BURRIDGE & POST.

Car Coupling.

No. 20,139. Patented May 4, 1858.

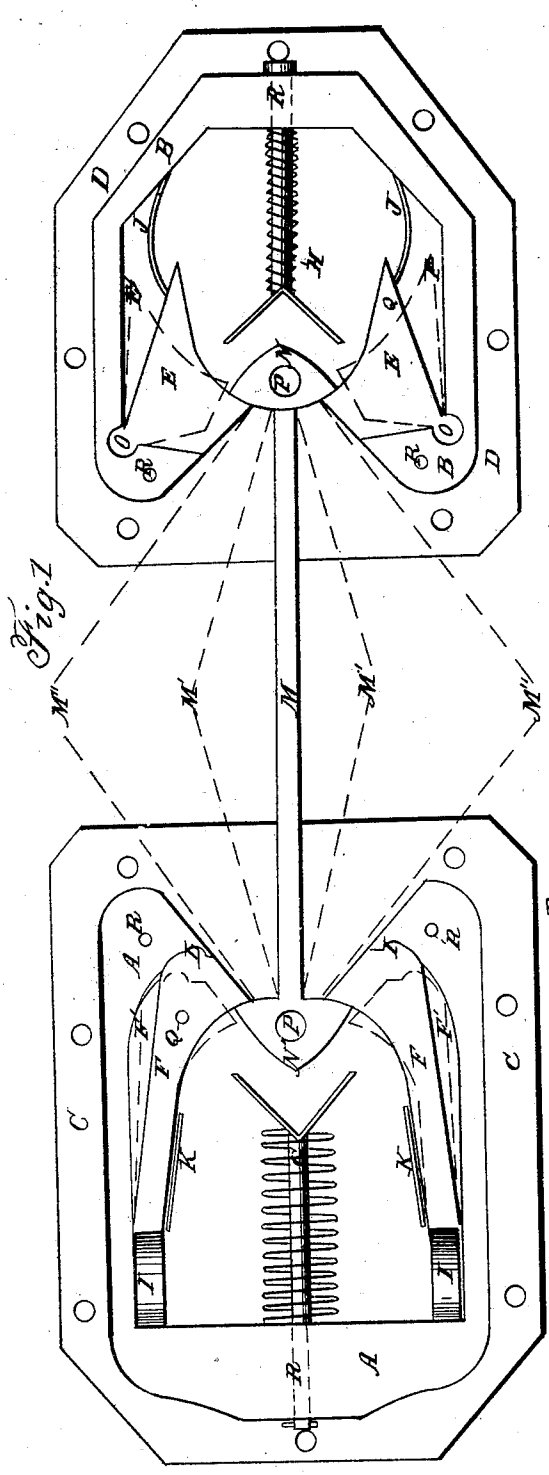


Fig. 1.

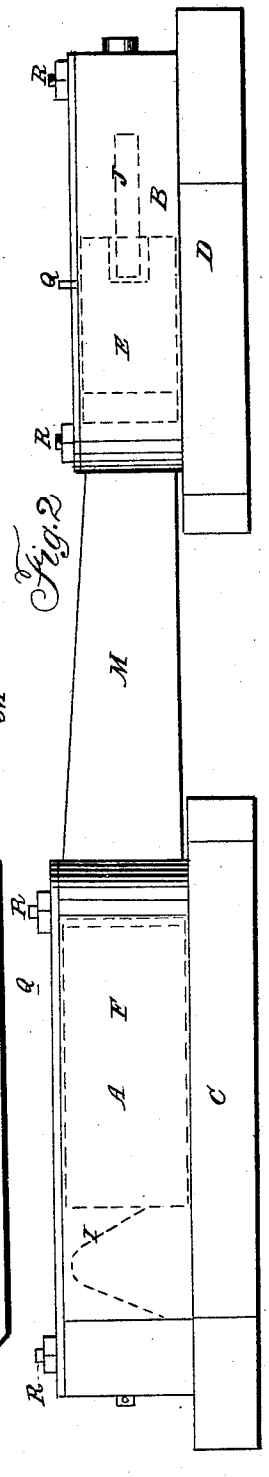


Fig. 2.

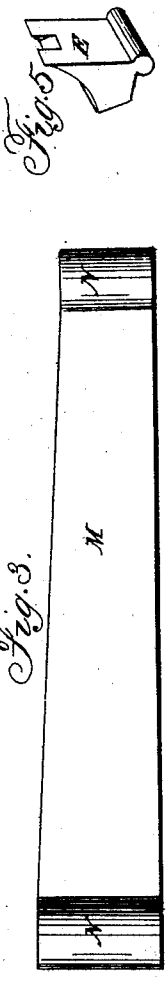


Fig. 3.

