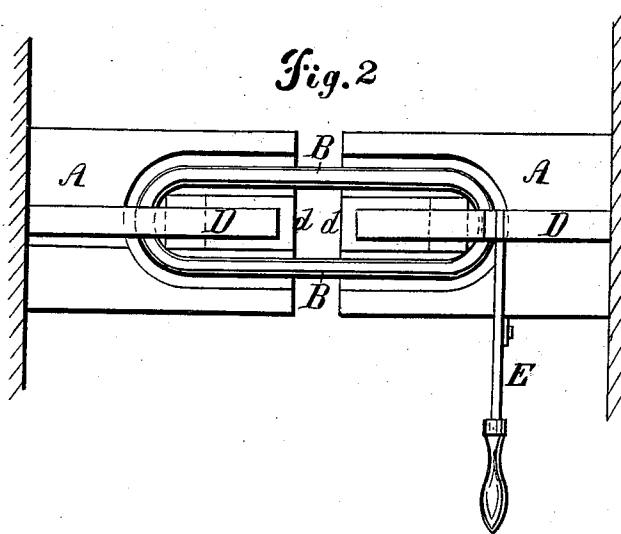
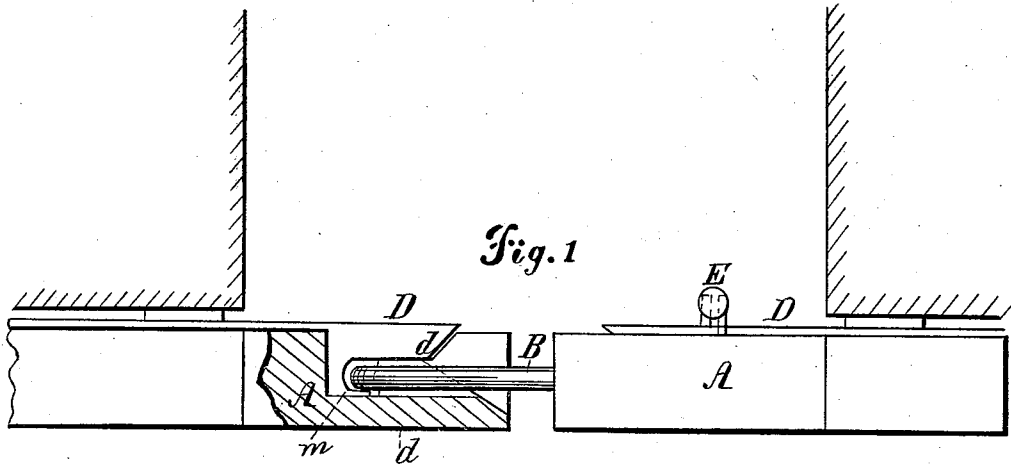


A. J. ELDER.
Car Coupling.

No. 83,052.

Patented Oct. 13, 1868.



Witnesses;
J. H. Ellsworth
F. C. Beach.

Inventor:
A. J. Elder.
By *[Signature]* Attys

United States Patent Office.

ALBERT J. ELDER, OF KANSAS CITY, MISSOURI.

Letters Patent No. 83,052, dated October 13, 1868.

IMPROVED AUTOMATIC CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, ALBERT J. ELDER, of Kansas City, in the county of Jackson, and State of Missouri, have invented a new and useful Improvement in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable others skilled in the art to which the invention appertains to fully understand and use it, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a plan view.

This invention has for its object, in addition to the connecting of cars, their uncoupling in a certain and efficient manner, in case one or more of the carriages of a train be thrown from the track, in order that the displaced car may not drag the others after it.

To this end, the invention consists in making the draw-heads open at the top, so that the connecting-link may be easily displaced in case of accident, and providing each draw-head with a tooth, the front side of which is inclined, so as to allow the link to run up easily on it during the process of coupling, while the rear side, which is vertical, so as to oppose no resistance to an upward movement of the link, holds it firmly against the ordinary longitudinal pull. Also, in attaching to the upper side of each draw-head a spring-bar, with a hook on its free end that projects over upon the aforesaid tooth, and covers the end of the link when in place, the effect of the whole arrangement being such, that when one draw-head is elevated, as in case of accident, the front part of such draw-head shall operate to raise the link out of place, and disconnect the cars.

In the drawings, A A represent two draw-heads, each provided with a suitable recess for the accommodation of the link B, such recesses being entirely open at the top, and inclined upward and backward at their lower front parts, to allow the link to enter. Each draw-head is provided with a tooth, *a*, inclined in the same plane with the draw-head on its front side, and

with a vertical rear side, between which tooth and the end of the recess A rests the end of the link. Each draw-head is also provided with a spring-bar, D, screwed or otherwise attached to its upper side, and provided at its free end, which projects over upon the tooth *a*, with a head, *d*, which projects over upon the tooth *a*, having an inclined under side, and with a hook, *m*, which catches under the link, as shown in fig. 1, and serves to lift the latter and uncouple the cars whenever the forward end of the spring-bar is raised by the operation of the lever E, pivoted at the side of the draw-head. The link slips easily between the tooth *a* and the bevelled head *d*, and lies in the recess in the part A.

From the foregoing description it will be perceived that if, in case of the displacement of one of the cars of a train, one of the draw-heads be suddenly elevated, its front side will act against the under part of the link, to raise it out of place and disconnect the cars.

The device is exceedingly simple, and, it is believed, very efficient. The spring-bars prevent the link from jumping out during motions of the train, but interpose no effectual obstacle to its removal against so severe a strain as is brought to bear upon it by the displacement of a car.

I am aware that M. Disney has heretofore used a spring-bar, somewhat similar to mine, upon a draw-head patented by him, but his device is destitute of the hook, and the top of the draw-head is closed, so that his invention is wholly unlike mine in principle and operation. I do not claim his device; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The spring-bar D, when provided with the hook *m*, and arranged in the open draw-head A, to operate in connection with the tooth *a*, in the manner and for the purpose specified.

ALBERT J. ELDER.

Witnesses:

JAMES H. GRIDLEY,
JAS. H. SYPHERD.