G. Q. LEWIS.

DRAFT RIGGING.

APPLICATION FILED JUNE 12, 1912.

1,048,710.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 1.

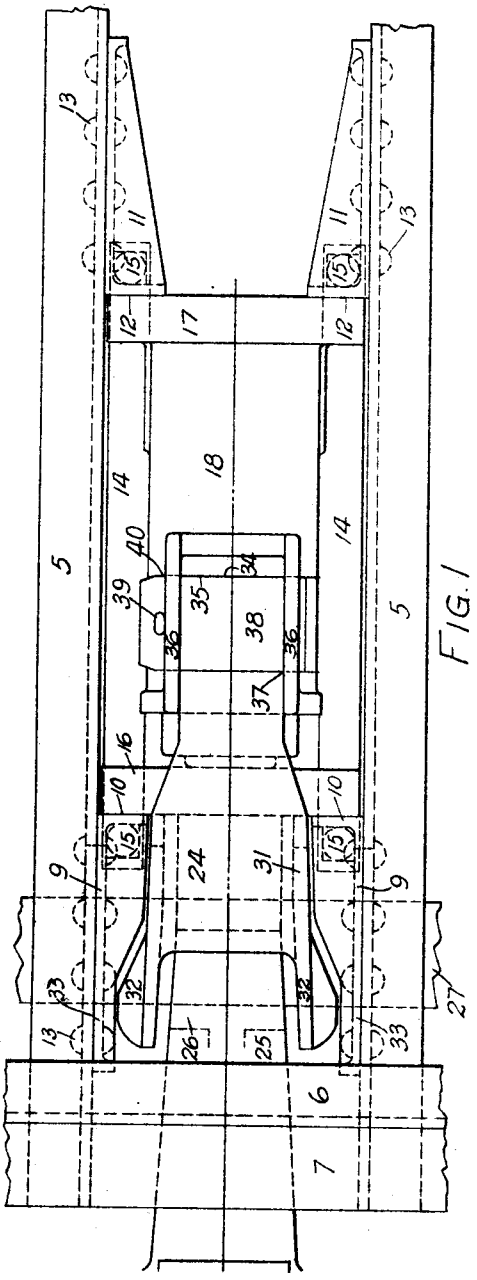

FIG. 1.

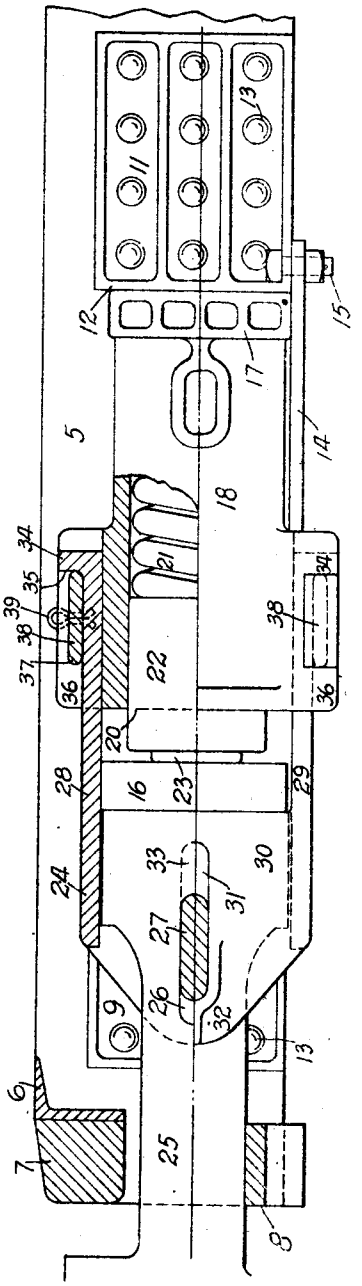

FIG. 2.

