

H. T. KRAKAU.

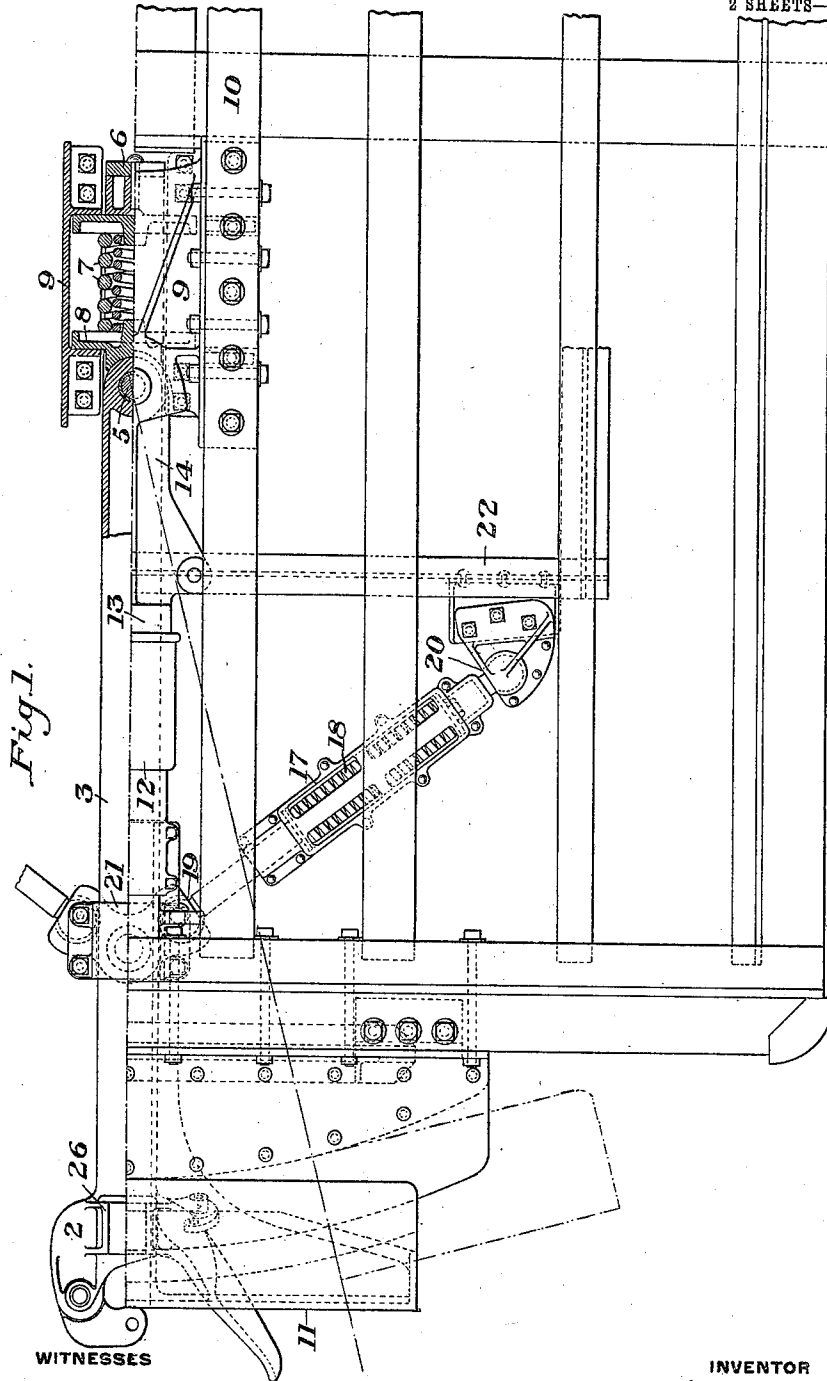
DRAFT AND BUFFING MECHANISM.

APPLICATION FILED JUNE 17, 1907. RENEWED NOV. 24, 1909.

963,158.

Patented July 5, 1910.

