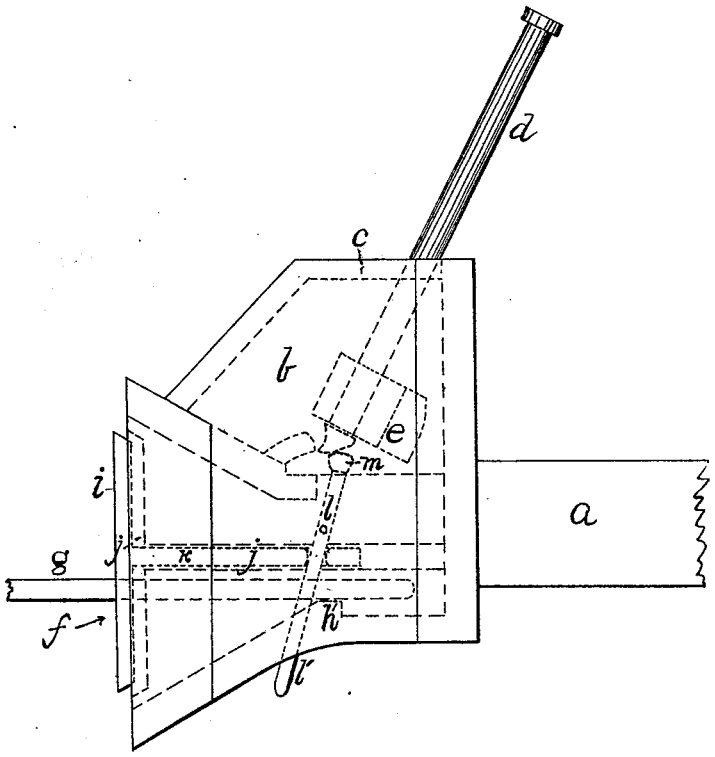
F. L. STEWART.

CAR-COUPLING.

No. 185,874. Patented Jan. 2, 1877.



Witness

Edward Stetson

John R. Mason.

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UNITED STATES PATENT OFFICE.

FRANK L. STEWART, OF CHARLESTON, MAINE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **185,874**, dated January 2, 1877; application filed November 16, 1876.

To all whom it may concern:

Be it known that I, FRANK L. STEWART, of Charleston, in the county of Penobscot and State of Maine, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompany drawings, forming a part of this specification, in which is shown a side elevation of my invention, with the pin elevated, the interior mechanism being shown in dotted lines.

My invention consists of an improved car-coupling, the construction and operation of which will be fully understood by the following description and reference to the drawing.

A shows the draw-bar, of ordinary construction, having a box, *b*, thereon, through an oblong opening in the top of which projects the pin *d*. This pin also passes through a weight, *e*, which is within the box. At *f* is the opening or mouth of the coupling, into which the link *g*, connecting the cars, passes, its inner end resting on a ledge, *h*. When the pin *d* is down, securing the link, the sliding weight *e* on said pin rests upon the inner end of said link, balancing it in a horizontal position, and at the same time allowing it to yield in any direction, enabling it to accommodate itself automatically to the coupling of the adjoining car.

The coupling is performed as follows, by means of the hereinafter-named devices. The bunter *i* is provided with openings *j*, within which are placed rods *k*, extending back. To the rear ends of these rods are suitably attached levers *l l*, pivoted to the sides of the box above the point of connection with the rods *k*, and having their upper ends connected by a cross-bar, *m*, placed across the opening in said box in which the pin is. The lower ends of these levers *l' l'* extend below the sides of the box *b*. When it is desired to couple to another car the pin *d* is raised, the lower ends *l'* of the levers *l* thrown forward, forcing the upper ends with the bar *m* backward and across the opening in the box. The upper end of the pin *d* is then tipped back, bringing its lower end forward so as to rest upon the cross-bar *m*, which supports it in an elevated position. The forward movement of the ends *l'* of the levers *l* also moves forward the rods *k* in the bunter, causing them to project beyond its face. As the other car approaches its link first enters the opening and comes into position under the suspended pin *d*. This is followed by its bunter striking upon the projecting rods *k*, forcing them in and reversing the position of the levers and cross-bar, which is withdrawn from its position under the pin *d*, allowing it to drop.

When the car is to be uncoupled, it is only necessary to raise the pin *d* out of the link, tip its upper end forward and drop it with its lower end resting on the bottom of the box back of the link. The cars may then be drawn apart without difficulty.

I do not claim the devices shown in the Patent of Wm. B. Johnson, No. 97,410, of November 30, 1869. My cross-bar *m*, upon which the pin rests when elevated, is moved either forward or back by its levers *l*, and only indirectly by the concussion of the opposing bunter, which acts upon the levers in one direction only. Moreover, in my coupling I avoid the use of a spring, which in the Johnson coupling is relied on to keep the slides out, and by the employment of a sliding weight upon the pin insure its fall, and at the same time balance the link without interfering with its free motion.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a car-coupling, the pin *d*, sliding weight *e* thereon, and cross-bar *m*, provided with operating levers *l l'*, in combination with rods *k* attached to said levers and operating in combination with them to trip the pin automatically by the concussion of the car-bunters, all of said parts being arranged and operating in the manner and for the purposes herein specified.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of November, 1876.

FRANK L. STEWART.

Witnesses:

FRED. G. BOYNTON,

WM. FRANKLIN SEAVEY.