

(No Model.)

E. PERROTÉ.
CAR COUPLING.

No. 501,577.

Patented July 18, 1893.

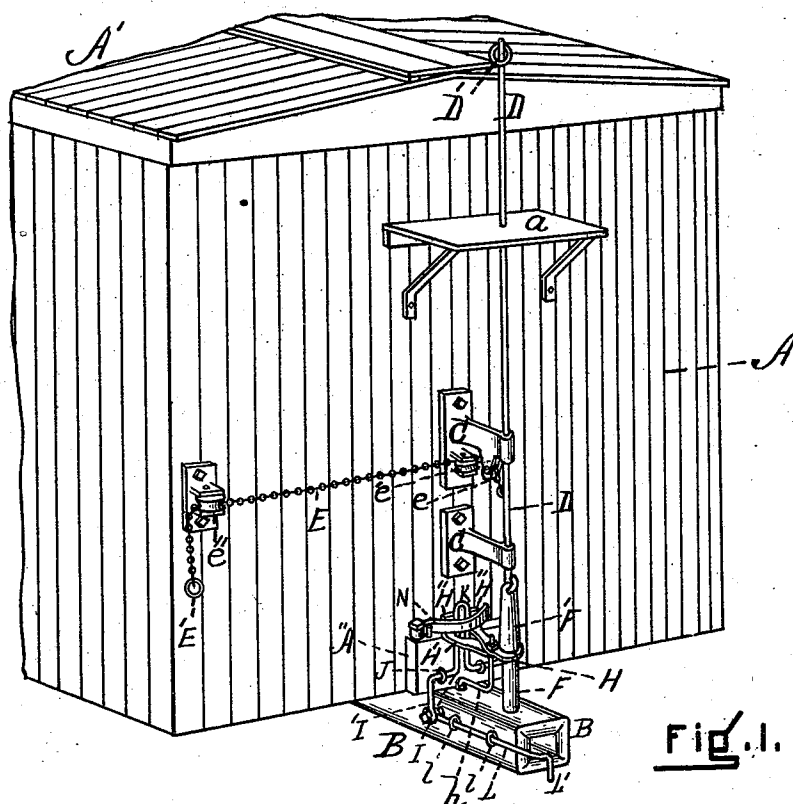


Fig. 1.

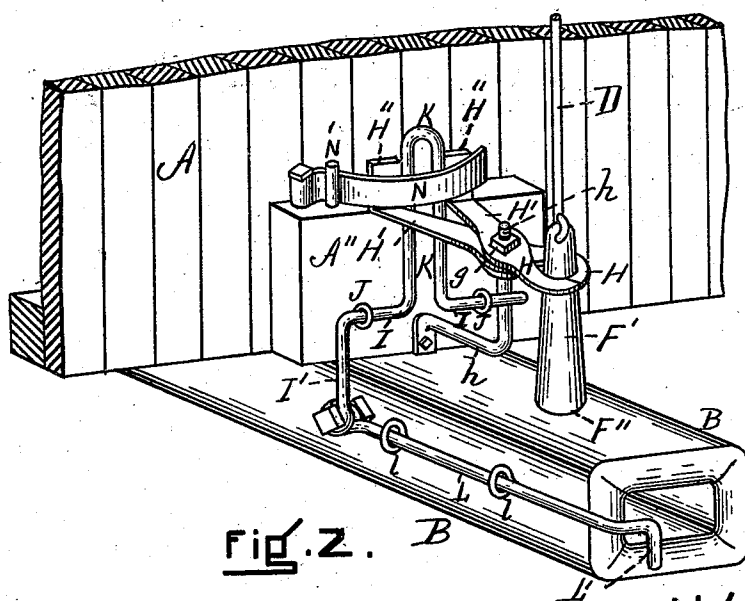


Fig. 2.

WITNESSES

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 501,577, dated July 18, 1893.

Application filed May 9, 1893. Serial No. 473,526. (No model.)

To all whom it may concern:

Be it known that I, EUGÈNE PERROTÉ, a citizen of the United States, residing at Sandwich, in the county of Barnstable and State of Massachusetts, have invented a new and useful Improvement in Couplings for Freight-Cars, of which the following is a specification.

