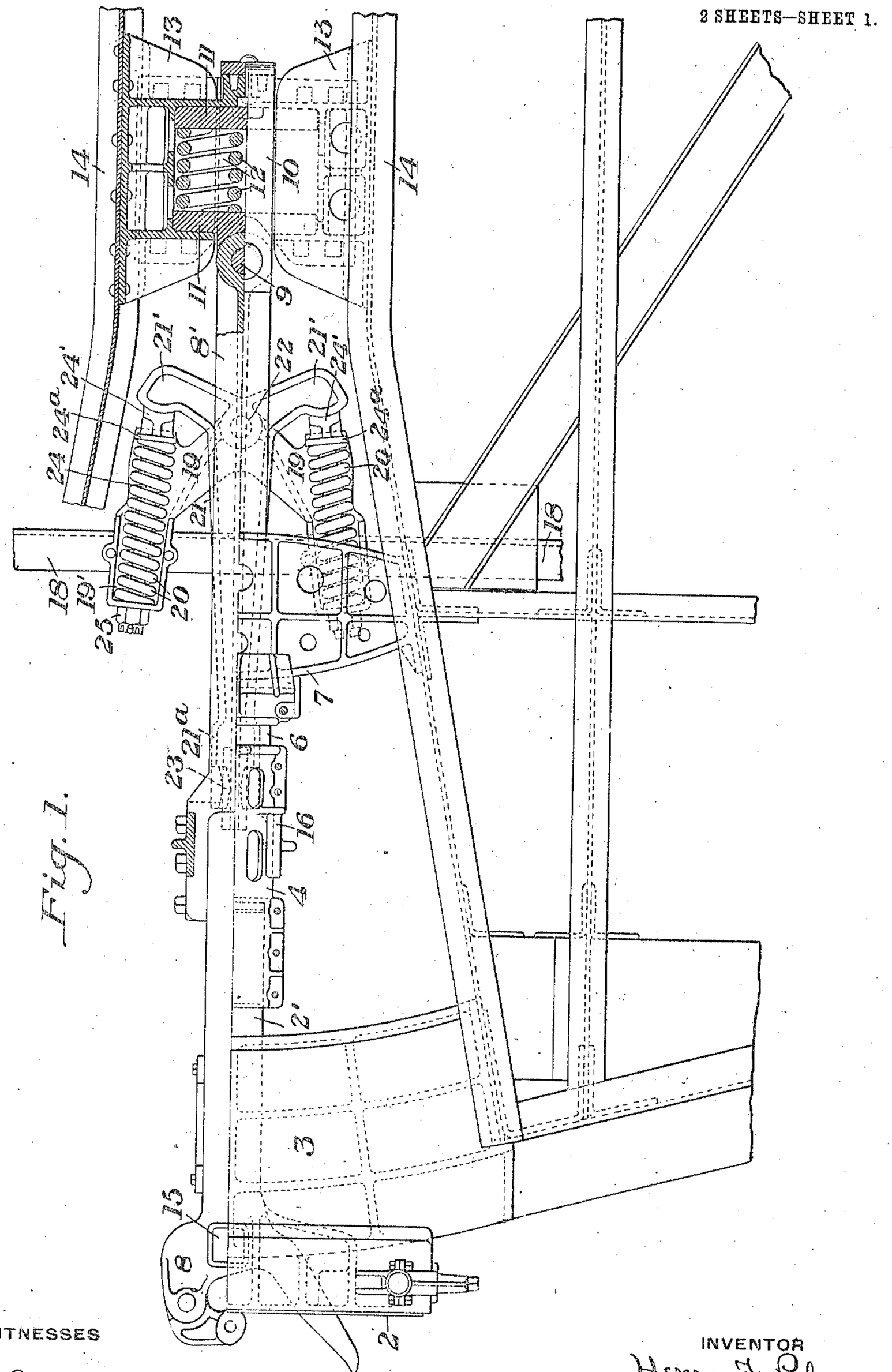

Fig. 1.

WITNESSES

R. A. Balderson

G. L. Coulter

INVENTOR

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his Attys.

