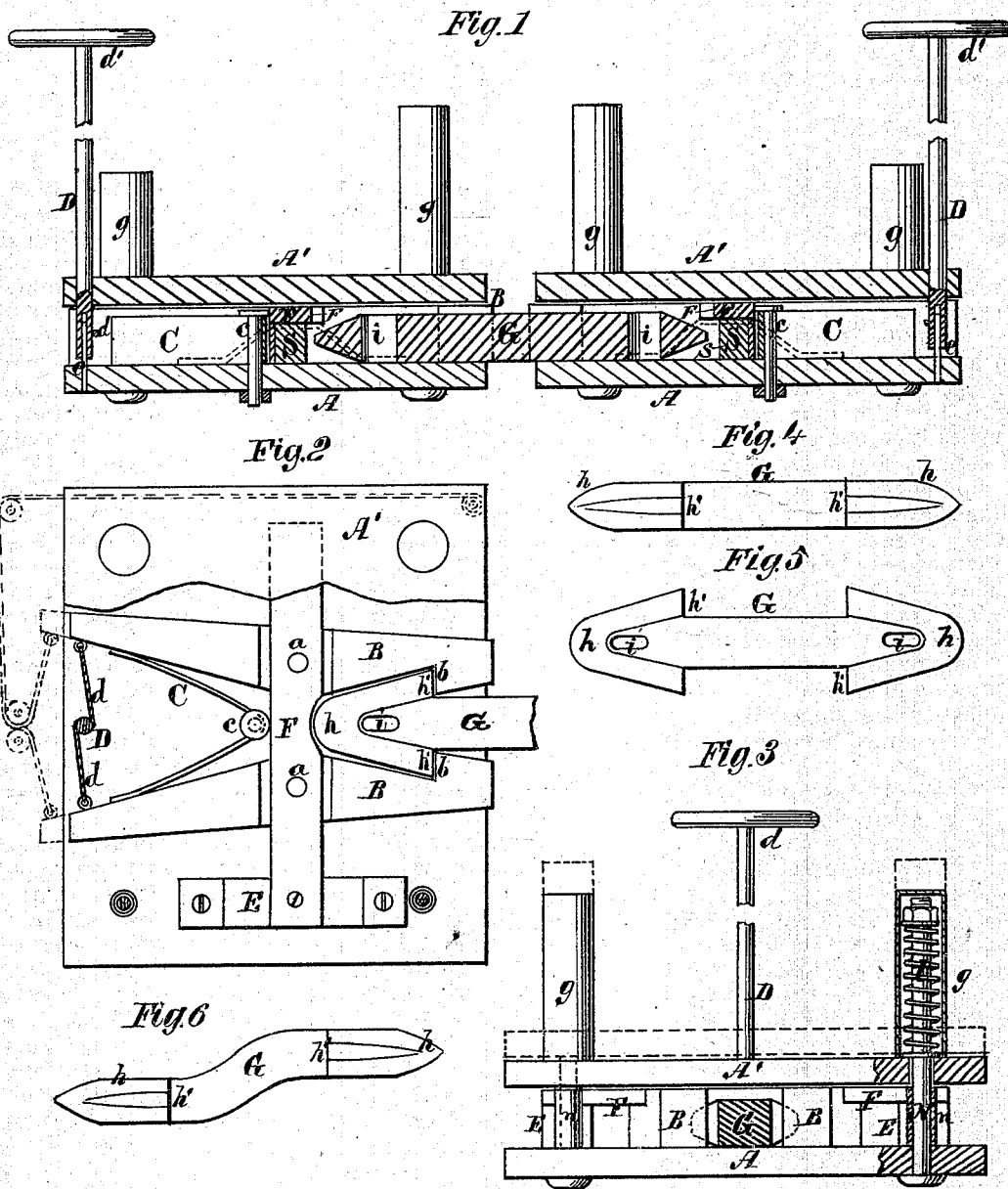


T. R. JACKSON.
Car-Couplings.

No. 146,342.

Patented Jan. 13, 1874.



Witnesses.

R. J. Campbell
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Inventor

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UNITED STATES PATENT OFFICE.