WITNESSES

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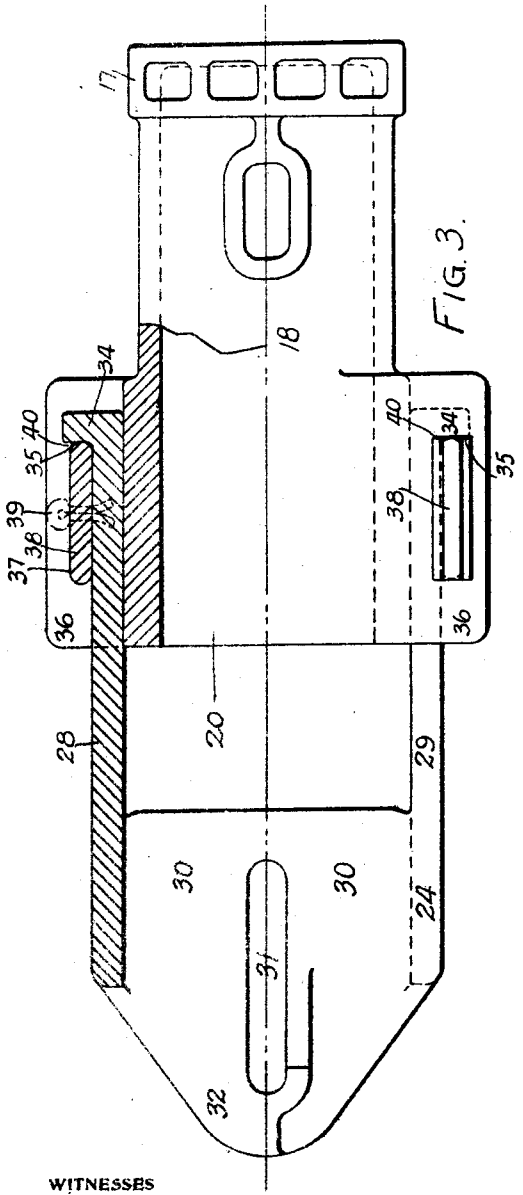

FIG. 3.

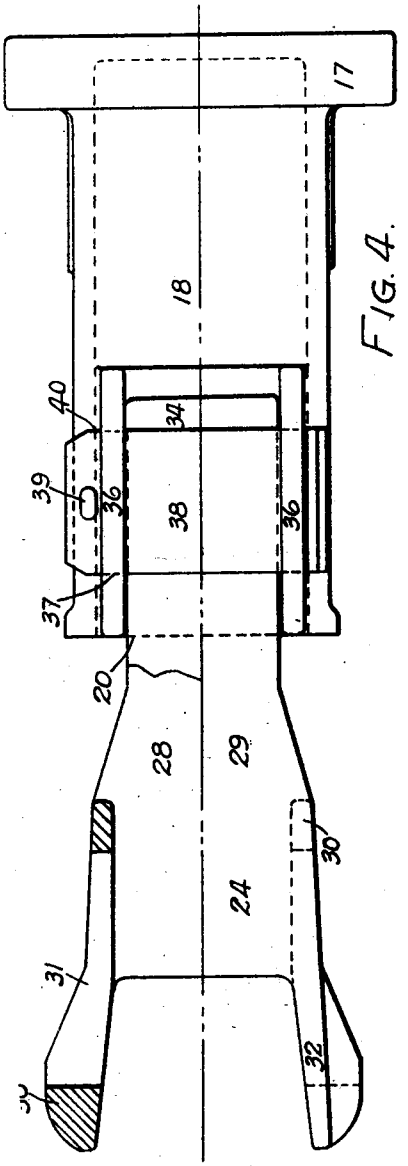

FIG. 4.

WITNESSES

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DRAFT-RIGGING.

1,048,710. Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed June 12, 1912. Serial No. 703,193.

To all whom it may concern:

Be it known that I, GOODRICH Q. LEWIS, a citizen of the United States, residing at Wheaton, in the county of Dupage and State of Illinois, have invented a certain new and useful Improvement in Draft-Rigging, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in draft rigging for railway cars.

The object of my invention is to provide a safe and durable draft rigging, and one in which there are efficient means of connecting the draw bar to the shock absorbing member.

In the accompanying drawings forming a part of this specification Figure 1 is a plan view of a draft rigging embodying my invention. Fig. 2 is a side elevation partly broken away in vertical longitudinal section. Fig. 3 is an enlarged detail showing the shell and the means of connecting it to the draw bar in side elevation partly in vertical longitudinal section. Fig. 4 is an enlarged detail showing in plan view the shell and the means of connecting it to the draw bar, said means being shown partly in horizontal section.

In the drawings 5, 5 represent center sills of a railway car, or parts of the car frame to which the draft rigging is attached; 6 the end sill; 7 the buffer block; 8 the draw bar carry iron; 9, 9 the front stop members provided with the stop shoulders 10, 10; 11, 11 the rear stop members provided with the stop shoulders 12, 12. The stop members are suitably secured to the center sills by the rivets 13, 13. 14, 14 represent horizontal longitudinally disposed guides or plates removably secured by the bolts 15, 15 to the stop members, said guides serving to support the draft rigging between the center sills.

The front follower 16 and the rear follower 17, which is secured to the shell 18 and preferably integral therewith, slidingly engage the upper surface of the guides or plates 14, 14. The shell 18 is hollow in form, preferably cylindrical in shape, is closed at the rear end 19 by the preferably rectangular plate or follower 17, and open at its forward end 20. Within the shell 18 are the compression resisting parts which with the shell form the shock absorbing member of the draft rigging. The compression resisting parts may be of any suitable form, preferably those shown in Fig. 2 of the drawings consisting of the spring 21, the friction shoes 22 and the wedge 23.

