(No Model.)

W. R. CHADSEY.

CAR COUPLING.

No. 384,018. Patented June 5, 1888.

Fig. 1.

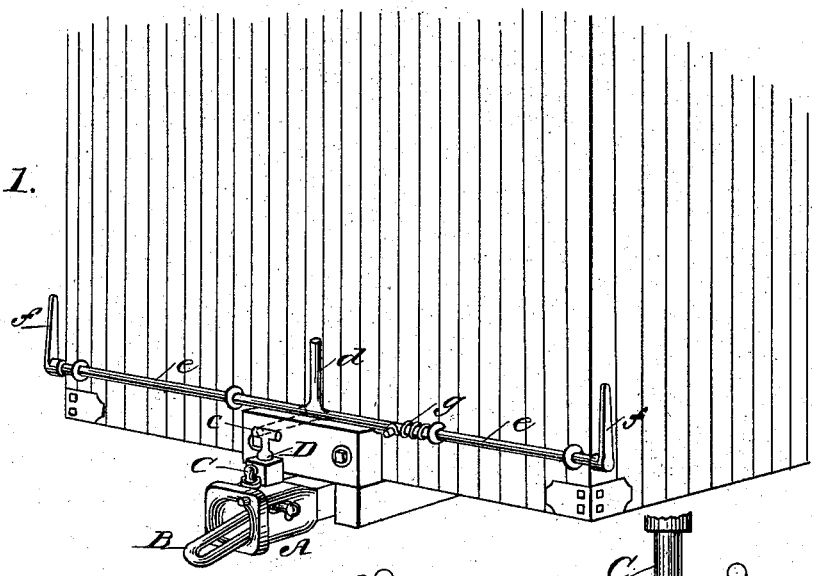


Fig. 2.

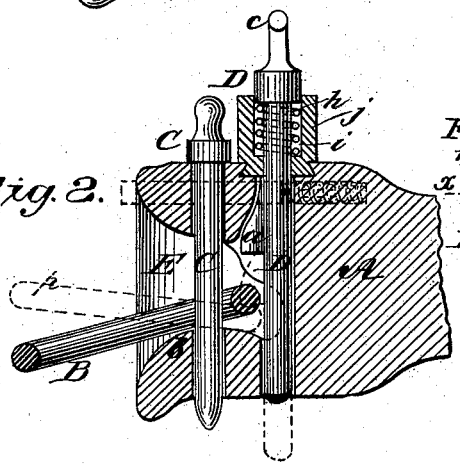


Fig. 4.

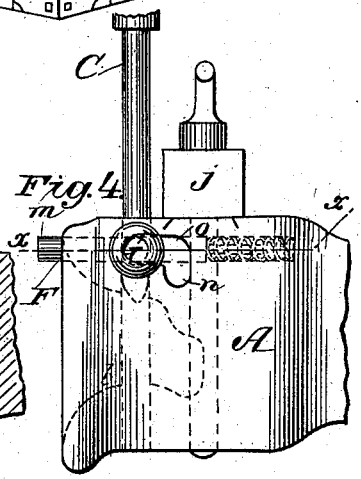
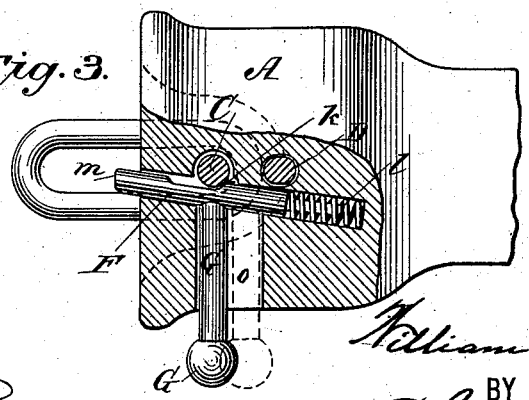


Fig. 3.



WITNESSES.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 384,018, dated June 5, 1888.

