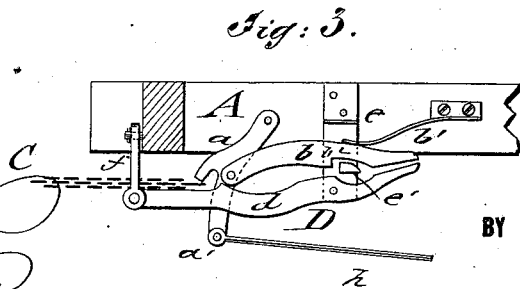
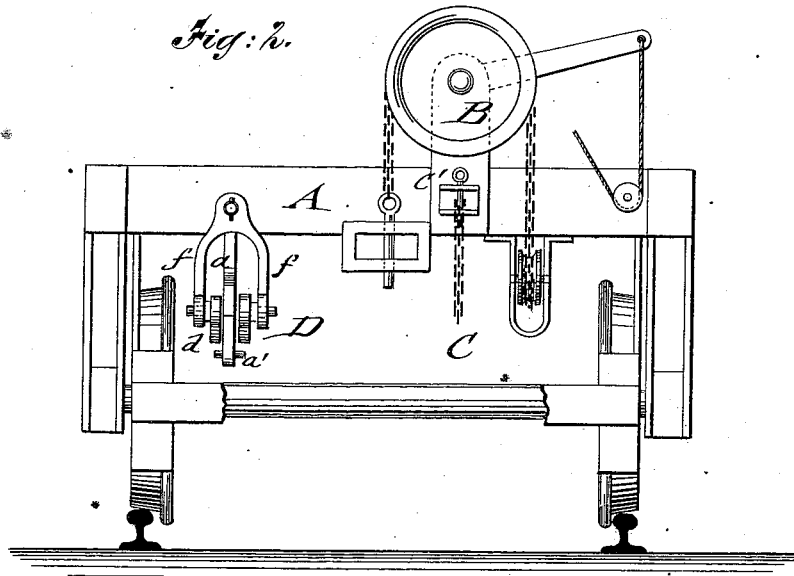
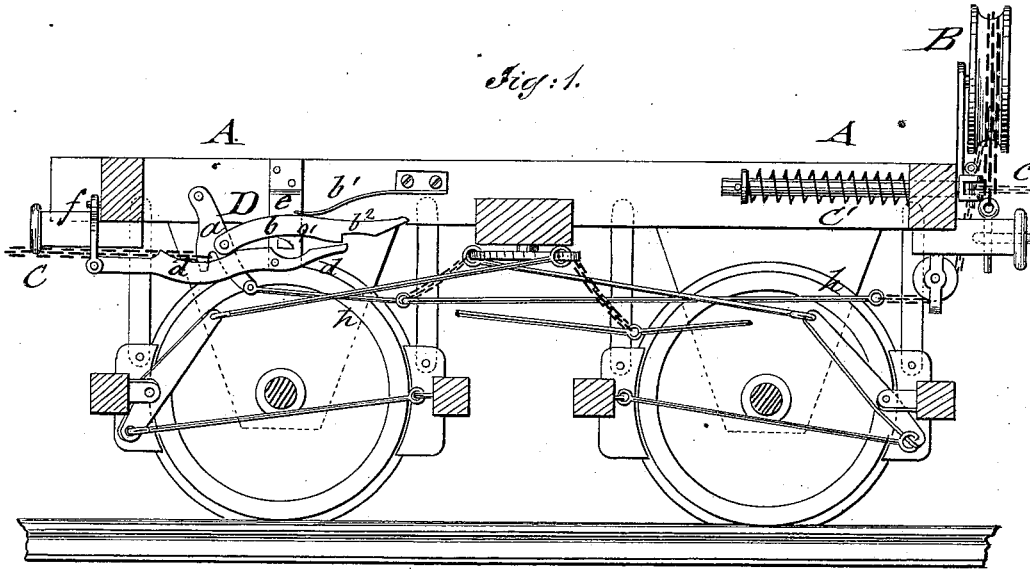


S. GILZINGER.
Car-Brake.

No. 161,946.

