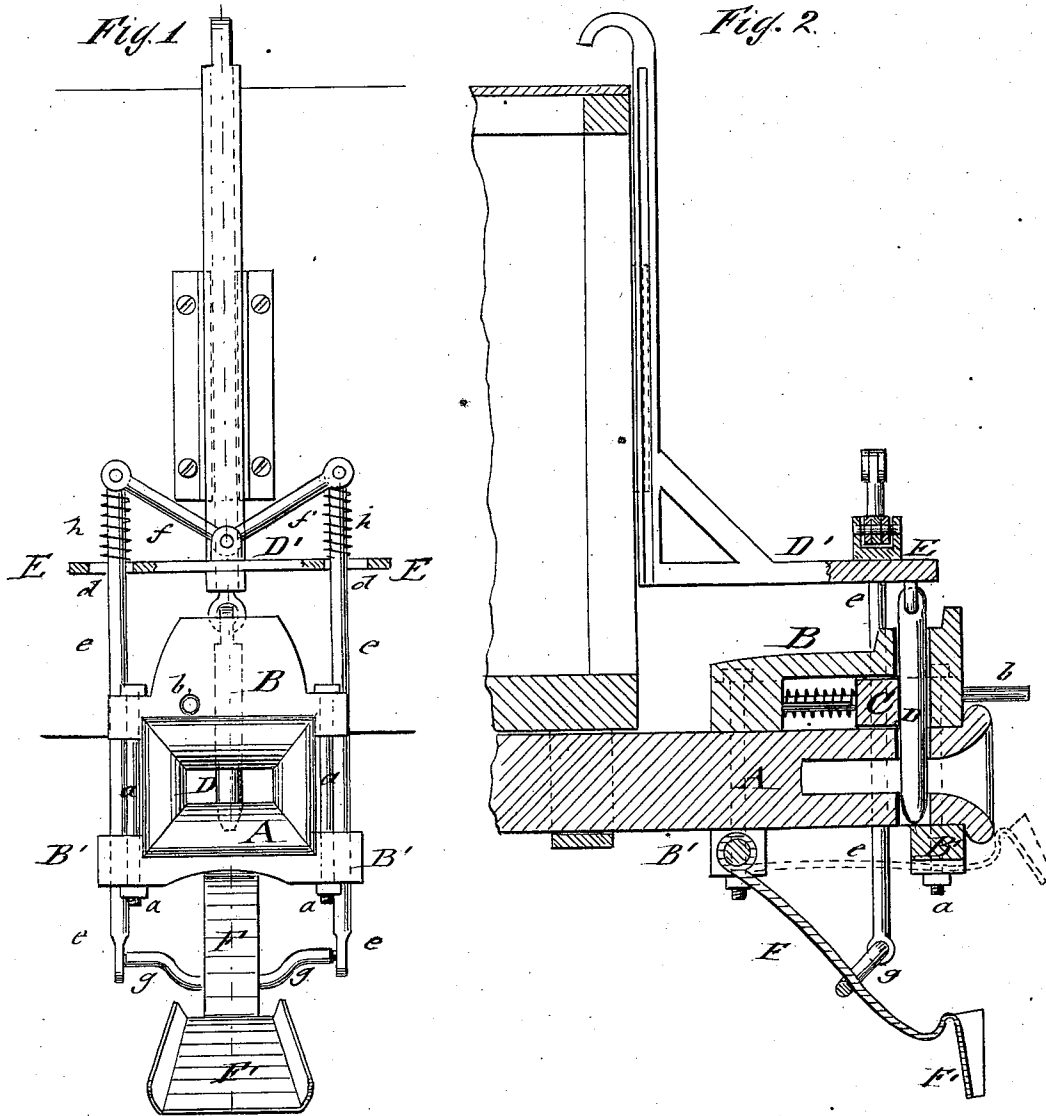


G. W. KYLE.
Car-Coupling.

No. 164,188.

Patented June 8, 1875.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GEORGE W. KYLE, OF MILO, OHIO.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 164,188, dated June 8, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. KYLE, of Milo, in the county of Defiance and State of Ohio, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a front elevation of my improved car-coupling, and Fig. 2 a vertical longitudinal section of the same.

Similar letters of reference indicate corresponding parts.

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

In the drawing, A represents a draw-head of the common construction, which is applied in suitable manner to the car. A flat casting, B, with guide-recesses for a spring-acted slide-piece, C, is secured by strong bolts *a* to the top of the draw-head, both being provided with guide-holes for the coupling-pin D. The bolts *a* are applied by washers and nuts to lateral pieces B', which bind the top casting firmly to the draw-head. The spring-acted slide-piece C has an arm or rod, *b*, that extends through the front part of the casting to suitable distance, to carry the slide-piece back on coming in contact with the casting or draw-head of the approaching car, for dropping then the link. The coupling-pin D is suspended to the front arm of an angular frame, D', that slides in suitable guides of the platform or wall of the car, to be operated either directly or from the top of the car. A lateral piece, E, is supported on the front arm of frame D', and provided with guide-slots *d* for vertical rods *e*, which are pivoted at their upper ends to swinging lever-rods *f* of frame D', and at

their lower ends below the draw-head to a lateral rod, *g*, that is attached to the longitudinally-swinging arm F of a flat guide-spout, F'. Spiral springs *h* are applied to the connecting-rods *e*, between the lateral piece E and their upper ends, for the purpose of admitting the yielding of the spout without being injured or coming in contact with any rigid part. The arm F is hinged to the lateral rear piece B', and carries the spout up into inclined position along the lower part of the draw-head on raising the pin-supporting frame D'. The spout serves then for taking up the coupling-link of the approaching car, and for conveying it into the cavity of the draw-head simultaneously with the concussion and the carrying back of the slide-piece. The pin and pin-frame drop thereby, and carry the spout to some distance below the draw-head suspended on the spring-rods *e*, but out of the way of damage by the concussion of the draw-heads. The pin couples in dropping the link, and produces thereby the secure and automatic coupling of the cars.

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

The combination of lateral slotted front piece E of pin-suspending frame D', pivoted levers *f*, spring-acted connecting-rods *e*, bottom rod *g*, and pivoted spout-arm F, for raising and dropping the spout with the raising and dropping of the coupling-pin, substantially as and for the purpose set forth.

GEORGE W. KYLE.

Witnesses:

PETER KYLE,
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