Application filed December 22, 1887. Serial No. 258,663. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. CHADSEY, a citizen of the United States, residing at the city of Chicago, county of Cook, State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to link-couplings for railway-trains; and it consists of certain novel devices for lifting the engaging end of the link preparatory to coupling, and of a device for retaining the link-pin of the engaging coupler in a raised position to be subsequently dropped automatically at the movement of contact of the buffers.

In order to enable others skilled in the art to which my invention appertains to understand and use the same, I will proceed to describe its construction in detail, explain its operation, and point out in the appended claims its novel characteristics.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts, Figure 1 is a perspective view of the device and operating appliances attached to the end of a car; Fig. 2, a longitudinal section of the coupler; Fig. 3, a horizontal section on the line *x x* of Fig. 1, and Fig. 4 a partial side view of coupler.

A is the draw-head attached beneath the car with the usual buffer-spring attachments, B the link, and C the link-pin, of ordinary pattern.

D, Fig. 2, is a spur-pin provided with a forwardly-projecting spur, *a*, whereby a movement of depression will engage with and depress the inner end of the link B, raising the outer end thereof, the said link bearing or fulcruming over the shoulder *b*, formed by the contour of the lower surface in the socket E of the draw-head, and being thereby brought to the necessary position for engagement with the opposite draw-head socket in the act of coupling. The pin D is depressed by pressure applied at its top *c*, which may be done by direct application of the hand or by the arm *d* of the operating-shaft *e*, which latter is operated from the side of the car by the levers *f*, to obviate the necessity of the operator going between the cars to perform the act of coupling. The shaft *e* is normally held in the position shown by a spiral or other spring, as *g*, or may be permitted to rest with its arm *d* upon the pin D. The pin D is returned to its normal raised position by a spiral compression-spring, *h*, in the socket *i*. The casting *j*, containing the socket *i*, is removable from the casting A, being dovetailed thereto, as shown.

The link-pin C is when raised, as shown in Fig. 4, retained by pressure thereon by the shoulder *k* of the buffer-pin F, Fig. 3, the same being normally forced outward by the spring *l*. The buffer-pin F is thrust back to release and drop the link-pin when the abutment of an opposite coupler takes place upon the projecting end *m* of said pin.

The pin F is inclined at a slight angle to clear the pin D, but to permit its line of position to partly intersect the hole of pin C at a right angle thereto. The pin F is also operated to release the link-pin by the handle G, and the latter is adapted, by dropping into the offset portion *n* of the slot *o*, to retain the pin F in its withdrawn position until again applied by lifting the handle G.

In operation the coupler A without the link has its link-pin C raised, as in Fig. 4, and retained by pin F. The coupler A with the link (having the link-pin C engaged) has its link-raising pin D depressed as the cars approach, the operator effecting this by one of the levers *f*, and bringing the link to its necessary position of elevation, as at *p*, Fig. 2, for engagement with the opposite coupler, according as the relative height of the latter may vary. The abutment of the couplers now thrusts the pin F of the first-named coupler inward, dropping the opposite link-pin in and securing the link.

It will be observed that the herein-described construction is made conformable with strength and solidity of the essential parts, not requiring cumbersome dimensions of the latter, and the extra space occupied is reduced to the minimum as consistent with necessary durability of the additional devices.

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

1. In a car-coupling, the combination, with

the link spur-pin, of the returning-spring *h*, adapted to lift and maintain said pin at its normal position, as described.

2. In a car-coupling, the buffer-pin F, located transversely to the link-pin, engaging thereon by a shoulder, as *k*, and adapted to a longitudinal release action by abutment of its extending portion upon an opposite car-buffer, as and for the purposes described.

3. In a car-coupling, the combination, with the buffer-pin F, having the link-pin shoulder *k*, of its actuating-spring, as *l*, and the handle G, operating in the L-shaped slot, adapted to retain said pin F in its withdrawn position as against said spring.

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