(No Model.)

W. HERRICK.

CAR COUPLING.

No. 480,092. Patented Aug. 2, 1892.

Fig. 1.

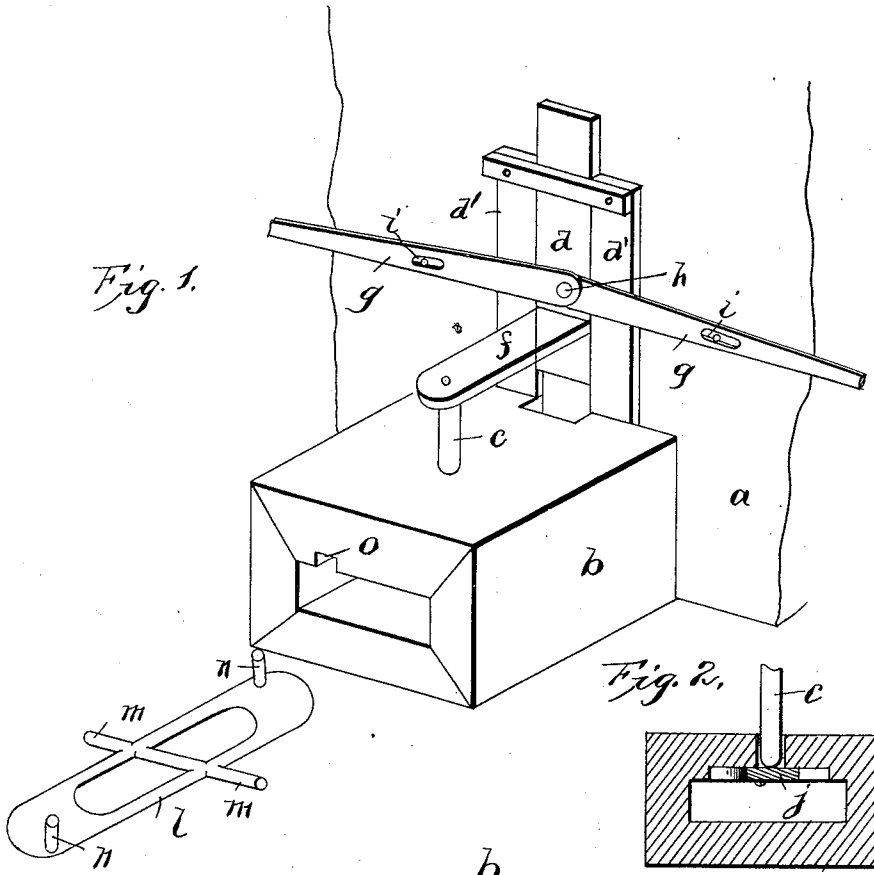
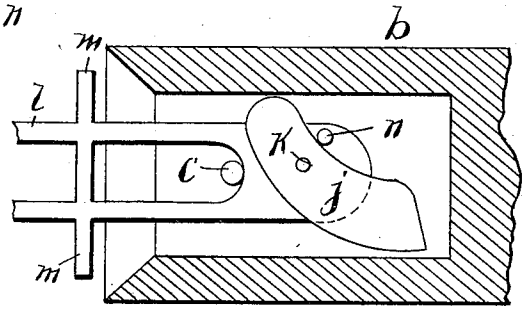


Fig. 2.

Fig. 3.



WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 480,092, dated August 2, 1892.

Application filed October 28, 1891. Serial No. 410,098. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HERRICK, of Russell, in the county of Lyon and State of Minnesota, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in car-couplers; and it consists in certain novel features of construction and in combinations of parts more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective showing the car-coupler and portion of the car, the coupling-link being shown withdrawn ready to enter the coupling-head. Fig. 2 is a cross-section of the head. Fig. 3 is a longitudinal horizontal section showing the link holding the cam.

In the drawings reference-letter *a* indicates the portion of the car shown. *b* indicates the coupling-head suitably attached thereto. This coupling-head is hollow and open at the end, and has the pin-hole through its upper portion, as usual.

c indicates the coupling-pin.

A vertically-movable plate *d* is confined between suitable guides *d'* at the end of the car above the coupling-head, and this plate is provided with the forwardly-extending arm *f*, to the outer end of which the coupling-pin is loosely joined. Two vertical swinging levers *g* are fulcrumed at the end of the car, so that their handles extend toward the opposite sides thereof, and the inner ends of these levers are pivotally joined to said vertically-movable plate at *h*, so that when the handle end of either lever is depressed the plate will be raised, thereby raising the coupling-pin and releasing the link, the sliding plate and coupling-pin returning to their normal position by gravity. These levers have elongated slots *i* at their fulcrum-points to permit play as the sliding plate reciprocates. The interior of the coupling-head is provided with a pin-holding device located at the inner end of the pin-hole, consisting of the horizontally-swinging cam *j*, located in a recess in the upper wall of the coupling-head chamber, so that its outer end can swing beneath and from under the lower end of the pin-hole. This cam is fulcrumed at *k*, and the inner end of the cam is bent laterally and the outer end of the cam is bent laterally in the same direction and is rounded at its outer end.

The coupling-link *l* is preferably formed flat with the central opening, and the laterally-projecting stop-lugs *m* on each side of the center to engage the outer end of the coupling-head and limit the entrance of the coupling-link into the coupling-head. The coupling link on one side of each end is provided with the upwardly-extending lug *n*, so located on the coupling-link that when said link is thrust into the coupling-head said lug *n* will move in through groove *o* on the same side of the coupling-head as the laterally-bent portions of the pin-holding cam, and will engage the inner laterally-bent end of said pin-holding cam and will thereby throw the outer end of said pin-holding cam laterally from beneath the lower end of the pin-hole, and thereby allow the pin to drop into coupling or locking position, extending through the coupling-link, thereby effecting the coupling. When the pin is raised by suitable means, such as before described, and the link is drawn out, its lug *n* engages the laterally-bent front end of the pin-holding cam and throws said cam laterally beneath the pin-hole, so as to support the pin in position to be automatically dropped when the link again enters the coupling-head.

From the drawings and the foregoing description the great simplicity and utility and improved automatic action of this coupling are obvious. The railroad employés need not endanger their lives, as is the case where the ordinary link-and-pin or other non-automatic couplings are employed.

It is evident that various changes might be resorted to in the form, arrangement, and construction of the parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the construction herein set forth; but

What I claim is—

1. In a link-and-pin car-coupling, the combination, with the coupling-head, of a horizontally-swinging pin-holding cam pivoted to the upper face of the head-opening, so as to swing from and beneath the pin-opening, said cam being so shaped as to be swung in opposite directions by a lug or portion of the link, substantially as described.

2. The link-and-pin coupling-head, in combination with the horizontal cam pivoted between its ends in the top of the interior of the head and arranged and constructed substantially as described, and a link having a projection arranged so that when the link enters the head it will engage the cam and swing it from beneath the link-hole and when the link moves out of the head it will engage said cam and swing it beneath said hole, substantially as set forth.

3. In a car-coupler, the combination of the coupling-head, the coupling-pin, and the swinging cam within the head, arranged to hold and automatically drop said pin, and the coupling-link having the central lateral stops and the projections at its ends, said cam being so constructed as to be operated by the in-and-out movement of the said projection and the coupling-link, as set forth.

4. The coupling-head having the cam provided with curved edges and pivoted between its ends to the top of the interior of the head, so as to rest above the link, and a link having a portion adapted to engage said cam when it leaves and enters the head, and thereby swing the link in opposite directions, as described.

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

WILLIAM HERRICK.

Witnesses:
H. A. BARNES,
E. D. ALLISON.