R. FIEGEL.

Car Coupling.

No. 47,098. Patented Apr. 4, 1865.

Fig. 1.

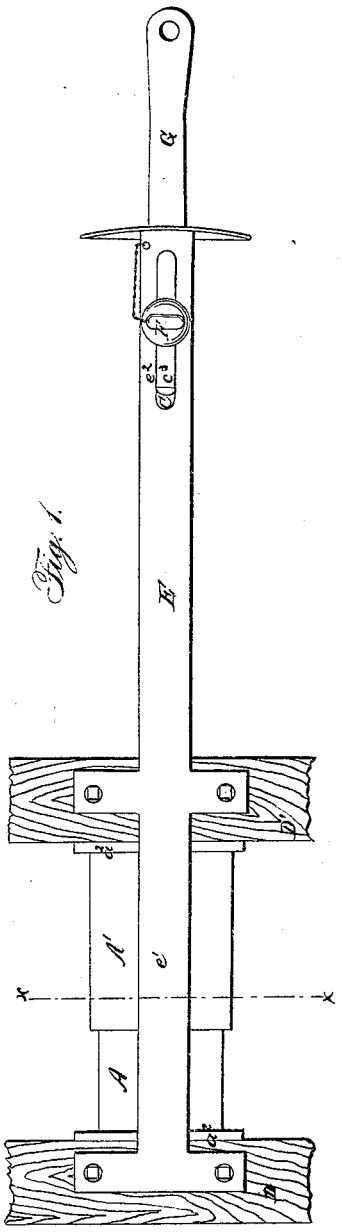


Fig. 2.

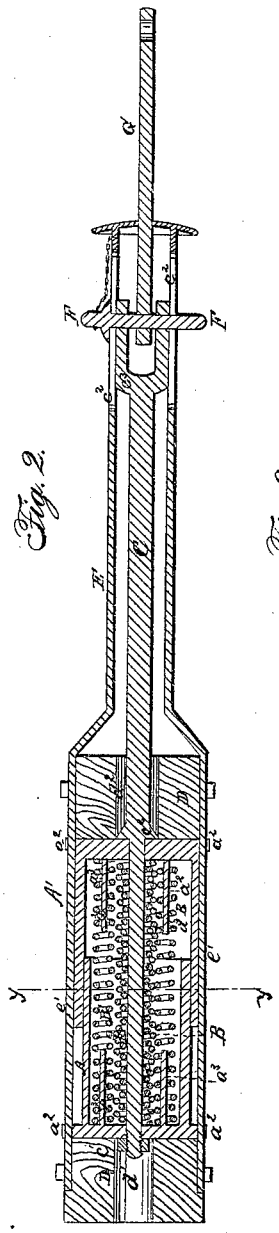
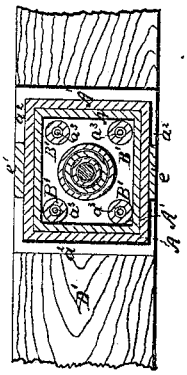


Fig. 3.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

REMY FIEGEL, OF MONTGOMERY COUNTY, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD DRAFT-BARS.

Specification forming part of Letters Patent No. 47,998, dated April 4, 1865.

To all whom it may concern:

Be it known that I, REMY FIEGEL, of the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in the Spring Draft-Bar of Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view; Fig. 2, a vertical longitudinal section; and Fig. 3, a transverse section on the lines *x* and *y* of Figs. 1 and 2, representing the said improvement applied.

Like letters of reference indicate the same parts when in the several figures.

The object of my invention is to afford a durable and effective spring draft-bar for each end of a railroad car which will act elastically as such and independently of each other either under tension or compression in combination with a buffer rigidly fixed to the car.

It consists, substantially, as hereinafter described and specified, of several series of spiral springs confined within two cast-iron boxes, constructed to slide the one within the other during the action of the draft-rod, the latter passing through and keeping the boxes together with the springs between, and the whole being supported and secured firmly between two cross-beams of the platform of the car, so as to operate in combination with a buffer rigidly fixed to the said cross-beams or their equivalents, and with the usual bolt and shackle.

In the drawings, A and A′ are the two cast-iron boxes; B B′ B′ B′ B′, the several series of spiral springs, C, the draft-rod; D D′, the cross-beams of the platform, the latter not being shown in the drawings; E, the buffer; F the bolt, and G the shackle.

The boxes A A′ have each a flange, a^2, on the end, which abuts against its respective cross-beam D of the platform, and the upper and lower edges of these flanges are notched out so as to receive loosely the arms e' e' of the buffer E, and serve, in connection with rod C, to keep the said boxes in alignment during their longitudinally-sliding motions between the cross beams D D′, the said arms being bolted rigidly fast to the latter and so that the buffer-head shall project beyond the platform of the car. On the inner side of each of the abutting ends of the boxes A A′ four studs or posts, a^3, are fixed perpendicularly, for the purpose of receiving and keeping in place over them the four corner series of spiral springs B′, the rod C serving the same purpose for the central series, B. (See Figs. 2 and 3.)

The spiral springs B may be made of round iron five-sixteenths of an inch in diameter, and should be coiled of such diameters that two, three, or more of them may be applied over each stud a^3, and in like manner over the rod C. This is done by screwing the smaller coils into the larger before applying them. They are made long enough to keep the boxes A A′ apart when not compressed, or so that the latter will be respectively forced by the reaction of the springs, when compressed partially in the same, strongly against the nut c' and boss c^2 of the rod C, as represented in Fig. 2. The cross-beams D D′ are perforated at d^2 d^2, so as to allow the said nut and boss to pass freely through them during the movements of the rod and boxes.

The rod C extends forward within the neck of the buffer E to within a short distance of the mouth of the latter, and has a horizontally-slotted boss, c^3, on its forward end, which fits the neck so that it will slide easily in contact with the top and bottom plates of the same, and the slotted part of the rod C has a vertical hole through it for the easy reception of the removable bolt F, which connects it with the removable shackle G, and in the line of this bolt F longitudinal slots e^2 e^2 are made through the top and bottom plates of the neck of the buffer of sufficient lengths to allow the said bolt F to move freely along in the same nearly the full extent of the motions of the boxes A and A′.

It will be readily seen that in the operation of this draft-bar when the shackle G is drawn outward by the traction of the motive power, the rod C will cause the box A to slide inward in the box A′, thus compressing the springs B B′ and preventing any shocks or jarring in starting as well as in drawing the car, and that when the shackle G is

pushed inward the box A′ will be slid over the box A, and thus in like manner compressing all the springs, and preventing any rigid shocks or jarring when the car is forced backward.

It will also be seen that there is not any connection between the draw-bar on one end of the car and that on the other end, thus avoiding a long bar, and that in abutting two cars together the buffers, being rigidly fixed to the beams, receive the impact, and thus prevent any injury therefrom to the draft-bar and its springs, and that, independently of this advantage, the construction is such as to render it very effective as a spring draft-bar and durable in use.

Having thus freely described my improved draft-bar and shown its utility, what I claim as new therein of my invention, and desire to secure by Letters Patent, is—

The boxes A A′, springs B B′ B′ B′ B′, rod C, bolt F, and shackle G, in combination with a buffer, E, rigidly fixed to the platform of a car, the whole being constructed, arranged, and applied so as to operate together substantially in the manner described and set forth, for the purposes specified.

REMY FIEGEL.

Witnesses:
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