This invention relates to that class of couplings for freight cars in which the action of the coupling is automatic, the brakeman or employé not being required to insert the link, nor to stand between the cars. The cars are uncoupled from the top or from the ground, as desired, and the ordinary link may be employed.

The nature of the invention is fully described below, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing an end of a freight car provided with my coupling device. Fig. 2 is an enlarged perspective view of the most important portions of the apparatus.

In Fig. 1, the pin or bolt, which drops into the link, is raised, and in Fig. 2, it is dropped into the position assumed when the car is coupled.

Similar letters of reference indicate corresponding parts.

A represents an end and A' the roof of a freight car.

B is the draw-bar adapted to receive an ordinary link.

Secured to the end of the car are guiding brackets C, whose outer ends are provided with vertical holes through which extends loosely a vertical lifting rod D. This lifting rod extends through the platform *a* to the top of the car, at which point it is furnished with an ordinary ring D' for the convenience of a brakeman on the roof of a car. A lifting chain E extends from the lower portion of the lifting rod over pulleys *e e'* supported by the upper bracket C, and the pulley *e''* secured to the end A of the car near its edge, and its outer end is provided with a ring E' which hangs in a position accessible to an employé on the ground.

The lower end of the lifting rod D is secured to the coupling pin, which consists of

two portions, viz., the lower portion F which is of the circular shape shown and of even diameter throughout its length, and the upper portion F' which is substantially cone shaped, the lower end constituting a shoulder F'' and being of greater diameter than the portion F. The portion F of the coupling pin is adapted to drop into a hole of corresponding shape in the draw-bar, and is long enough to extend through the socket therein and into the lower wall of the draw-bar, the shoulder F'' resting on the top thereof, as shown in Fig. 2.

A grappling hook is supported by a bracket *h* secured to the block A'' on the lower portion of the end of the car, and consists of two horizontal crossed levers whose front ends H are hook shaped as illustrated, and whose rear portions H' are bent up vertically at their ends as shown at H''. The supporting bracket *h* consists of a bent rod whose free end extends vertically through the said levers at their intersecting point, suitable nuts, as *g*, being provided to secure them in position. A rod or shaft I has its bearings in suitable eyes J secured to the block A'', and this rod is bent up between its bearings into a double vertical arm or loop K, which extends up against the block between the rear portions H' H'' of the grappling hook. One end of this rod I is bent downward at I' at the side of the draw-bar, and its lower end is secured pivotally to the rear end of a horizontal rod or bar L, which slides in eyes *l* extending from the side of the draw-bar. The front end of this sliding rod is bent in horizontally, and thence down over the front or mouth of the draw-bar as shown at L'. A curved spring N is secured at one end to the top of the block A'', and is held by a post or pin N', or other suitable means, so that it presses against the loop or extension K, holding it normally up and back, and against the portions H'' of the grappling mechanism, holding them normally in against said loop.

When the car is uncoupled, the device is in the position shown in Fig. 1, that is, with the coupling pin raised so that its cone shaped portion F' rests, by means of the shoulder F'', on the upper surfaces of the hooks H, which close around the portion F of the pin and are

held in such closed position by the pressure of the spring N on the rear turned-up ends H". When the car is to be coupled, the approaching car (or its draw-bar) strikes the bent end L', forcing the rod L back and with it the lower end of the portion I' of the bent rod I, which, rotating in its bearings, swings forward the extension or loop K, spreading the rear portions H' of the levers apart, and hence, the hook portions H, releasing the pin, which drops into the position shown in Fig. 2 through the link which has been pushed meanwhile into the draw-bar B by the draw-bar of the approaching car. To uncouple, the lifting rod D is drawn up, either from the top of the car by means of the loop D', or from the ground by means of the chain E. As it lifts the pin, the conical portion F' spreads the hooks H until they snap, by the power of the spring N, under the shoulder F"

upon the portion F and sustain the pin in the position shown in Fig. 1.

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

In a coupling for freight cars, the combination of the rock-shaft I provided with the extension K and arm I', the reciprocating bar L extending along the draw-bar and provided with an end adapted to be engaged by the approaching car, the pivoted grappling hooks H H' H'', their rear portions straddling the said extension K, the spring N bearing against said extension and rear ends of the grappling levers, the coupling pin F F', and lifting bar D, substantially as set forth.

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Witnesses:

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