M. KURTZEMAN.

Car-Coupling.

No. 160,779. Patented March 16, 1875.

Fig. I.

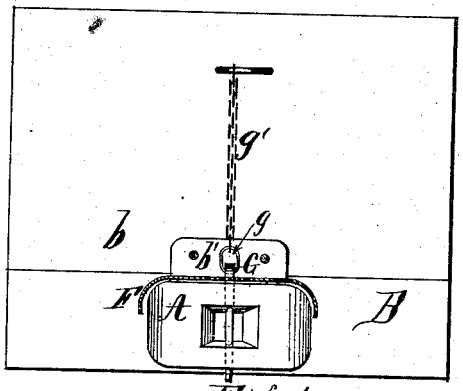


Fig. II.

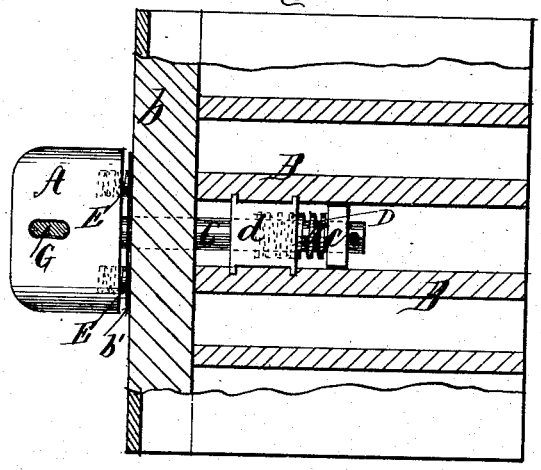


Fig. III.

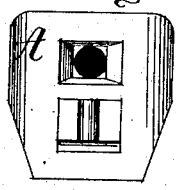
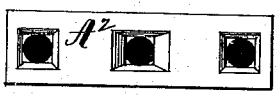


Fig. IV.



Witnesses:
Franklin Barrett.
Richard Gerner.

Inventor:
Martin Kurtzeman.
Per,
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Atty.

UNITED STATES PATENT OFFICE.

MARTIN KURTZEMAN, OF SHELBY, OHIO.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **160,779**, dated March 16, 1875; application filed August 24, 1874.

To all whom it may concern:

Be it known that I, MARTIN KURTZEMAN, of Shelby, in the county of Richland and State of Ohio, have invented a new and useful Improvement in Car-Couplings and Buffers; and I hereby declare the following to be a full and clear description of the same, which will enable others skilled in the art to make and use my improved couplings.

This invention relates to an improved construction of the draw-head, whereby recoil-springs are introduced between the draw-head proper and the front sill of the car, so as to receive concussion shocks, especially by collisions, and the draw-head is shielded and confined by guard-plates in such a manner as will more fully appear from the subjoined detailed description.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure I is a front elevation of a car-platform provided with one of the improved couplings and buffers. Fig. II is a plan of the same, with the platform of the car removed. Figs. III and IV are elevations of different forms of draw-heads, Fig. III showing arrangements for two elevations of the coupling-link, and Fig. IV showing three lateral adjustments of the said links, these modifications being necessary to couple cars of different heights and different widths.

The draw-head A is of cast-iron, as usual, and it is coupled back to the frame B of the car by one or more draw-bars, C, which pass through the front sill *b* of the car-frame, and thence back through the coil draw-spring D, and terminate in the pulling-block *c*. This pulling-block must necessarily be securely fixed to the draw-bar, as it has to sustain the entire tractional strain. The draw-spring D is confined within its case *d*, which is to be securely fixed to the frame-work B of the car, the traction strain being transmitted to the car through the spring-case *d*. Intervening between the draw-head A and the front sill *b* of the car I introduce a set of coiled buffer-springs, E, which springs receive the shocks of concussion, and are especially serviceable in cases of collision, for by their peculiar arrangement all danger of the telescoping is obviated. A face-plate, *b'*, is secured to the front face of the sill-piece *b*, to serve as a firm abutment for the springs E. A hood-piece, F, of cast or sheet metal, is attached to the front end of the car-platform, and forms a very essential feature of this invention. This hood-piece fits closely over the top of the draw-head, and prevents it from twisting or lateral displacement, especially in case of a collision, and so forms a strong and reliable shield and guard for the draw-head. This piece also prevents snow and ice from getting in between the draw-head and car-platform and interfering with the operation of the springs E. The pin G, by which the link (not shown) is secured in the draw-head, is oval in shape, and fits into a similarly-shaped hole in the draw-head.

By this arrangement the pin may be raised up to the top of the hole in the draw-head, and left standing there until the link to be coupled on is run into its place in the draw-head, when, if the pin is jerked round one-quarter turn, it will drop into its place.

On the top end of the pin G is a flat ring, *g*, into which a chain, *g'*, is attached, for securing the pin to the car to which it belongs. The ring *g* is made large and flat, and adjusted to stand parallel with the front end of the car when the pin is in place, so as to be readily accessible to throw the pin around into its place in the process of coupling, which is designed to be done with a coupling-hook by a person standing at the side of the car or on top of it, and not between the cars, as is now usually done.

A^1 and A^2 are variations in the form of the draw-head, which are designed for the accommodation of coupling cars of different heights or widths, or different gages.

Having thus described my invention, I desire to claim—

The combined coupling and buffer consisting of the draw-head A, the draw-bar C, draw-spring D, and buffer-springs E, as shown and described.

MARTIN KURTZEMAN.

Witnesses:

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