2 SHEETS—SHEET 1.



WITNESSES

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W. W. Swartz

INVENTOR

H. T. Krakau
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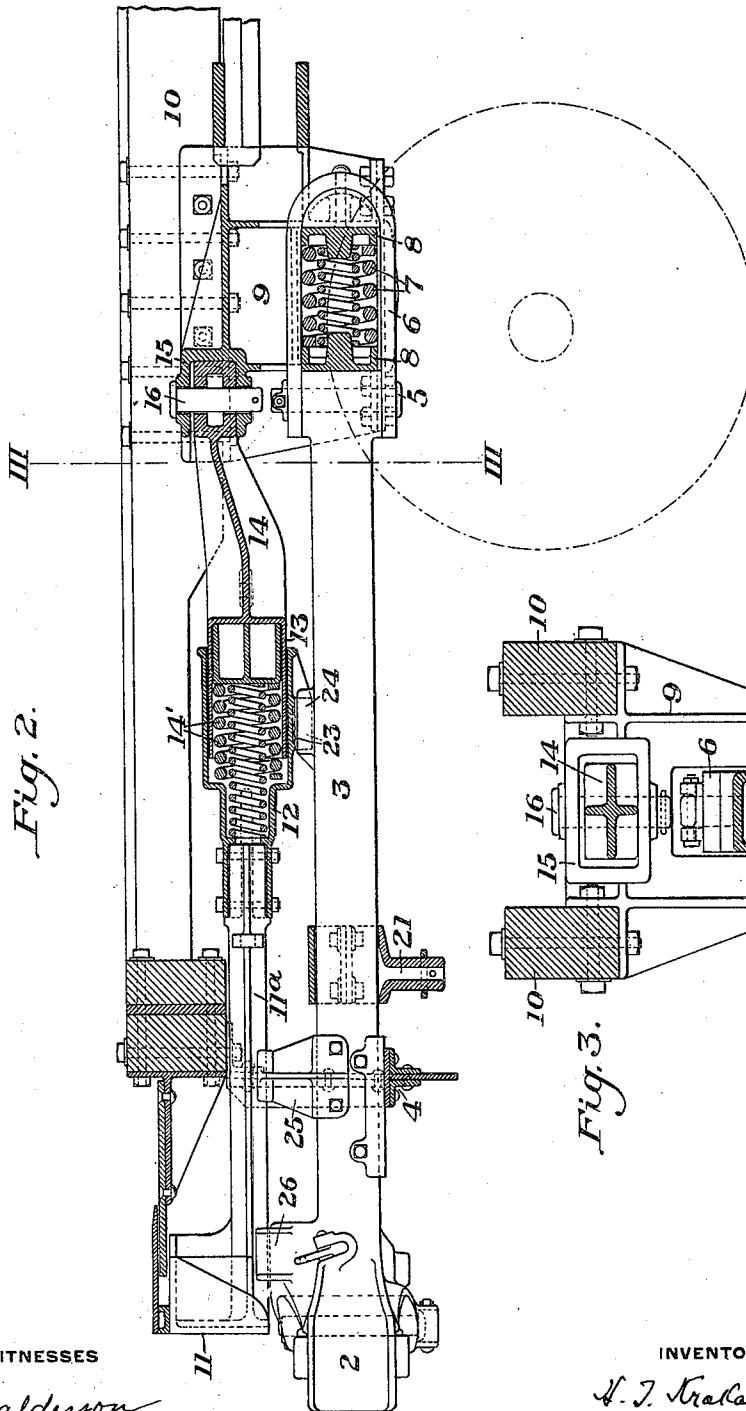


Fig. 2.

Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

HARRY T. KRAKAU, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

DRAFT AND BUFFING MECHANISM.

963,158.

Specification of Letters Patent.

Patented July 5, 1910.

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To all whom it may concern:

Be it known that I, HARRY T. KRAKAU, of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Improved Draft and Buffing Mechanism, 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 partial plan view partly in horizontal section showing my improvement; Fig. 2 is a vertical longitudinal section partly in side elevation; and Fig. 3 is a vertical cross section on the line III—III of Fig. 2.