Patented April 13, 1875.



WITNESSES:
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SEBASTIAN GILZINGER, OF GLASCO, ASSIGNOR TO HIMSELF AND ABEL
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IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **161,946**, dated April 13, 1875; application filed
February 20, 1875.

To all whom it may concern:

Be it known that I, SEBASTIAN GILZINGER, of Glasco, Ulster county, New York, have invented a new and Improved Automatic Uncoupler and Brake, of which the following is a specification:

Figure 1 represents a vertical longitudinal section of my improved uncoupling and brake mechanism for railroad-cars. Fig. 2 is an end view of the same applied to each end of the car; and Fig. 3 is a detail side view of the detaching mechanism of the uncoupler.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claims.

In the drawing, A represents a car-frame of the usual construction, which is provided with the common pin and link coupling, or any other coupling device. In connection with the coupling is arranged at each end of the car, on the platform or top of the same, a wheel and lever mechanism, B, that is connected at one end to the coupling-pin, or other special uncoupling mechanism, while the other end may be placed in connection with the bell-rope of the locomotive, which rope has to pass over a pulley below the lever B, so as to actuate the same from the locomotive for uncoupling the draw-heads whenever required in case of danger or accident.

The bell-rope has to be applied for the working of my mechanism to the front lever of the last car; but my uncoupler may be operated also directly by the conductor or automatically by the accidental detaching of any car, so that a whole train can be brought wholly within control from any part thereof.

Each end of the car is furthermore connected to the end of the adjoining car by loose chains C, which are attached to spring-cushioned eyebolts C', or otherwise applied thereto, and locked into a detaching mechanism, D, applied to each end of the car.

The detaching mechanism D is the main part of my invention, and consists of a swinging hook-piece, *a*, pivoted to the bottom frame A; next, of a sliding locking-link, *b*, pivoted

to hook-piece *a*, and of a main link, *d*, that is fulcrumed to a standard or arm, *e*, of the car, back of hook-piece *a*, and so arranged that the hook-piece can slide readily forward and backward therein.

A cross-pin, *a'*, at the lower end of the hook-piece *a*, defines the extent of the swinging motion of the same by contact with the link *d*, and supports also the link thereon when the front part, which is provided with a pivoted bail or hanger, *f*, is released from the car.

The connecting-chain C is passed through the bail *f*, and hung to the hook part of piece *a*, which is then thrown back so as to be retained by the lock-eye, formed by the hook, in connection with the curved part of link *d*, back of its shoulder or upward-projecting part *d'*.

The locking-link *b* is forced in downward direction by a suitable spring, *b*¹, and locks by a recess and shoulder, *b*², on the stop or cam *e'* of arm *e* when the hook-piece is carried far enough in forward direction.

The rear part of the fulcrumed bail-link *d* comes by being swung down, on the detaching of the front bail, in contact with the rear part of locking-link *b*, so as to raise the same for the purpose of reattaching the chain and placing the detaching mechanism in working order.

The lower end of the hook-piece *b* connects with the brake attachment of the car, and, by longitudinal connecting rod or chain *h*, with the lever B, at the opposite end of the car. As soon, therefore, as the car is uncoupled, the strain on the loose connecting-chains carries the hook-pieces of the detaching mechanism forward, so as to separate the car, applying at the same time the brakes permanently by seating the locking-link on the cam, and uncoupling the next car by the bottom connecting-chains and uncoupling lever mechanism at the other end. This produces the same effect on the next car, and so on throughout the train on all cars in front of the one uncoupled. Thus the uncoupling and braking of the cars in consecutive order is accom-

plished in a perfectly reliable and automatic manner.

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

1. The combination of the recessed locking rear link, spring, stop on the supporting-standard, brakes, and fulcrumed main link, substantially as and for the purposes set forth.

2. The detaching and braking mechanism *a, b, b¹, b², d, e, e', and f*, and connecting-chains, in combination with the car-brakes for applying the same on the separation of cars, substantially as set forth.

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Witnesses:

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