Fig. 4.

Fig. 5.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

W. H. BURRIDGE AND N. L. POST, OF CLEVELAND, OHIO.

RAILROAD-CAR COUPLING.

Specification of Letters Patent No. 20,139, dated May 4, 1858.

To all whom it may concern:

Be it known that we, WILLIAM H. BURRIDGE and NATHAN L. POST, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in the Construction of Railroad-Couplings; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 is a top view of the coupler, with the cap plate removed; Fig. 2, a side view of the same, with the cap plate in place; Fig. 3, a side view of the connecting rod detached; Fig. 4, a perspective view of the jaw F, and Fig. 5, a perspective view of the jaw E.

The nature of our invention consists in forming a compound self acting coupler, having movable self acting jaws, one set of which turn on a common center, or knuckle joint, and the other set of which slide back, in the act of self coupling, on a curved surface, and are thrown forward in place again by the springs, as soon as the head of the connecting rod has passed in; in having a connecting rod, with a head at each end, so formed as to force its way between the movable jaws when in the act of coupling, and so as to oscillate easily upon the interior surface of the jaws when in place; also in having a spring bunter with a flaring flange, so placed as to receive the head of the connecting rod, and prevent any hard jolting of the cars, the construction of the coupling being such also, that if one car should be thrown off the track, it is instantly detached from the train.

A A, and B B, Fig. 1, are the cases in which are the coupling parts; C D, the flanges by which they are bolted to the cars; E E, one set of movable jaws, and F F, the others; G, H, the spring bunters; I I, the two springs, which throw back the jaws F F; J J, the springs which throw back the jaws E E.

K K, are guides which aid in keeping the jaws F F, in place, and L L, are shoulders and grooves which also aid in keeping the jaws F; M the connecting rod, and N N, the heads of the connecting rod; O O, the knuckle joints, upon which the jaws E E turn.

P P are holes in the heads of the connecting rod, by which means they may be connected to any other cars, which have not this attachment, but use the common link and pin coupling.

Q, Figs. 1 and 2, are thumb pieces, by which means the jaws are moved, for uncoupling the cars. These thumb pieces pass through apertures in the cap plate.

R, are screws, which are provided with nuts for retaining the cap plate in place.

S, are holes in the flanges C and D, by which means the couplers are bolted to the cars.

The operation of this self coupler, is as follows: when the cars are being coupled, the head N, of the connecting rod M, passes in between the jaws E E, moving them back in the direction of the red lines E′ E′. Then by the action of the springs J J, the jaws are thrown back in place, by which means the head assumes the position indicated in the figure; and the head N passes in between the jaws F F, moving them back in the direction indicated by the red lines F′ F′. Then by the action of the springs I I, they are thrown forward in place; by which means the head assumes the position indicated in the figure.

The oscillation of the cars when in motion upon the track causes the connecting rod to assume the different angles with the car, indicated by the red lines M′ M′. The oscillation of the car, when on an ordinary road, will not cause the rod to move beyond the red line M′ M′, but should one of the cars in the train be thrown from the track, the rod instantly assumes the angle indicated by the red lines M″ M″, by which means the head of the rod is thrown around, so as to pass out of the jaws, and the car that is thrown off, is at once disengaged from the train.

That portion of the boxes or cases A and B, upon which the jaws E and F rest, is so constructed as to hold the jaws a sufficient distance apart to allow the head of the link or bar M, to come out, if its vibration be, beyond a proper distance.

The fulcra or joints L L, and O, O, are so arranged in the cases or boxes A and B, that the tendency of the drawing of the link or bar, will be to close or bring together the jaws by the heads N N′, which makes the coupling more secure.

What we claim as our invention in the above described coupling for railroad cars, is—

1. Making the fulcra of the jaws forward

of, or more toward the center of the coupling bar or link, than those parts of the jaws which catch the head of the link, so that the draft upon the link has a tendency to close the jaws substantially as described.

2. And in combination with vibrating jaws, having their fulcra arranged as above described, we claim the peculiar construction of the link or bar substantially as described; by which the said link connects the couplings, when the cars are run together, and by which they uncouple or disconnect themselves, when one of the cars is thrown from the track, or the link vibrated beyond a given angle, as described.

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Witnesses:
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