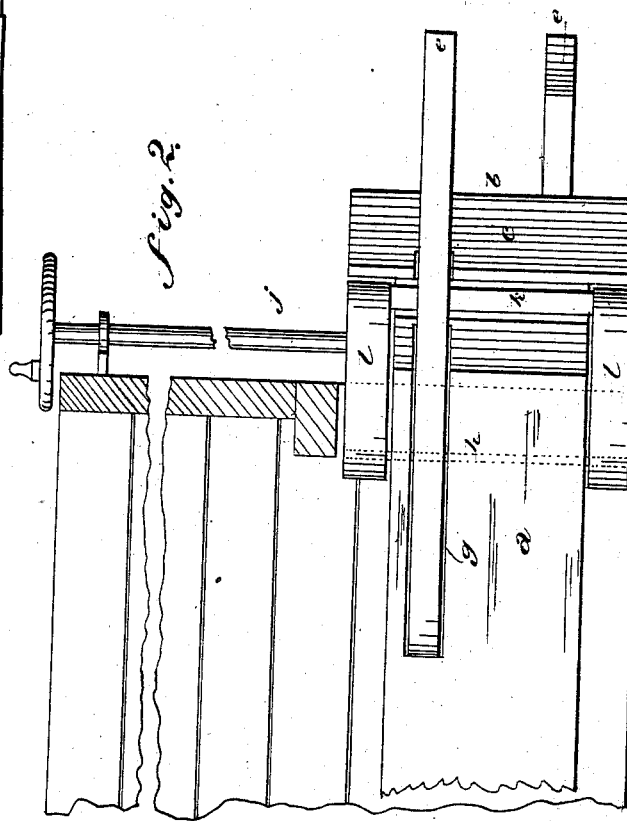
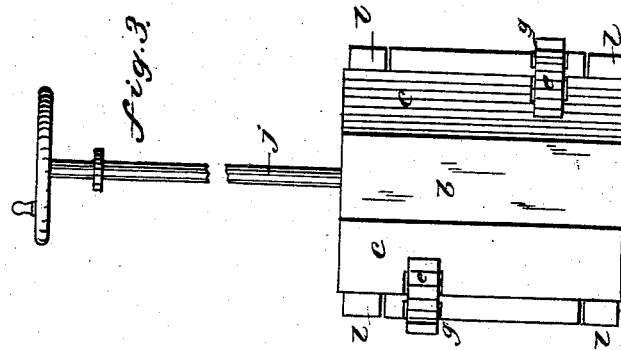
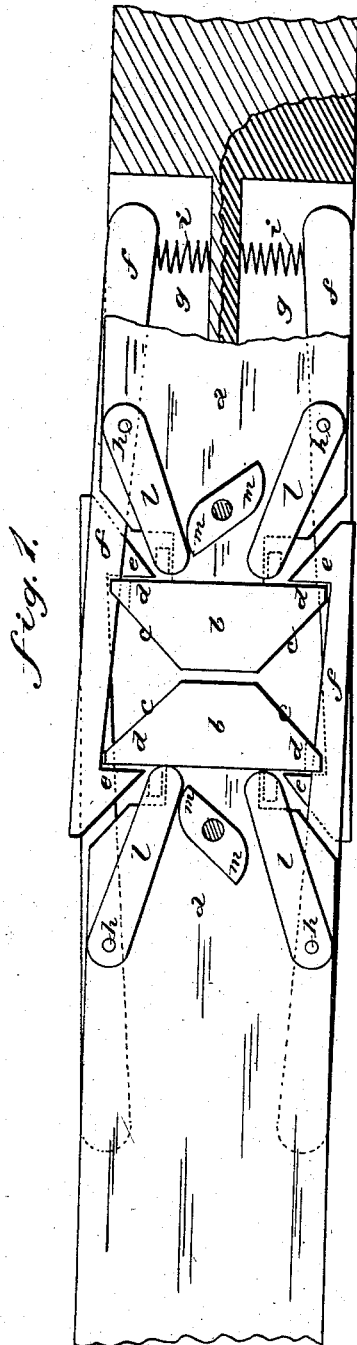


(No Model.)

