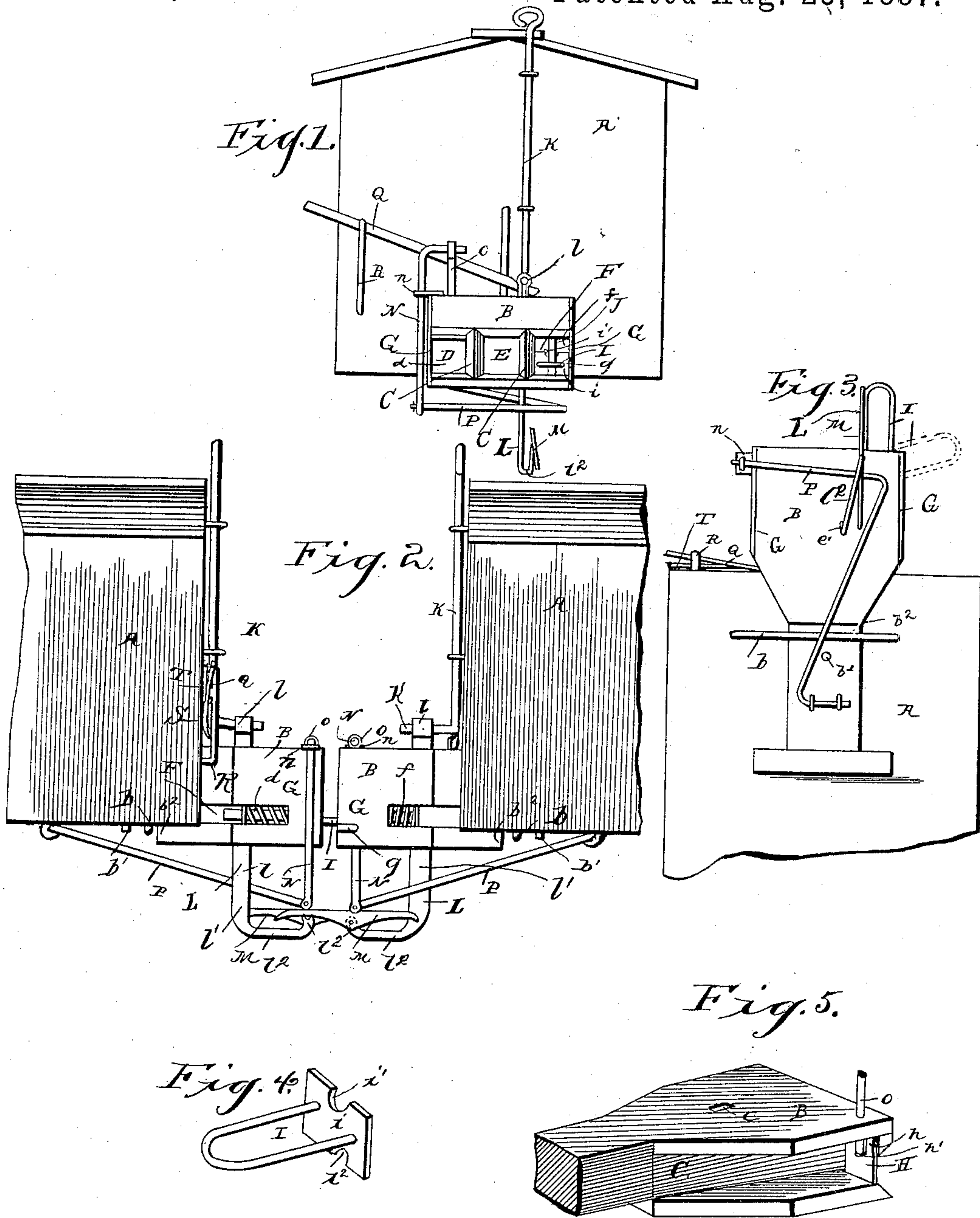


(No Model.)

J. A. FOUTS.
CAR COUPLING.

No. 368,709.

Patented Aug. 23, 1887.



Witnesses

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JAMES A. FOUTS, OF OTTAWA, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 368,709, dated August 23, 1887.

Application filed April 18, 1887. Serial No. 235,250. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. FOUTS, a citizen of the United States, residing at Ottawa, in the county of Franklin and State of Kansas, have invented a new and useful Improvement in Automatic Car-Couplings, of which the following is a specification.

My invention is an improved car-coupling; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an end view of a car provided with my improved coupling, and Fig. 2 is a side elevation showing two cars coupled together. Fig. 3 is a bottom plan view, and Fig. 4 is a detail perspective view, of one of the links. Fig. 5 is a detail view showing a modified form.

