

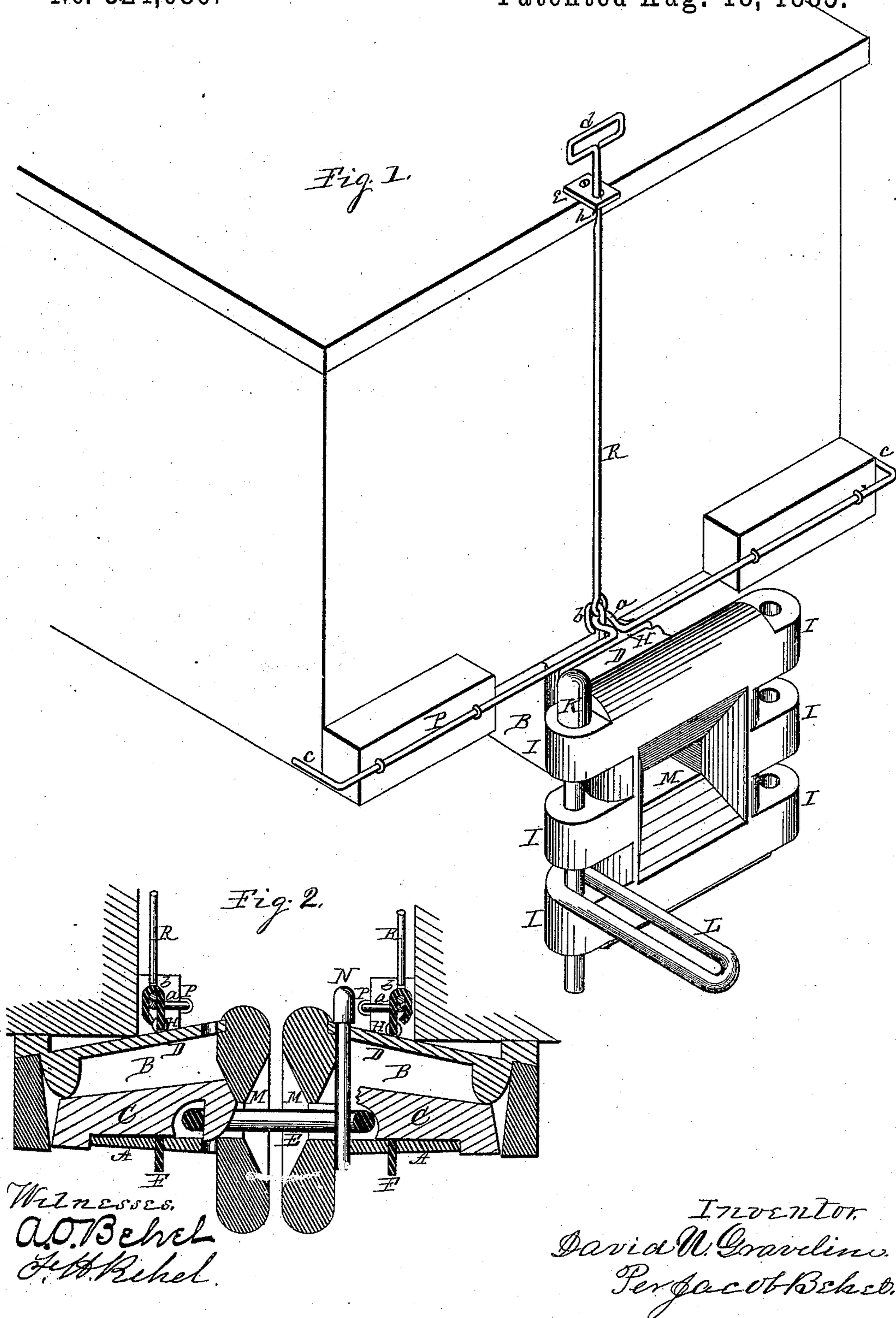
(No Model.)

D. U. GRAVELINE.

CAR COUPLING.

No. 324,680.

