L. FLECKENSTEIN.

CAR-COUPLING.

No. 182,911. Patented Oct. 3, 1876.

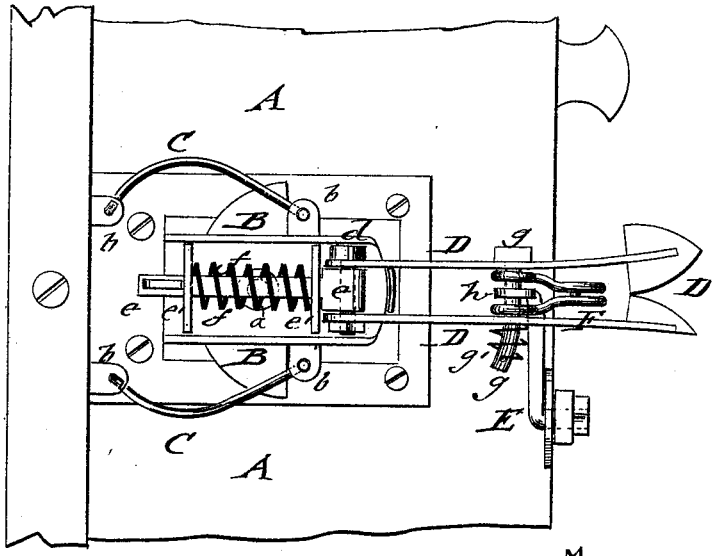


Fig: 1.

Fig: 2.

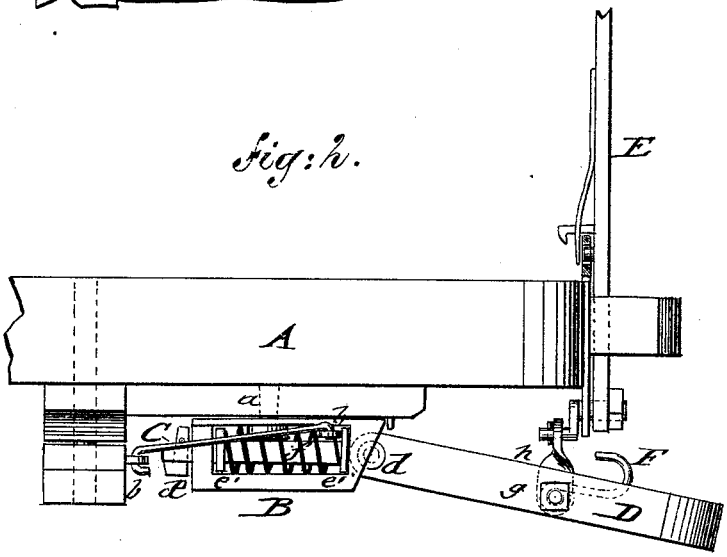
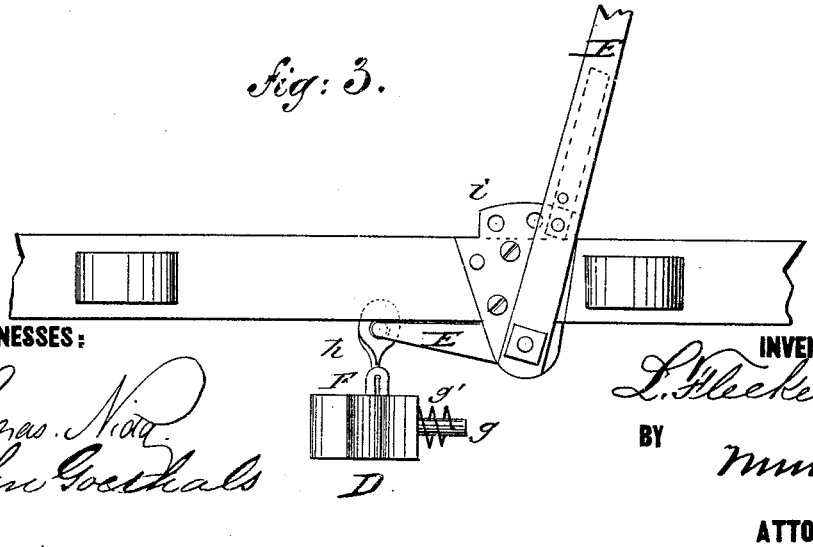


Fig: 3.