Referring to the drawings by letter, A designates the body of a car provided with my improved coupling. B is the draw-head secured thereto in any desired manner and limited in its longitudinal play by means of a rod, *b*, contacting with a pin or stop, *b'*, and shoulder *b*² on the under side of the draw-head. The forward or main body portion of the draw-head is divided by longitudinal partitions C into three chambers, D E F, and the middle one of these chambers, E, is provided in the top and bottom of the draw-head with the longitudinal slots *e e'*, the purpose of which will hereinafter appear. When it is desired to use the ordinary pin-and-link coupling, this middle chamber, E, is provided with suitable pin-holes and the pin and link secured therein, as will be readily understood. The side chambers, D F, as will be readily seen from the drawings, are formed in the sides of the draw-head, and their outer sides are open. In these chambers I provide the spring-actuated plungers *d f*, which are held in said chambers by the plates G, secured to the sides of the draw-head. The plungers *d* serve as pin-supports, and a pivoted block may be substituted therefor, if so desired. In Fig. 5 I have shown such a block, consisting of the lower heavy portion, H, the upwardly-projecting ears *h*, by which it is pivoted within the draw-head, and the rearwardly-projecting lug or shelf *h'*, on which the pin rests. The plunger *f* in the chamber F serves to hold the link in the front end of the draw-head, and prevents its being

shoved back into the draw-head, so as to prevent the coupling of the cars.

The link I is secured at one end to a flat base-plate, *i*, which rests against the forward end of the plunger and receives the pressure therefrom. In order to prevent the link being thrown entirely out of the draw-head, I provide the vertical pin J, which is secured in the chamber F, in front of the plunger *f*, and passes through the link. The base-plate *i* of the link is provided in its upper and lower edges with the central notches, *i' i*², which allow the link to oscillate in a vertical plane, so as to enter draw-heads on cars of different heights by fitting around the pin J as the link oscillates. The plate G, at the side of the chamber F, is provided with a horizontal notch, *g*, in its front edge. This notch permits of the link being turned sidewise, as shown in dotted lines in Fig. 3, when the ordinary pin-and-link coupling is used.

K designates a rod held in bearings on the end of the car and sliding vertically in said bearings. This rod extends to the top of the car, and is provided at its lower end with the integral forwardly-projecting arm *k*. The forwardly-projecting arm *k* passes through a loop, *l*, on the upper end of a lifting-bar, L. This lifting-bar L consists of the vertical arm *l'*, which passes through the slots *e e'* of the draw-head, and has the loop *l* at its upper end, and the horizontal arm *l*², formed integral with the lower end of the arm *l'* and projecting forwardly therefrom. The front end of this arm *l*² is turned vertically upward a short distance, and a lever, M, is secured thereto.

N is a rod which has one end passed through the upper end of the coupling-pin O, and thence extends down along the side of the draw-head through a guide, *n*, secured to the draw-head. The lower end of this rod N is below the draw-head and is connected to a bar, P, which extends across the under side of the draw-head and then back, its rear end being pivotally secured to the under side of the draw-head. The lever M extends under the bar P, and when the lifting-bar L is raised contacts thereagainst, and the said lever M extends from the said lifting-bar in both directions, so that when two draw-heads are coupled together it will extend under both of them.

Q is an operating-lever pivoted to the end of the car and having its inner end extending under the arm *k* and its outer end working in a keeper, R. An offset, S, on the end of the car is engaged by a spring, T, on the rear side of the lever Q, so that when the said lever is depressed the device may be held against coupling again, if so desired.

The operation of my coupling will be readily understood. When uncoupled, the pins are held up by the plungers *d*. When the cars are being coupled, the links entering the draw-heads force the plungers from under the pins, which thereupon fall through the links. When it is desired to uncouple the cars, the lifting-bar L is raised by means of the lever Q or rod K, and the pins are thereby released from the links through the medium of the rod N and bar P, acted upon by the lever M.

It will be observed that my coupling is double, and that all the parts are simple in construction, while the entire device is free of complicated combinations and arrangements.

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

1. A link for car-couplings, having the base-plate provided with the notches *i'* *i''* in its edges, substantially as and for the purposes set forth.

2. The combination, with the draw-head having the chamber F, and the plate G, secured to the draw-head, and having the notch *g* in its forward edge, of the link held in said chamber and adapted to be turned to enter said notch, substantially as set forth.

3. The combination, with the draw-head and the coupling-pin, of the lifting-bar extending through the draw-head, rods connected to the pin and acted upon by the lifting-bar, and means for raising said lifting-bar, substantially as described.

4. The combination, with the draw-head and the coupling-pin, of the rod N, connected to the pin, the bar P, connected to the rod N and having its rear end pivoted to the under side of the draw-head, the lifting-bar passing through the draw-head and carrying the lever M, adapted to contact with the bar P, and means for raising said lifting-bar, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES A. FOUTS.

Witnesses:

HORACE J. SMITH,
C. C. MINTON.