Patented Aug. 18, 1885.



UNITED STATES PATENT OFFICE.

DAVID U. GRAVELINE, OF BYRON, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 324,680, dated August 18, 1885.

Application filed January 26, 1885. (No model.)

To all whom it may concern:

Be it known that I, DAVID U. GRAVELINE, a citizen of the United States, residing in the town of Byron, in the county of Ogle and State of Illinois, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

This invention relates to a class of car-couplings known as "self-couplers;" and its object is to improve a self-coupling for which Letters Patent of the United States No. 197,838 were issued to Thomas B. Nutting and (myself) David U. Graveline, December 4, 1877; and it consists in combining with these draw-heads side ears and coupling-pins for safety side link connections, as represented in the accompanying drawings, and will be hereinafter more fully described.

In the drawings, Figure 1 is an isometrical representation of the end portion of a car with my improved coupler in place thereon, and Fig. 2 is a lengthwise vertical central section of the coupling.

The draw-heads represented in the figures, consisting, essentially, of the bottom A, sides B, draw-bar C, and removable top D, having their outer ends produced in hollow pyramidal open form, also the means for disconnecting the draw-bar C from its hook-connection with the coupling-link E, consisting of the vertical shaft F, to slide vertically in an opening formed in the bottom A of the draw-head to lift the draw-bar, and a rectangular yoke, H, connecting with the vertical shaft and embracing the draw-head, and capable of an upward sliding movement to lift the draw-bar, are in the main substantially the same as like parts constituting the subject-matter of the patent hereinbefore cited, and I do not deem it necessary to give a more minute or detailed description thereof in this specification.

The draw-head herein described I have provided with ears I, projecting laterally from the sides thereof at proper intervals, forming openings or spaces to receive a coupling-link between the ends, and these ears I are bored vertically to receive a coupling-pin, K, to pass through the opening in the

coupling-link L, placed between the ears, as shown in Fig. 1, furnishing an additional or safety coupling, or means for coupling cars varying in height to such an extent as to lessen the efficiency of the center self-coupling. I have also fitted these draw-heads with central vertical openings, M, to receive a coupling-pin, N, to engage the coupling-link, as shown in Fig. 2, when from any cause the draw-bar C becomes broken or rendered inefficient.

At P is represented a rock-bar extending across the end of the car, to which it is supported to oscillate in staple or other suitable bearings. The central portion of the rock-bar is produced at a in loop crank form to receive the upward-rising loop end portion b of the yoke H, in such a manner that the oscillatory movement of the rock-bar will operate to raise or lower the yoke, and, by reason of its connection with the vertical shaft F, will lift the draw-bar to disengage it from the coupling-link E. The end portions, c, of the rock-bar are bent at right angles to the bar at the sides of the car, and serve as levers to operate the bar from either side of the car.

At R is represented a rod having a loop-connection at its lower end, with the uprising loop b of the yoke H, from which it rises above the roof of the car, and its upper end portion is fitted at d in loop form to receive the hand of the operator to raise or lower the yoke, and consequently the draw-bar with which it connects. The upper portion of the rod R is supported to slide in a guide, e, fixed to the car, and the rod is fitted with a notch, h, to engage the guide to hold the rod in its elevated position to hold the draw-bar disconnected from the coupling-link.

By the employment of the rock-bar P in connection with the yoke H, I am enabled to uncouple the cars from either side, and by means of the vertical rod R in connection with the yoke H, or with the crank-arm of the rock-bar P, I am enabled to uncouple from the top of the car; and by means of the notch in the vertical rod R in connection with the guide e the draw-bar can be supported in its

elevated position, to prevent coupling when the cars are run together, or to permit them to be separated.

I claim as my invention—

- 5 The combination, with the draw-head provided with self-coupling devices, of a series of three or more lateral ears centrally bored

for the reception of a coupling-pin, whereby a link can be coupled at different heights, as set forth.

DAVID U. GRAVELINE.

Witnesses:

RICHARD HART,
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