THOMAS R. JACKSON, OF DALLAS, TEXAS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **146,342**, dated January 13, 1874; application filed September 23, 1873.

To all whom it may concern:

Be it known that I, THOMAS R. JACKSON, of Dallas, in the county of Dallas and State of Texas, have invented certain Improvements in Railroad-Car Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a section taken longitudinally and vertically through the centers of two draw-heads with my couplings applied to them. Fig. 2 is a top view of one of the draw-heads and couplings, a portion of the top thereof being removed. Fig. 3 is a front elevation of one of the draw-heads and couplings. Figs. 4, 5, and 6 are views of the hooked coupling bars.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in a top plate of a draw-head made movable bodily up against springs, in combination with coupling-jaws arranged below it, all as hereinafter described.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawings, A represents that portion of the draw-head which is rigidly secured in the usual position or in any convenient manner beneath the floors of the platform of the car in a horizontal plane, and A' represents the top of the draw-head, which is vertically movable, and which is held down upon a horizontal transverse beam, F, by means of springs *t*, placed at the four corners of the said top piece. The cross-beam F is raised above the lower part A of the draw-head, and secured down upon bridge-supports E E, and beneath this beam are two coupling jaws, B B, which are pivoted at *a a*. The springs *t* surround vertical guide-rods N, and are inclosed in boxes *g*, as shown in the drawings. The springs *t* are confined down upon the top piece A' of the draw-head by means of nuts on the rods N, and beneath this top piece tubes *n* are applied around the guide-rods N, as shown in Fig. 3, for the purpose of supporting it at its corners when it is down upon the cross-beam F, as shown in Fig. 1. The jaws B B extend forward and in rear of the cross-beam

F, and their forward portions are beveled, so as to form hooks *b*. Their rear portions have a spring, C, applied between them, which is secured to a vertical bolt, *c*, and which acts to press the hooked ends *b* toward each other. To separate the hooked ends of the jaws B B I use a vertical hand-rod, D, having a hand-wheel, *d'*, on its upper end. This rod is stepped upon a stud, *e*, rising from the lower portion, A, of the draw-head, and it passes up through the top piece A', as shown in Fig. 1. Beneath the draw-head A the rod D is connected to the rear ends of the coupling-jaws B B, by means of chains *d d*, so that by turning the rods D the chains will be wound upon it in opposite directions, and the hooked ends of the jaws B can be moved apart far enough to disengage the arrow-head coupling-bar G from them.

In Fig. 2 I have shown by dotted lines a forked band connected to the extremities of the coupling-jaws, and passed between two pulleys, and then carried to a windlass-shaft at the front of the draw-head. This is intended as a modification and substitute for the shaft D and bands *d d*.

The coupling-bar G will be straight for cars whose draw-heads are of the same height, but for cars with draw-heads at different heights the bar G will be curved, as shown in Fig. 6. The bar G is constructed with arrow-heads on its ends, which are perforated vertically at *i i* to receive the well-known coupling-pins when necessary to use such pins. Each head presents two shoulders, *h' h'*, two beveled sides, and a flattened and rounded point, *h*, so that when two cars are brought together the arrow-heads will spread the coupling-jaws apart until the shoulders *h'* pass corresponding shoulders on said joints, when the latter will close and complete the coupling. S represents a buffer-spring, against which the coupling-bar will strike in making a coupling.

Should any car in a train leave the track, the top piece A' of the draw-head of such car will be forced upward by the coupling-bar G far enough to allow such bar to pass above the coupling-jaws B and escape therefrom; or should a car turn over a similar result will take place.

I am aware that hooked coupling-jaws and

arrow-head coupling-bars have been used on cars before my invention, and I do not broadly claim them.

I am aware of the rejected application of G. W. Smith for a car-coupling dated April 30, 1856, and therefore do not wish to be understood as claiming anything shown in his said application; but

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

The top A' of the draw-head, fitted loosely to rise at any point on vertical guides N N, and under springs *t t* on said guides, in combination with the pivoted spring coupling-jaws B B below it, all substantially in the manner and for the purpose described.

THOMAS RIVERS JACKSON.

Witnesses:

H. L. RAY,

J. D. BERRY.