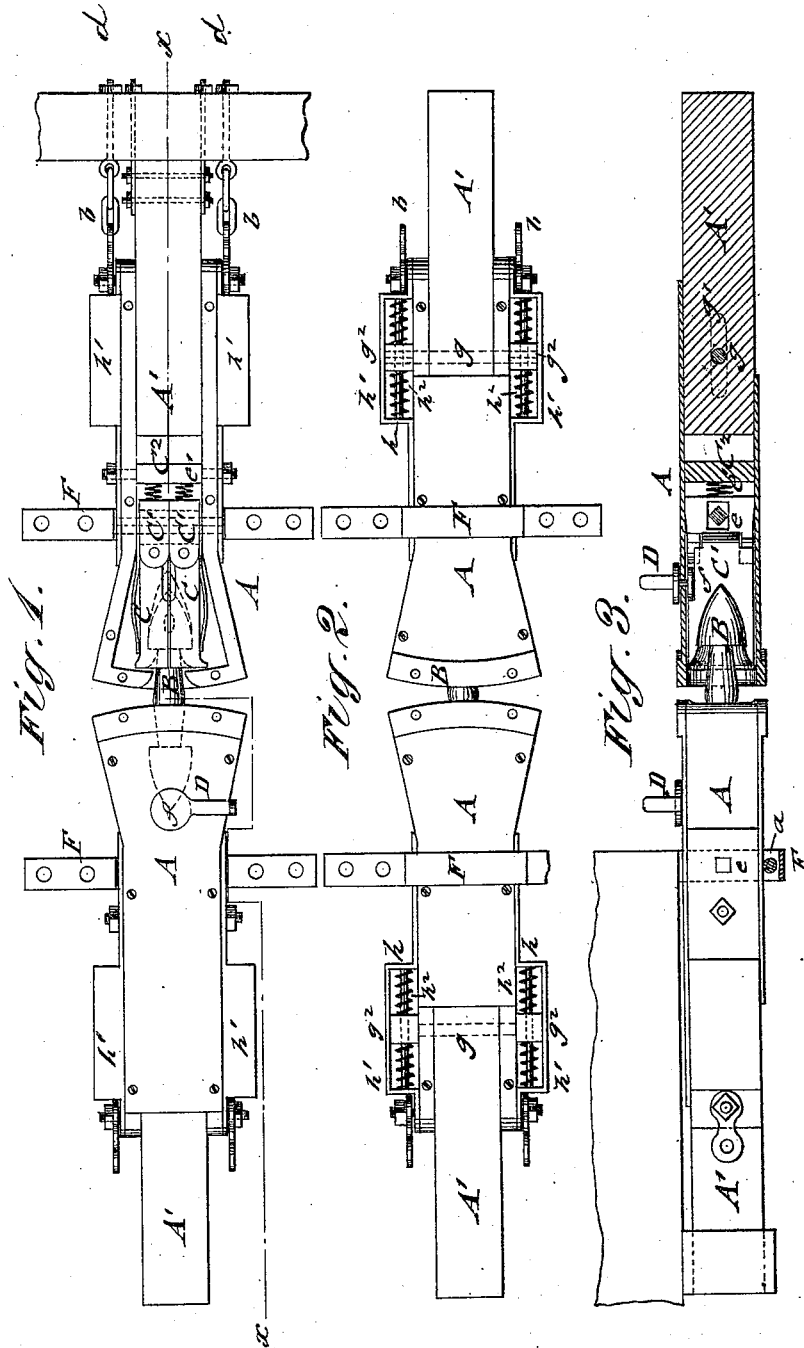


M. R. DELAY.
Car-Coupling.

No. 200,438.

Patented Feb. 19, 1878.



WITNESSES:

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MICHEAL R. DELAY, OF HELENA, MONTANA TERRITORY.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **200,438**, dated February 19, 1878; application filed April 9, 1877.

To all whom it may concern:

Be it known that I, MICHEAL R. DELAY, of Helena, in the county of Lewis and Clarke and Territory of Montana, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, shown with top plate removed in part, of my improved car-coupling. Fig. 2 is a bottom view; and Fig. 3, a side view, partly in longitudinal section, on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved automatic car-coupling of that class in which links with arrow-shaped heads are coupled by interior spring-jaws of the draw-head in such a manner that the uncoupling of the cars is produced when any car jumps the track.

The draw-head is attached in such a manner to the car-bottom that the forward strain in pulling and the shock of the concussion are taken up in superior manner.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

In the drawing, A represents a draw-head of the usual size and shape, that is attached to the car-bottom by a front stirrup, F, with friction-roller *a*, and made to slide on a rear extending beam, A', of wood that is mortised into the bolster of the car-frame, and attached thereto by side plates and bolts, as shown in Fig. 1.

The rear end of the sliding draw-head A is connected, by short chains *b*, with bolts *d* of the bolster, so as to take up the strain transmitted by the forward motion of the draw-head when the cars are in motion.

The coupling-link B enters the tapering mouth of the draw-head, and forces, by its arrow-shaped head, the spring-acted and pivoted jaws C sidewise, so that they lock on the head of the link as soon as the same has passed back of the hooks of the jaws.

The blocks C¹, to which the jaws are pivoted, are applied by slots to a cross-bolt, *e*, so as to slide in the draw-head, and are cushioned by spiral or other springs, *e'*, that rest

against a fixed lateral block, C², so as to take up the force of the concussion of the links and jars in coupling, giving way in proportion to the strain produced.

The link is uncoupled by a lever, D, with interior cam *f*, that swings in recesses, and bears against top shoulders of the jaws for forcing them sidewise and clear of the head of the link, so that it may be withdrawn. The head of the link is made with curved or tapering top and bottom sides, which admit the automatic uncoupling of the link as soon as the same is twisted into vertical position by any car being thrown off the track, producing the instant detaching of the car without injury to the adjoining ones.

The draw-head A is connected to the wooden rear beam A' by a cross-pin, *g*, that moves in a horizontal slot, *g*¹, the cross-pin *g* sliding, by outer end nuts or heads *g*², on longitudinal guide-rods *h*, that are supported in brackets or side frames *h*¹ of the rear part of the draw-head.

Between the nuts *g*² and the brackets *h*¹ are interposed spiral or other cushioning-springs, *h*², that take up the shock of the concussion of the draw-heads in coupling as well as the strain exerted thereon when the cars are in motion. Whatever strain the springs fail to take up is assumed by the pin bearing on the wooden beam at the ends of the slot, the springs resuming their original tension when the strain is released.

The draw-head and beam transmit the strain, by the connecting-chains, to the bolster of the truck-frame, and by the connecting side straps, which also take up, finally, the shock of the concussion in coupling.

The link-head is perforated to admit coupling with the common draw-head.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A car-coupling whose draw-head slides and is connected by chains *b* with the bolts *d*, substantially as and for the purpose specified.

MICHEAL R. DELAY.

Witnesses:

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