

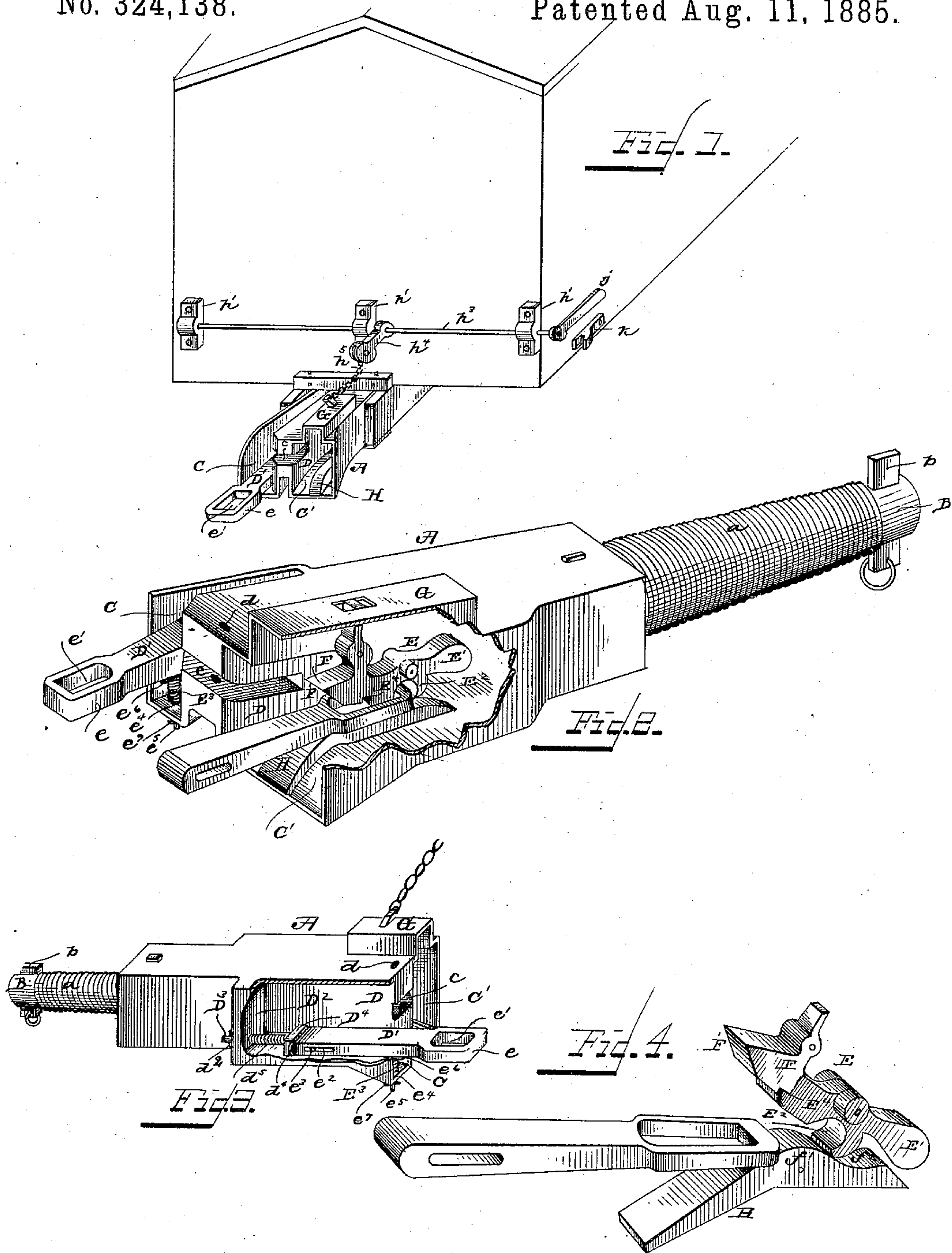
(No Model.)

J. MCGEE.

CAR COUPLING.

No. 324,138.

Patented Aug. 11, 1885.



WITNESSES

WITNESSES
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JOHN MCGEHEE, OF SHAWNEETOWN, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 324,138, dated August 11, 1885.

Application filed March 3, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN MCGEHEE, a citizen of the United States, residing at Shawneetown, in the county of Gallatin and State of Illinois, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to car-couplings; and it has for its object to provide a car-coupling which shall be automatic in its action, one that may be used with different heights of cars, and one that will be positive and effective in operation.

With these ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a car-coupling embodying my invention. Fig. 2 is a longitudinal vertical section taken through the draw-bar. Fig. 3 is an enlarged detail view of the pivoted latch, the head-block and guide-plate detached, showing the draw-bar in position to engage the pivoted latch. Fig. 4 is a detail view showing the manner of attaching the draw-bar and the spring for supporting the same in a horizontal position.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the draw-head, having keyed at its rear end a wrought-metal bar, B, having mounted thereon a spiral spring, *a*, bearing against the rear end of the draw-head at one end, and against a key, *b*, at the rear end of the bar B at its other end, the said bar B being adapted to be mounted in a frame-work upon the under side of a car in the usual well-known manner.