24 is the means of connecting the shell 18 with the draw bar 25, the draw bar 25 being of the ordinary type, and provided at its rear end with the transverse slot 26 to receive the preferably flat coupler key 27, which serves to connect the draw bar to the member 24. The member 24 consists of the horizontally disposed arms 28 and 29 joined together at their outer forward edges by the vertical lateral plates 30, 30 forming a box like opening within which the rear end of the draw bar 25 is received. The plates 30, 30 are each provided with slots 31, 31 through which the coupler key 27 passes. The slots 31, 31 are suitably horizontally extended to permit the key 27 to move rearwardly therein on buffing movement of the draft rigging.

In preferable construction the lateral plates 30, 30 are forwardly extended, forming the wings 32, 32, the same being outwardly flared, as illustrated in Fig. 4 of the drawings, to permit suitable lateral movement of the draw bar.

In preferable construction I provide slots 33, 33 in the forward stop members 9, 9, and the adjacent portions of the center sills 5, 5 suitably located and horizontally extended to permit the passage of a coupler key 27 therethrough and its reciprocating movement in the operation of the draft gear.

The arms 28, 29 are rearwardly extended, and are of suitable length to permit their attachment to the shell 18, as hereinafter described, and to allow a space between the forward end of the shell and the rear end of the draw bar to permit the transverse passage between them of the front follower 16. The arms 28, 29 are preferably flat or rectangular in cross section, and are provided at their rear ends with the outwardly turned lugs 34, 34 forming the shoulders 35, 35. The upper and lower exterior surfaces of the shell 18 are each provided with a pair of exterior horizontally disposed projections or lugs 36, 36, the lugs of each pair being suitably spaced

apart to permit the placing of the arms 28, 29 between each pair of lugs respectively. The lugs 36, 36 are each provided with the transverse slots 37, 37. The preferably flat keys 38, 38 are provided one for each pair of lugs 36, 36, the keys being placed through the slots 37, 37, and provided with cotter keys 39, 39 in their outer ends to secure them in position. The shoulders 35, 35 respectively engage the rear edges of the keys 40, 40.

Upon rearward movement of the draw bar the member 24 may remain stationary during the compression of the shock absorbing member while the key 27 travels rearwardly in the extended slot 31, or if preferred a rigid attachment may be made between the draw bar and the forward end of the connecting member 24 so that upon rearward movement of the draw bar and compressing movement of the parts within the shell 18 the arms 28 and 29 slide rearwardly in the opening between the lugs 36, 36, and on forward movement of the draw bar the shoulders 35 of the lugs 34 engage the rear edge 40 of the key 38. In both of said movements the stop members and followers perform their usual functions.

I claim:—

1. In a device of the character described, a shell, a draw bar and a member connecting the draw bar and shell, said member having rearwardly extended arms, each provided with outwardly turned lugs, and the shell having external longitudinal lugs adapted to secure the said arms between them.

2. In a device of the character described, a shell, a draw bar and a member connecting the draw bar and shell, said member having rearwardly extended arms, each provided with outwardly turned lugs, the shell being provided with external longitudinal lugs arranged in pairs to receive one of said arms between each pair, and each of said pairs being transversely slotted to receive a key.

3. In a railway draft rigging, the combination with the center sills, stop members, draw bar, followers, shell and compression resisting parts within the shell, of a member connecting the draw bar to the shell, said member being provided with rearwardly extended arms, and the shell having external lugs arranged in pairs to receive one of said arms between the lugs comprising each pair.

4. In a device of the character described, a draw bar, a shell, a plurality of keys and a member connecting the shell and draw bar, the said connecting member being provided with a plurality of arms, and the shell being provided with a plurality of lugs arranged in pairs on either side of each of said rearwardly extended arms, each pair of lugs being transversely slotted to receive one of said keys.

5. In a device of the character described, a draw bar, a shell, a plurality of keys and a member connecting the draw bar and shell, the said member being provided with a plurality of rearwardly extended arms, each having an outwardly turned lug, the shell being provided with a plurality of projections arranged in pairs on either side of each of said arms, each pair of said lugs being transversely slotted to receive one of said keys, and each of said keys adapted to engage the lug of the adjacent arm.

6. In a device of the character described, a shell, a draw bar and a member connecting the draw bar and shell, the said member being provided with rearwardly extended arms, and the shell being provided with pairs of lugs suitably arranged to loosely receive one of said arms between each pair.

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Witnesses:
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