

P. CAMPBELL.

Improvement in Railway-Car Couplings.

No. 114,758.

Patented May 16, 1871.

Fig. 1.

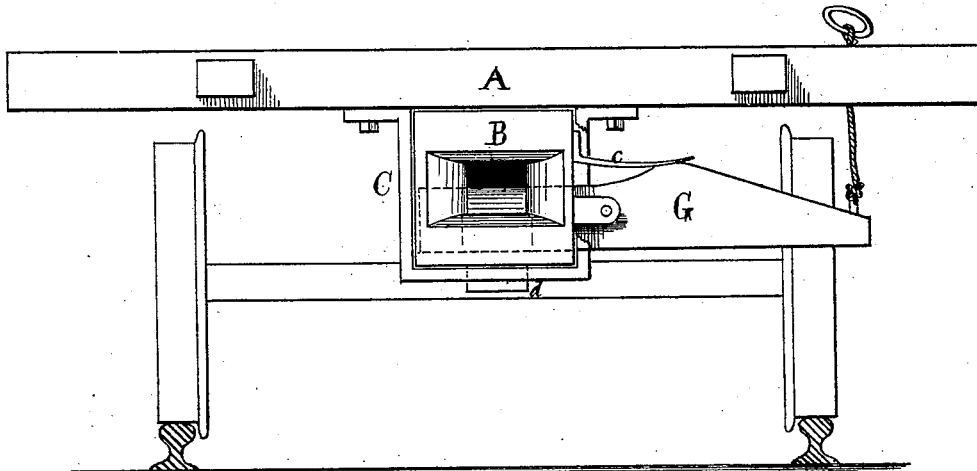
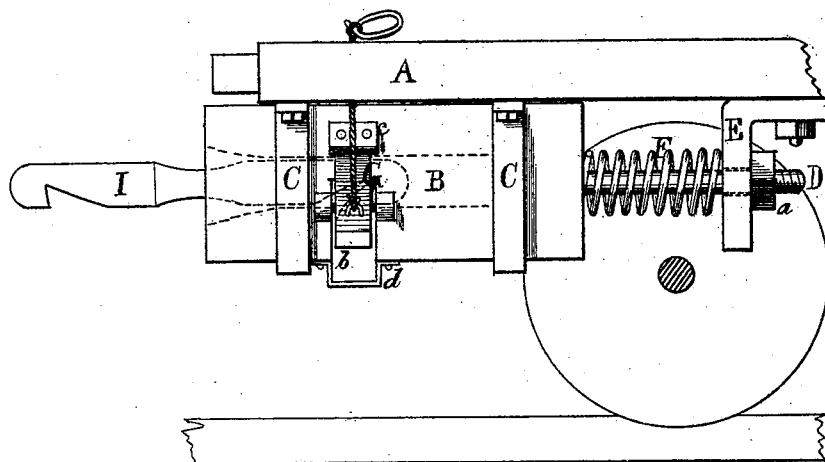


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

PETER CAMPBELL, OF CARROLLTOWN, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY-CAR COUPLINGS.

Specification forming part of Letters Patent No. **114,758**, dated May 16, 1871.

To all whom it may concern:

Be it known that I, PETER CAMPBELL, of Carrolltown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to fully understand and to make and use the same, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 is a front view of a car provided with coupling devices constructed according to my invention. Fig. 2 is a side elevation of the same, only the front portion of the car with the coupling being represented.

This invention belongs to the class of automatic car-couplings; and the object of my improvement is to provide a coupling which shall be simple and reliable, and capable of being uncoupled with ease and safety.

The invention consists in a lever attached to the draw-head and pivoted transversely thereto in a horizontal plane, the inner end of the lever occupying and working in a slot in the draw-head, while the outer end extends toward the side of the car. The lever is either weighted or is operated upon by a spring, so that as soon as the head of the coupling-bar, which in entering depresses the end of the lever, has passed, the lever immediately resumes its former position and couples the cars. To uncouple, the outer end of the lever is raised by means of a chain attached to the lever, and passing up through an opening in the platform, where it is provided with a hand-ring. The entire draw-head has a longitudinal play in its supports, and a spring, the tension of which can be regulated, is arranged at its rear end, so as to prevent unpleasant jars and shocks when the cars come together.

I will now proceed to describe my invention in detail, referring to the drawing, wherein similar letters of reference indicate like parts in the two figures.

The car-platform A, which may be of any suitable construction, supports the draw-head B, which has considerable play in suitable

bearings, supports, or hangers C. From the rear end of the draw-head projects a rod, D, which passes through an opening in a bracket, E, affixed to the bottom of the car. On the rod D, between the rear end of the draw-head and the bracket E, is placed a spring, F, the tension of which may be regulated by means of a nut, *a*, on the outer end of the rod, which is threaded.

When the cars come together the draw-heads meet, and, moving back, encounter the resistance of the springs, and thus the effect of the shock is destroyed.

The draw-head is made, as usual, with a flaring mouth, and in it is formed a transverse opening or slot, *b*, extending through from side to side, and from the under side about half-way up to the top of the draw-head.

To one side of the draw-head is pivoted a lever, G, of which the inner end occupies and works in the transverse slot of the draw-head, while the outer end extends toward the side of the platform. The front surface of that part of the lever which occupies the center of the draw-head is rounded or leveled off, as shown in dotted lines in Fig. 2. To cause the lever to immediately resume a horizontal position after its inner end has been depressed, the outer end is weighted, or a spring, *c*, is so applied as to effect the same result.

A staple or bar, *d*, is secured across the slot in the draw-head, to prevent the lever from being depressed too far.

The means for uncoupling may consist of a chain and a straight iron rod attached to the outer end of the lever, and passing up through an opening in the platform, where a "lying-down ring" or hand-piece is secured to the end of the chain. For ordinary use I purpose employing a coupling bar or link made about as shown at I in Fig. 2, with a rounded head and a notch at each end.

When the platforms of two cars to be coupled together are of unequal height, a bent bar or link, somewhat resembling the letter S in form, must be used.

The operation will be readily understood. When the cars come together the bar which is carried by one car enters the draw-head of the other and depresses the lever, which, as

soon as the head of the bar has passed, resumes its horizontal position, engaging with the notch in the bar and coupling the cars.

To uncouple, the outer end of the lever is elevated, when the bar is disengaged and left free to be drawn out.

My draw-head and coupling can be fitted to any car without the necessity of building the car to fit the improvement. It can be readily substituted for the draw-head now in general use without the necessity of preparing new bumping-beams, or even changing the "hitch,"

the same iron rod now in use answering perfectly.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the slotted draw-head B b and the lever pivoted thereto, and operating substantially as herein described.

PETER CAMPBELL.

Witnesses:

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I. R. S. CANAN.