

T. N. PENGELLY.

Car-Couplings.

No. 136,176.

Patented Feb. 25, 1873.

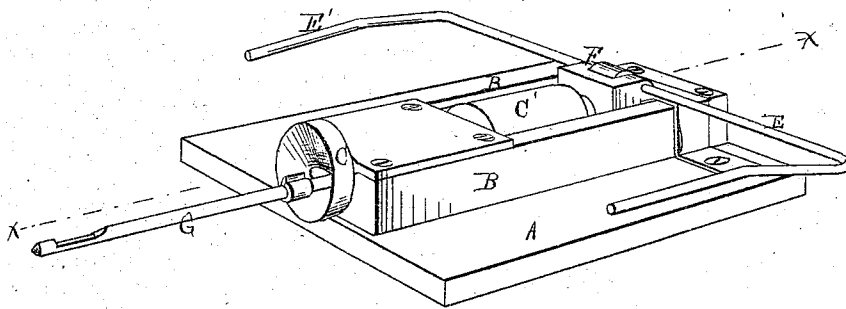


Fig. 1.

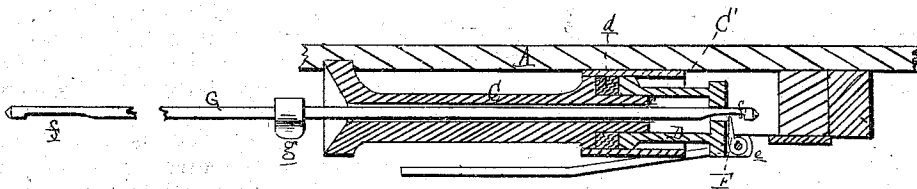


Fig. 2.

ATTEST:

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UNITED STATES PATENT OFFICE.

THOMAS N. PENGELLY, OF DETROIT, MICHIGAN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 136,176, dated February 25, 1873.

To all whom it may concern:

Be it known that I, THOMAS N. PENGELLY, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Car-Couplings; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a bottom-perspective view of my improved car-coupling, and Fig. 2 is a vertical longitudinal section of the same.

Like letters refer to like parts in both figures.

The nature of this invention relates to an improvement in that class of car-couplings in which a double harpoon is employed to connect the coupling of one car to or with that of another, its object being to render the coupling of the cars automatic and certain, while the uncoupling or disconnecting of the cars may be effected without going between them. The invention consists in the peculiar construction of the device and the arrangement of the several parts, for the purposes as more fully hereinafter set forth.

In the drawing, A represents the floor or platform of a car, and B the longitudinal bumper-sills under each end of the car. Between the sills B is bolted a stationary draft-iron, C, by bolts *a* passing up through the flanges which project laterally from its sides. The outer end of the draft-iron has a concave or bell mouth, to direct the harpoon-coupling to the passage in its center. The rear end of the iron terminates in a cylinder or cup, C', and which surrounds an inner guide-pipe, *c*, which extends from the mouth of the draft-iron nearly as far as the rear end of the cup C'. In the base of the cup is placed an annular rubber cushion or spring, *d*. D is a hollow piston, which is inserted in the cup sliding over the guide-pipe *c*. At the lower corners of a square flange, which forms the rear end of the hollow piston or plunger, is a pair of

studs, *e*, through which is journaled a horizontal shaft, E, extending across the car-bed the full width thereof. The ends of the shaft are bent to form cranks E', by which the shaft may be partially rotated by a person standing at the side of the car. To the shaft, between the lugs, is secured a strong cam-latch, F, which, by the weight of the cranks, is kept against the back end of the hollow plunger, its upper edge extending to mid-height of the bore through it. G is a double-pointed harpoon coupling-bar, with a notch, *f*, on the under side near each end. Midway of the length of the bar a bob-weight, *g*, is secured thereto, the purpose of which, while the harpoon is in the draft-irons, is to keep it in such position that the notches will always be underneath.

The harpoon projecting one-half its length from the coupling of one car, when another approaches the first its bell-mouth directs the end of the harpoon into the guide-tube, through which it passes, and also through the hollow plunger, pushing back the cam-latch until its notch passes by, when the weight of the cranks E' causes the cam-latch to fall forward into the notch, and thus prevents the withdrawal of the harpoon until the same is released by raising the cranks.

The rubber spring *d* serves as a cushion to ease the strain on the harpoon and cam-latches when the train is started forward suddenly, as the plunger comes against the said spring for that purpose.

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

The construction and arrangement of the hollow draft-iron C C', hollow piston D provided with lugs *e e*, the cushion *d*, the cranked shaft E, the cam-latch F, and the harpoon G, provided with the notches *f f* and weight *g*, as and for the purpose set forth.

THOMAS N. PENGELLY.

Witnesses:

H. F. EBERTS,
H. S. SPRAGUE.