

G. A. SEIDEL.
CAR COUPLING.

Patented Sept. 4, 1894.

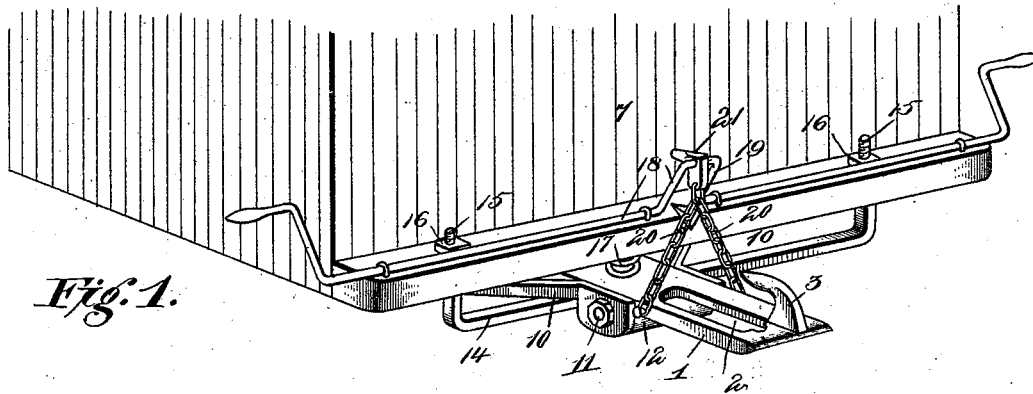


Fig. 1.

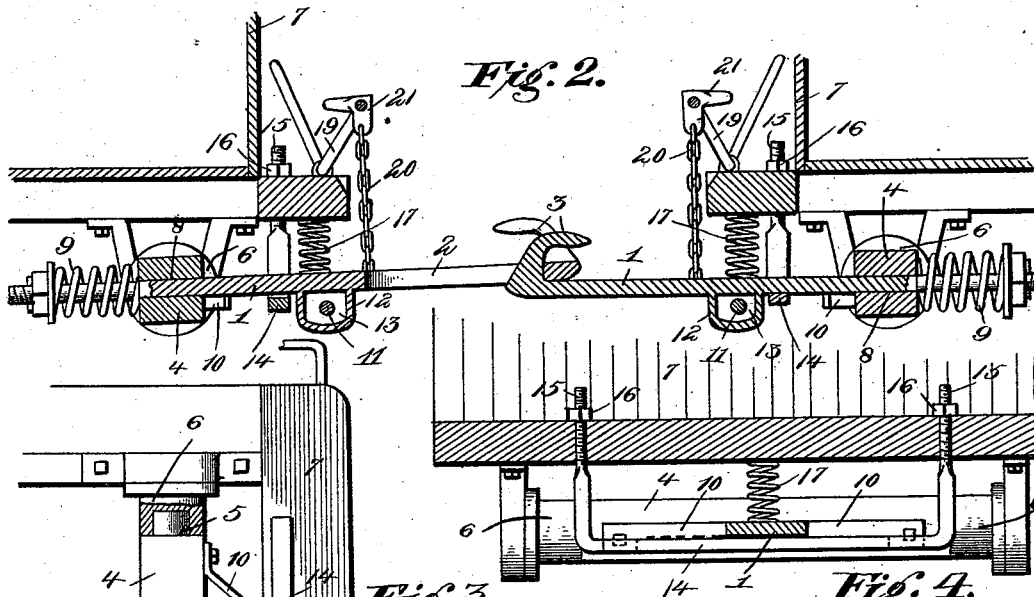


Fig. 2.

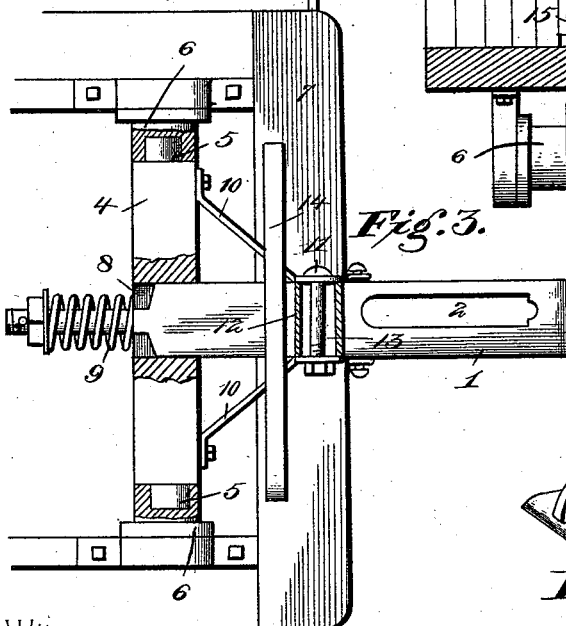


Fig. 3.

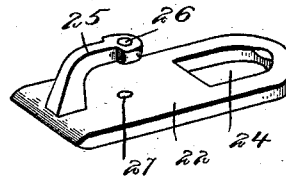


Fig. 4.

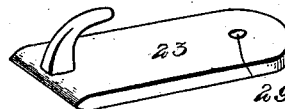


Fig. 5.

Ingvenglör

Witnesses

John C. Thayer
J. G. Riley

By *its*, Attorneys.

George A. Seidel,

Chas Snow & Co

UNITED STATES PATENT OFFICE.

GEORGE A. SEIDEL, OF NORRISTOWN, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 525,430, dated September 4, 1894.

Application filed February 10, 1894. Serial No. 499,787. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. SEIDEL, a citizen of the United States, residing at Norristown, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car couplings.