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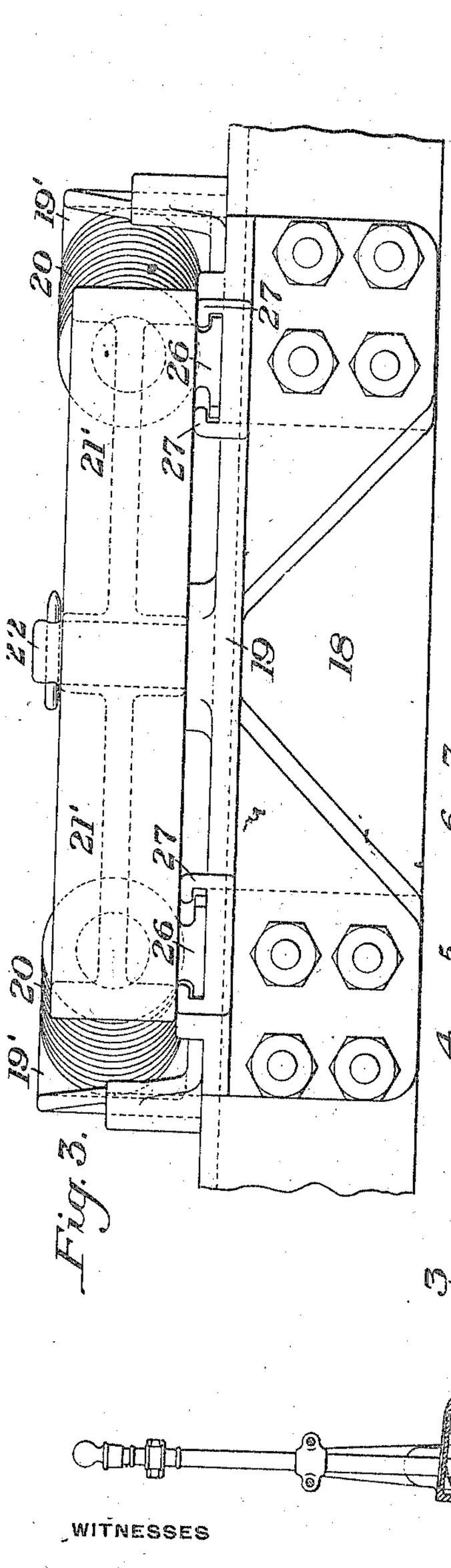

Fig. 3.

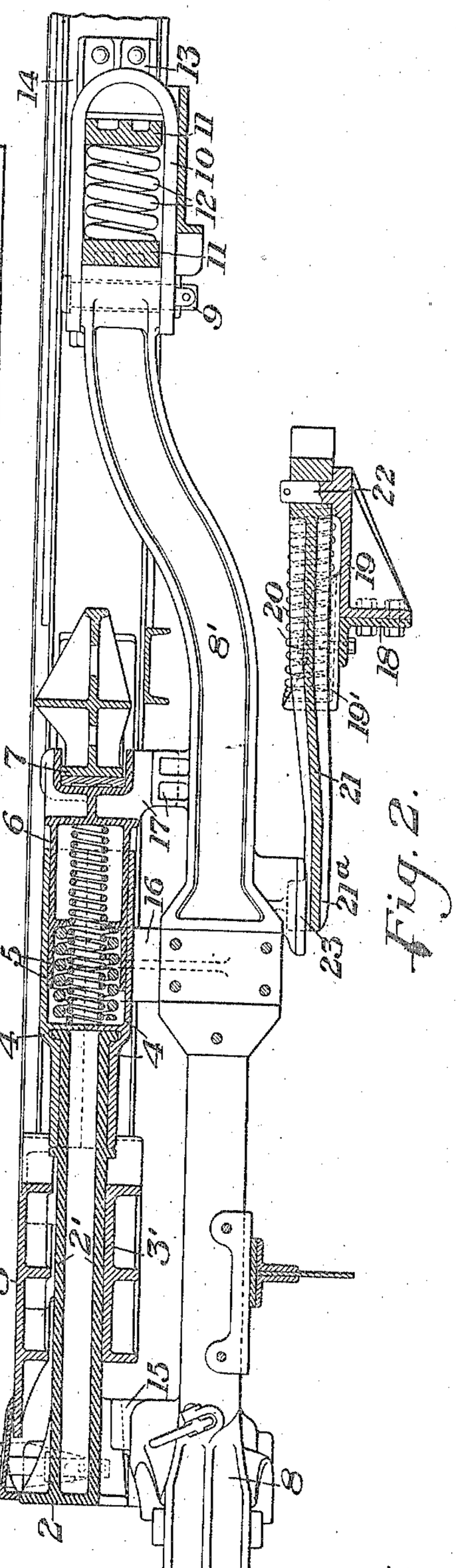

Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY F. POPE, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

DRAFT-GEAR.