D. W. DEAL.
CAR COUPLING.

No. 265,031.

Patented Sept. 26, 1882.



WITNESSES:

Chas. Zeyer
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BY

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UNITED STATES PATENT OFFICE.

DANIEL W. DEAL, OF TODDVILLE, IOWA, ASSIGNOR TO HIMSELF AND
JOSEPH VOWELS AND JOHN ALL, BOTH OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 265,031, dated September 26, 1882.

Application filed June 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, DANIEL W. DEAL, of Toddville, in the county of Linn and State of Iowa, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

In my improved car-coupling each draw-bar has a bevel-head with shoulders behind it for being engaged by bevel-ended hook-catches, of which two are attached to each draw-bar, so that when the draw-heads of two cars come together four hook-catches automatically engage with the shoulders of the heads, said catches being arranged on pivots and suitably provided with springs for enabling them to so engage, and each draw-bar is provided with means for disengaging the four catches, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved coupling with a part in horizontal section. Fig. 2 is a side elevation of one of the draw-bars and its attachments, and Fig. 3 is an end elevation of Fig. 2.

The draw-bars *a* are constructed with heads *b*, having both sides *c* beveled, and also having shoulders *d* on both sides, behind the bevel-faces *c*, for being engaged by the hook-catches *e*, of which each draw-bar is provided with two, the shanks *f* of said hooks being extended back along the draw-bars in grooves *g*, in which they are pivoted at *h*, so as to swing on said pivots to open for engaging and disengaging the heads, and they are provided with springs *i*, to cause the hooks to automatically engage the shoulders *d*. The hook of one side of the draw-bar is located near the top of the bar, and the other one is located near the bottom, so that the hooks of one car will match those of another in a manner whereby the hooks of both cars engage with the head of the draw-bar of the other car without interfering with each other. In order to detach the hooks of both cars by the uncoupling-shaft *j* of one car, the tripping-bars *k*, reaching from the bottom to the top of the draw-bars, are provided and connected to the arms *l*, located at top and bottom of said draw-bars, and arranged to swing on the pivots *h*, so that they

can be opened by cams or tappets *m*, mounted on said shaft at top and bottom of the draw-bar, whereby the trip-bars *k* of one draw-bar will detach all the hooks and uncouple the cars promptly by the turning of the shaft *j* in the manner of working the brakes. The shaft will extend to the top of a freight-car, where it will be provided with the usual pawl-and-ratchet arrangement for setting it to hold the hooks open when it is desired that they shall not hitch on the draw-heads.

In case the coupling is to be applied to passenger-cars the shaft *j* will be located at one side of the center and be geared with a short section in the draw-head carrying the tappets, as here shown.

The draw-heads contrived for this kind of coupling may also employ the ordinary link-and-pin coupling, when required, by having the link-sockets made in the ends of the heads, and also having the holes provided for the coupling-pins.

It will be seen that this improved coupling will be very strong and durable, besides being self-coupling.

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

1. In a car-coupling, the combination, with the draw-bar provided with a hook-sided head, of a pair of draw-hooks pivoted in the draw-bar, a pair of levers secured to said pivots, a bar attached to said levers, operating against similar draw-hooks of another car, and a cam and hand-rod to operate said levers, whereby the turning of said hand-rod and cam actuates said levers to release the hooks of both cars by one and the same movement from engagement with said hook-heads, as shown and described.

2. The combination, with the hook-heads *d*, draw-hook *e f*, pivots *h*, and levers *l*, secured thereto, of the springs *i*, operating both the hook *f* and its lever *l*, as shown and described.

3. The swing-arms *l* and trip-bars *k*, in combination with the hook-catches *e f*, said arms *l* being pivoted on the pivots *h* of the said hook-catches, substantially as described.

DANIEL W. DEAL.

Witnesses:

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WM. E. NEWMAN.