10 The object of the present invention is to simplify and improve the construction of car couplings, and to provide an inexpensive one, which may be readily applied to the ordinary construction of cars, and which will be capable of automatic coupling and of ready uncoupling without going between cars.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

20 In the drawings—Figure 1 is a perspective view of a car coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view showing two cars coupled. Fig. 3 is a reverse plan view partly in section. Fig. 4 is a transverse sectional view. Figs. 5 and 6 are detail views of coupling links to enable the improved car coupling to couple with the ordinary forms of couplings.

25 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

30 1 designates a draw-bar provided with a longitudinal opening 2, and having on its upper face at its outer end an upwardly and inwardly extending hook 3, adapted to engage and couple with the opening 2 of a similar draw-bar. The hook is arranged at one side of the opening; the front end of the draw-bar is slightly beveled; and the hook of one draw-bar engages the opening of another, thereby providing a duplicate or double car-coupling, which, in event of the breakage of one of the hooks or one of the openings, may readily bring the other pair into similar engagement. The beveled outer ends of the draw-bars are adapted to readily ride over each other to effect an automatic coupling.

35 50 The draw-bar is connected with a transverse pivot or trunnion bar 4, which is provided at its ends with journals 5 arranged in

suitable bearings 6 of a car 7; and it is provided with a central opening 8 in which the rear portion of the draw-bar is mounted. 55 The rear end of the draw-bar is extended inward beyond the trunnion or pivot bar, and has mounted on it a heavy spiral spring 9, which bears against the trunnion or pivot bar and cushions the draw-bar. 6c

The cushion spring is secured on the draw-bar by any suitable means, such as threading the tail end of the draw-bar and employing a nut and washer, or the like. The front portion of the draw-bar is supported by opposite converging braces 10, having their inner ends secured to the transverse pivot bar at opposite sides of the draw-bar, and converging toward their outer ends, which are connected by a transverse bolt or pin 11 with the draw-bar. The draw-bar is provided with an enlargement 12, and has an enlarged bolt or pin opening 13 to permit the draw-bar to have a limited longitudinal movement independent of the transverse bolt or pin 11 to avoid straining or breaking the latter and similarly injuring the braces. 65 70 75

The draw-bar is supported and held at the proper height for automatic coupling by an approximately U-shaped or rectangular support 14, which is vertically adjustable, and which consists of a transverse portion extending horizontally beneath the draw-bar, and vertical sides adjustably secured to the car. The sides may be made adjustable by any suitable means, such as, threading their upper portions 15 and providing nuts 16; but, any other suitable means for enabling the support to be adjusted vertically may be employed. A spiral spring 17 is interposed between the upper face of the draw-bar and the adjacent portion of the car to hold the draw-bar upon the bottom of the adjustable support, and to prevent it from accidentally swinging upward when cars come together for coupling. In adjusting the draw-bars for automatic coupling one of them should be arranged slightly above the other to enable it to readily ride over the inclined shank of the hook 3 for coupling; and the lower edge of the outer end of the draw-bar is beveled to facilitate such operation. 80 85 90 95 100

The operation of uncoupling is performed from the sides of a car by a transverse rock-

shaft 18 terminating in handles, and provided with a central loop or bend 19 forming an arm, which is connected by a chain 20 with the opposite side of the draw-bar. By rocking the shaft and swinging its arm upward the draw-bar is lifted for uncoupling. The chain is provided with two branches, one extending to one side of the draw-bar and the other to the other side; and the other end of the chain is connected directly to a block 21, which is approximately L-shaped, and which prevents the arm of the rock-shaft from swinging down too far by coming in contact with the car, whereby the draw-bar is held elevated.

Any suitable means may be provided for lifting the draw-bar for uncoupling from the top of a box car or the platform of a coach.

It will be seen that the car coupling is simple and comparatively inexpensive in construction, that it is strong and durable and positive and reliable in operation, and that it is capable of automatic coupling and may be readily uncoupled without going between cars.

In order to enable the improved car coupling to be readily coupled with the ordinary forms of couplings in use, such as the Janney coupling and the bullnose or pin and link coupling, links 22 and 23 are provided. The link 22 consists of a flat plate provided at its outer end with a hook similar to that heretofore described, and the inner end of the plate is provided with an enlarged opening 24 to fit in the horizontal slot or recess of the Janney knuckle. The upper end of the hook 25 is provided with a perforation 26, which registers with a corresponding perforation 27 of the plate; and these perforations are adapted to receive a pin for locking the hook in engagement with a link. The link 23 is provided at its outer end with a hook,

and has at its inner end a perforation 29 adapted to receive the coupling pin of an ordinary pin and link draw-head. By this construction the link 23 is held in the open mouth of a pin and link draw-head with sufficient rigidity to couple with the improved car coupling before described.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a car coupling, the combination of a transverse pivot bar designed to be journaled in suitable bearings of a car, a draw-bar mounted on the pivot-bar and provided with an elongated opening arranged transversely of it, forwardly extending converging braces having their inner or rear ends secured to the pivot bar, a transverse bolt arranged in the elongated opening of the draw-bar and securing the outer ends of the braces to the latter, a vertically adjustable support sustaining the draw-bar and extending beneath the same, and a spring for holding the draw-bar upon the support, substantially as described.

2. In a car coupling, the combination of a draw-bar having a longitudinal opening and provided with an upward extending hook, and a link consisting of a flat plate provided at its inner end with an opening and having at its outer end an upward extending hook, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

G. A. SEIDEL.

Witnesses:

JOHN H. SIGGERS,
MICHAEL O'BRIEN.