947,757. Specification of Letters Patent. Patented Jan. 25, 1910.

Application filed November 7, 1908. Serial No. 461,488.

To all whom it may concern:

Be it known that I, HENRY F. POPE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Draft-Gear, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view partly in horizontal section, showing my invention; Fig. 2 is a side elevation partly in longitudinal section; and Fig. 3 is a rear elevation.

As shown in the drawing, the buffer has a transverse member 2 and a rigid middle shank 2′, which extends rearwardly from the transverse member and at right angles thereto and which is made of an undivided piece and can therefore be of sufficient dimensions to give the strength and stiffness required to resist the longitudinal stress to which it is put when in use. The platform end sill is made of two parallel parts 3, 3′, separated vertically from one another to a sufficient extent to permit passage between them of the buffer shank 2′, the lower member 3′ serving to support and guide the buffer shank in its longitudinal movements. At the rear end of the buffer shank are clamped the two parts of a buffer spring case 4, 4, which contains the buffer spring 5, a second spring case member 6 being fitted telescopically within the member 4 and having a sliding bearing on a curved segment 7. The novel feature of this part of my invention resides in the use of a buffer shank in a continuous straight piece which extends in a direct line from a point midway of the height of the transverse member of the buffer to the spring; and in supporting the buffer shank by the divided end sill. This construction enables me to get great strength and rigidity, and dispenses with offsetting or forking the buffer shank.

8 is the car coupler having a rearward extension or shank 8′, which at its rear end is preferably extended upwardly into line or nearly into line with the buffer shank and is connected pivotally by a pin 9 to the yoke 10 of the draft rigging which is provided with followers 11 and draft spring 12, mounted between draft irons 13, which are affixed to the center sills 14 of the car. The coupler is engaged with the buffer by engagements 15, 16 and 17, which permit rearward motion of the buffer independently of the coupler, the construction being such that when the coupler and its shank swing radially on the axis 9 in passing over a curved portion of the track, the buffer being engaged therewith is carried with the coupler. It is necessary in such construction to have a guiding connection between the draft gear and the truck, and my invention relates to a novel construction of this portion of the device.

In the drawing, 18 is the front part of the truck frame having a bracket 19 attached thereto. This bracket has forwardly extending pockets 19′. They are designed to retain the centering springs 20.

21 is an arm which is pivoted to the bracket 19 at a pivotal center 22, and is slidingly connected to the draft gear at 23. This arm has lateral wings 21′ adapted respectively to engage the heads 24′ of bolts 24. These bolts 24 pass through the springs 20 and also through holes in the bracket 19 and are retained by nuts 25. At the head of each bolt there is a projecting boss 26, whose lateral extensions fit and slide beneath guiding lugs 27 on the bracket 19. When the coupler is forced laterally out of its normal position at the centers of the track, the forward end 21ª of the arm 21 is also carried laterally and one of its wings 21′ is moved against the corresponding head 24′ of the bolt, pushing it forwardly against the spring and compressing the same by means of the shoulders 24ª on the bolt, thus putting the parts under tension which, when the force displacing the coupler is removed, restores it substantially to the center of the track.

Modifications may be made in the construction and arrangement of the parts, since

What I claim is:

A radial draft gear, a laterally movable buffer engaged therewith and having at its front end a transverse buffing member and a rigid shank extending rearwardly midway of the height of the transverse member and in line with the buffer-spring, and a buffer-spring which backs the shank.

In testimony whereof, I have hereunto set my hand.

HENRY F. POPE.

Witnesses:
HARRY E. ORR,
HARRY T. KRAKAU.