In the drawing 2 represents the car coupler having a rearwardly extending shank 3 which may be integral as shown in the drawing. It is supported by a suitable carry iron 4, and at its rear end is pivoted on a pin 5 to a yoke 6 which contains a draft spring or springs 7 and followers 8, 8. The followers 8, 8 are preferably held in a frame or casting 9 supported from the center sills 10, and extending transversely from one center sill to the other as shown in Figs. 2 and 3, and this frame also has slots or openings to confine and guide the yoke 6. During the travel of the car around curves, the coupler shank will turn on the axis of the pin 5, but will be free to move longitudinally under buffing and draft against the springs 7 which are held from lateral movement by the frame or casting 9, but are free to move longitudinally therein with the car coupler.

11 is a buffer having a rearwardly extending shank 11^a fixed to or made integral with the spring casing 12, which is fitted telescopically on a rear spring casing 13, buffer springs 14' being interposed between these casings. The rear spring casing 13 has a rearwardly extending shank 14 which fits within a socket 15 of the frame or casting 9 and is pivoted therein on a pin 16, the axis of which is in a line with the axis of the pin 5.

The draft gear of coupler shank is connected with the car truck by telescopically arranged connections 17 having springs 18, these connections being pivotally connected at 19 and 20 to a sliding socket 21 on the coupler shank and to the truck frame 22, respectively. The coupler shank is engaged with the buffer so as to permit longitudinal

motion of these parts independently of one another, preferably by a pin 23 on the spring casing 12 of the buffer, which fits within a socket 24 on the coupler shank. The socket 24 is open at the rear or otherwise adapted to permit longitudinal relative motion of the pin and socket. There is also preferably a forward connection constituted by plates or projections 25 which extend upwardly from the coupler shank and fit on opposite sides of the shank 11^a of the buffer, so that the buffer will move with the coupler shank in its radial motion. There also may be an upwardly projecting horn or horns 26 on the coupler head, which likewise fit the sides of the buffer shank.

In operating the device, when the car is passing around a curve, the coupler shank 3 will be guided by the truck connections 17 so as to swing laterally and to remain substantially at the center of the truck, and in so swinging the draft gear will turn on the axis of the pin 5. By reason of the connection of the draft gear with the buffer, which may be effected as above described, the buffer will also swing laterally on the axis of the pin 16, which is substantially concentric with the axis of the pin 5, so that the parts will remain constantly in proper relation.

The construction of the device and the mode of connection of the draft-gear to the radially swinging buffer may be modified in various ways, since the novel part of my invention relates purely to the radially swinging buffer and the radially swinging draft gear mounted on nearly concentric axes and engaged one with another. Of course, the axes on which the buffer and draft gear turn are not always exactly concentric, for the relative position of these axes varies with the longitudinal movement of the draft gear under buffing and draft, the axis of the draft gear being a longitudinally movable axis, while the axis of the buffer in the form shown in the drawing is a fixed axis. The free longitudinal movement of these parts relative to one another is permitted by the sliding connection of the part 21 on the coupler shank, and by the sliding connection afforded by the projections 24, 25 and 26 in their engagement with the buffer.

I claim:—

1. A radially swinging draft-member

mounted for longitudinal motion under buffering and draft and for lateral swinging when the car passes around curves, in combination with a laterally swinging buffer, said buffer and draft member being independently pivoted on axes which are approximately concentric; substantially as described.

2. A radially swinging draft-member mounted for longitudinal motion under buffering and draft and for lateral swinging when the car passes around curves, in combination with a laterally swinging buffer, said buffer and draft-member being pivotally mounted on approximately concentric and independent axes, and being supported at their pivotal ends by a single frame depending from the car structure; substantially as described.

3. A radially swinging draft member pivotally connected to a draft rigging, a radially swinging buffer and a frame fixed to the car-sills extending transversely from one sill to the other and carrying the draft

rigging and the pivot of the swinging buffer, substantially as described.

4. A radially swinging draft member pivotally connected to a draft rigging, a radially swinging buffer and a frame fixed to the car-sills extending transversely from one sill to the other and depending below the car sills and carrying the draft rigging and the pivot of the swinging buffer; substantially as described.

5. A frame for radial draft gears fixed to the car structure and having a body portion formed with a pivotal bearing for a swinging buffer and a recess below said pivotal bearing for the reception of a draft rigging.

In testimony whereof, I have hereunto set my hand.

HARRY T. KRAKAU.

Witnesses:

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A. E. WALLACE.