J. J. ANTHONY.
Car-Coupling.

No. 199,173. Patented Jan. 15, 1878.

Fig: 1.

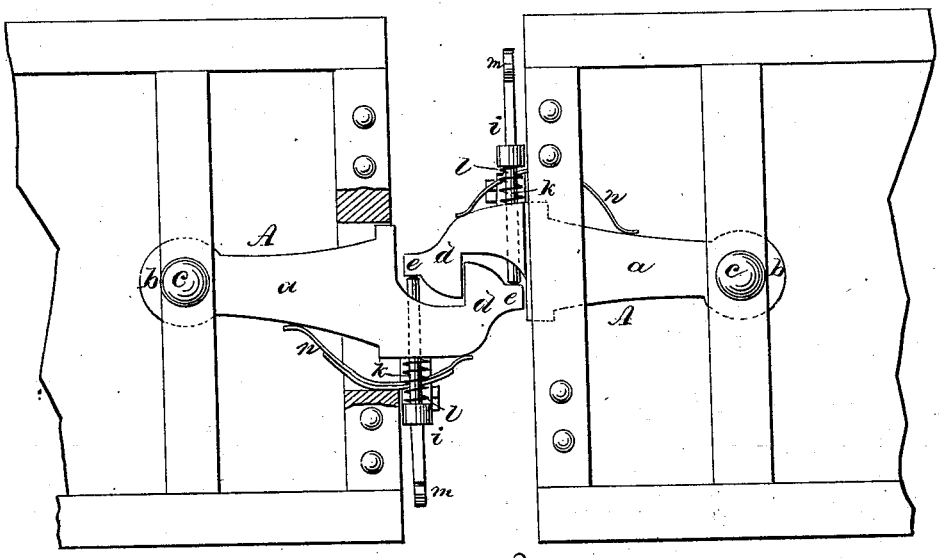



Fig: 2.

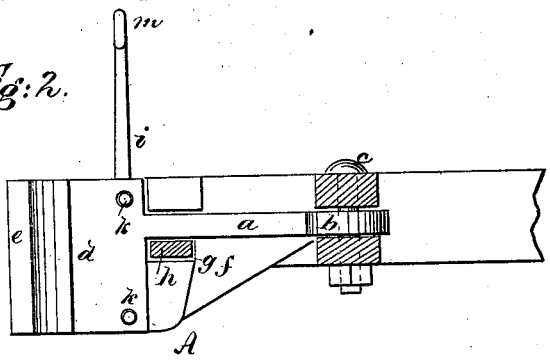
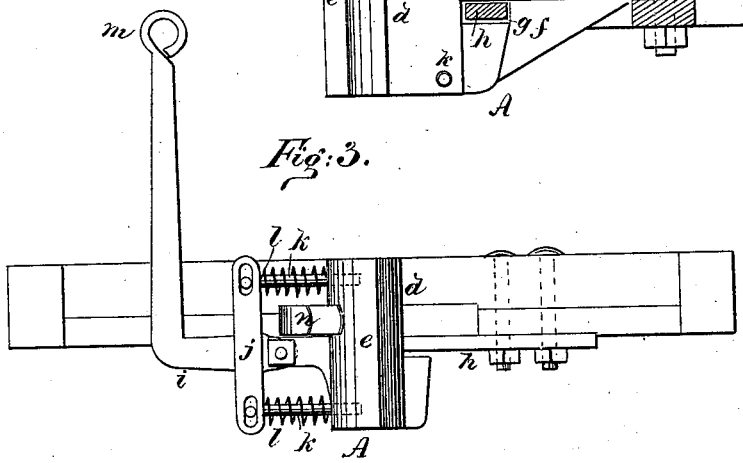



Fig: 3.

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# UNITED STATES PATENT OFFICE.

JACOB J. ANTHONY, OF SHARON SPRINGS, NEW YORK.

## IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **199,173**, dated January 15, 1878; application filed November 27, 1877.

*To all whom it may concern:*

Be it known that I, JACOB J. ANTHONY, of Sharon Springs, in the county of Schoharie and State of New York, have invented a new and Improved Car-Coupling, of which the following is a specification:

Figure 1 is a plan view of my improved car-coupling; Fig. 2, a side elevation of one of the coupling-hooks and section of platform. Fig. 3 is a front elevation of my improved car-coupler, showing its position on the car-platform.

Similar letters of reference indicate corresponding parts.

My invention relates to a combined coupler, draw-bar, and buffer, and it will be first described, and then pointed out in the claims.

Referring to the drawing, A is a draw-bar, having a flat tapering portion, *a*, terminating at its inner or attached end in the disk *b*, which is apertured to receive the bolt *c*, which also passes through the timber of the car-frame.

Upon the free end of the bar there is a hook, *d*, the vertical length of which is equal to the difference between the highest and lowest car-frame to which the couplings are applied. The rib of this hook is wholly upon one side of a line drawn centrally through the draw-bar, and upon the extremity of the hook there is a square vertical rib, *e*, which forms a buffer, and also a shoulder, which is engaged by the uncoupling device. The hook *d* projects downward, and is strengthened by a triangular brace, *f*, which extends along the under face of the part *a*, and overlaps the disk *b* a short distance.

There is an oblong aperture, *g*, in the brace *f* at the junction of the hook *d* with the part *a* for receiving a bar, *h*, which is bolted to the car-frame, forming a support for the draw-bar, and serving to prevent the twisting of the bar. It also affords additional safety, as it will hold the draw-bar and carry along the car in case the bolt *c* or inner end of the draw-bar should fail.

A right-angled lever, *i*, is pivoted to the back of the hook, and to it, near its fulcrum, a slotted cross-bar, *j*, is attached. Bolts *k* extend through holes in the hooks *d*, and are fastened at their outer ends and pivoted in the slots in the cross-bar *j*, the slots through which the pivots extend being widened to admit of the movement of the bolts in a right line.

Springs *l* are placed on the bolts *k*, and attached to the bolts near the bar *j* and to the back of the draw-bar. By moving the lever *i* in either direction on its pivot, one of bolts *k* is drawn out of the draw-bar, and the other is projected through, so as to engage the side of the rib *e*, and separate the two parts of the coupling by pushing the two hooks asunder. When the uncoupling device is not in use the springs *l* hold the bolts *k* in their normal position.

The upper end of the lever *i* has an eye, *m*, for receiving a long hook or rope for disengaging the coupling from the side of the car. The rope may extend to the engine-cab to enable the engineer to detach the train from the engine on seeing danger ahead, so that the engine may confront the danger alone, and thus save life and property.

The draw-bars are exactly alike for both ends of the car, and are forced into engagement with each other by semi-elliptical leaf-spring, *n*, placed at the back of each, and supported by the car-frame.

The hooks engage automatically when two cars are brought together, and the cars are uncoupled by the means already described.

The great vertical height of the hooks insures their engagement when two cars of different height are brought together. This feature renders the coupling applicable to freight-cars of every description. When so applied, the uncoupling-lever *i* may extend to the roof of the car, where the coupling can be easily operated by the brakeman.

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

1. A car-coupling having hook with rib *e*, in combination with slotted cross-bar *j*, bolt *k*, and spring *l*, as and for the purpose described.

2. The combination, with bar *h*, of the brace *f*, having hole *g* extending under part *a* and overlapping disk *b*, as and for the purpose specified.

3. The right-angled lever *i*, having attached to it the slotted cross-bar *j*, the bolts *k*, and springs *l*, in combination with the draw-bar A, substantially as herein shown and described.

JACOB J. ANTHONY.

Witnesses:
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