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UNITED STATES PATENT OFFICE.

LEONARD FLECKENSTEIN, OF CRESWELL, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND MARTIN MILLER, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **182,911**, dated October 3, 1876; application filed May 22, 1876.

To all whom it may concern:

Be it known that I, LEONARD FLECKENSTEIN, of Creswell, in the county of Lancaster and State of Pennsylvania, have invented a new and Improved Car-Coupling, of which the following is a specification:

The invention relates to improvements in the automatic car-coupling for which Letters Patent have been granted to me heretofore, No. 153,938, so that the working of the same is facilitated, it being adjusted for cars of different height, and always kept in the center to interlock perfectly square on curves.

The invention will first be described in connection with drawing, and then pointed out in the claim.

In the accompanying drawing, Figure 1 represents a bottom view, Fig. 2 a side elevation, and Fig. 3 a front view, of my improved car-coupling.

Similar letters of reference indicate corresponding parts.

A represents the car-frame, to which the coupling-hooks D are applied by a swinging plate, B, which is connected to the under side of the car-frame by a strong pivot-bolt, *a*. The swinging plate B is further connected to the truck-frame by rods C, that are pivoted to fixed lugs or ears *b* of plate B and of the truck-frame. The connection with the truck-frame serves to keep the coupling in the center, so as to produce a square interlocking and meeting of the coupling-hooks on curves, preventing thereby any possibility of their getting accidentally detached on turning curves.

The spring-hooks D are pivoted to a lateral bolt, *d*, so as to swing in vertical direction, bolt *d* being supported by a longitudinally-sliding bar, *e*, that is guided by cross-plates *e'* in swinging plate B, and cushioned by a strong spiral spring, *f*, placed intermediately between the cross-plates. The spiral spring *f* gives the spring-hooks an opportunity to move backward and forward and to obviate the rigid action of the coupling-hooks when hung to a stationary point of support. The shocks and strains incident to the coupling and interlocking of the hooks are thereby taken up and neutralized by the cushioning-spring.

The coupling-spring hooks D are made of separate spring-bars, with arrow-shaped heads, which bars are connected about midway between pivot-bolt and heads by a curved bolt, *g*, with a fixed spiral spring, *g'*, that secures the closing of the heads after being spread by the entering of the interlocking spring-hook of the adjoining car.

A link, *h*, and hook F are pivoted to the connecting-bolt *g*, the link to connect with the end of an elbow-lever, E, that is fulcrumed to the end of the car-frame, and locked in position by means of a spring-pin entering perforations of a lock-plate, *i*. The fulcrumed elbow-lever E serves to raise or lower the spring-hooks from the platform side or top of the car, so as to adjust the same exactly to the coupling-hooks of cars having platforms of different heights. The pivot-hook F back of the heads of the coupling-spring hooks serves to couple with cars having the common link-and-pin coupling, the link being hung to the hook F and supported on the heads of the spring-hooks.

The uncoupling of the spring-hooks is accomplished by raising or lowering the same by the fulcrumed levers, the spring-hooks being also uncoupled in case of accidents by the change of angle of the interlocking arrow-heads toward each other.

The spring-hooks couple readily when hung to the required height, and are applied to the car-frame by the swinging plate and cushioned bar with the same degree of flexibility and adjustability as the common draw-bars in general use.

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

The combination, with hooks D, of curved bolt *g*, spring *g'*, hook F, and lever E, all arranged substantially as and for the purpose specified.

LEONARD FLECKENSTEIN.

Witnesses:
W. B. WILEY,
J. B. DEVELIN.