The draw-head A is divided into two compartments, C C', by a partition-wall, D, cast integral with the draw-head, and said partition-wall is provided at its forward end with a horizontal slot, *c*, and with a vertical passage or opening, *d*. It will thus be seen that when necessary the draw-head may be used in connection with the ordinary form of coupling, the link fitting in the slot *c* and the pin in the vertical passage *d*.

The compartment C is open on its upper

side, and in said compartment is located a draw-bar, D', which is provided at its forward end with a head, *e*, having an opening, *e'*. Near the rear end of the draw-bar is provided a horizontally-disposed elongated slot, *e''*, through which passes a bar, *e'''*, the ends of which are fitted in the partition-wall and the outer wall of said compartment. Fitting an opening in the rear wall, D², of compartment C' is a rod, D³, the rear end of which is provided with a hole or opening, through which passes a pin, *d''*, in rear of the end wall, thus preventing the said rod from being detached by forward draft. At the forward end of the rod D³ is provided a head, D⁴, having a concave face, *d''*, and fitted upon said rod is a spiral spring, *d'''*, which bears against the rear wall, D², at one end, and against the rear side of the head D⁴ at its other end, the concave face of the head D⁴ receiving the rounded rear end of the draw-bar. It will be seen that by providing this sliding spring-actuated rod and locating the same to bear against the rear end of the draw-bar the same will be pushed forwardly by said spring-actuated rod the length of the elongated slot therein, and will be held in such position.

In the bottom of compartment C, near the forward end thereof, is provided a hole or opening, *e'*, in which is located a rod, *e''*, carrying at its upper end a plate, *e'''*, upon which rests the draw-bar. A spiral spring, E³, is located upon said rod, and bears against the under side of the plate *e'''* at one end and against the bottom of the compartment at its other end. The end of said rod extends through the opening *e'*, and is provided near its lower end with an opening, in which is fitted a key, *e''*, for preventing the detachment of said rod.

In the compartment C', which is provided with an inclined bottom, as shown, is provided a latch, E, which is pivoted upon a shaft having bearing in the partition-wall at one end, and in the outer wall of the draw-head at its other end. The said latch E is provided at its rear end with a weighted extension, E', and with a downwardly-extending curved wing, E², against which the end of the draw-bar strikes when the cars are being coupled. The front end of said pivoted catch is provided

with a ledge, E^1 , upon which is adapted to fit the end of a head-block, F , having a recess to receive the ledge. The head-block F is pivoted near its upper end between the side of a box or casing, G , formed with the draw-head, but mounted above the same and having communication therewith, and its lower end is provided with a weighted extension, F' , which serves to hold the front end of the pivoted catch in place when the cars are coupled.

Upon the bottom of compartment C' is arranged a guide-cleat, H , which is formed with a raised portion, f' , and just in rear of said raised portion with a seat, f^2 , in which the end of the draw-bar fits, said guide-cleat serving to hold the draw-bar in place and guide it in its movement to the catch.

Upon the front of the car are provided brackets h' , in which is journaled a shaft, h^3 , carrying an arm, h^4 , which is connected with the upper end of a head-block by a chain, h^5 . One end of the shaft extends beyond the side of the car, and is provided with an operating-lever, j , which is adapted to engage a catch, k , on the side of the car, when it is desired to hold the head-block in a raised position.

The operation is as follows: The draw-bar of the adjacent car enters the compartment C' , and strikes the downwardly-extending wing of the pivoted catch and lowers the same, said catch being held in such position by means of the head-block. To uncouple the cars the lever on the end of the shaft h^3 is turned, which raises the head-block, and as the pivoted catch is weighted at its rear end it drops by gravity from engagement with the draw-bar, which may then be withdrawn.

The spring on the rear end of the draw-bar serves to prevent all jarring, and also prevents said draw-bar from being broken.

As the draw-bar is pivoted by means of a bar or rod passing through an elongated slot therein, it will be observed that cars of different heights may be coupled.

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

1. The combination, with a draw-head, of the pivoted latch E , having the weighted arm E' and the wing or abutment E^2 , against which the coupling-link or draw-bar strikes, and the pivoted head-block F , adapted to swing over the head of the latch and lock the same to secure the draw-bar or link, substantially as described.

2. The combination, with a draw-head, of the pivoted latch E , having the weighted arm E' and the wing or abutment E^2 , against which the coupling-link or draw-bar strikes, the pivoted head-block F , adapted to swing over the head of the latch and lock the same to secure the draw-bar or link, and means for tilting the head-block to release the latch and cause the latter to release the draw-bar or link, substantially as described.

3. The combination, with the draw-head having guiding-cleat H , provided with the raised portion f' and seat f^2 , of the pivoted latch for engaging with the draw-bar or link, and the head block for securing the latch in a locked position to retain the draw-bar or link, substantially as described.

4. The draw-head having the compartments C and C' , a draw-bar or link secured in compartment C , the pivoted latch E , having the weighted end E' , and the wing or abutment E^2 , against which the draw-bar or link of the adjacent car strikes, and the head-block F , for securing the latch in a locked position, the latch and head-block being located in compartment C' , substantially as described.

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

JOHN MCGEHEE.

Witnesses:

FRANCIS ELLIS CALLICOTT,
THOMAS S. RIDGWAY.