(No Model.)

W. G. COLLINS.

CAR COUPLING.

No. 405,875. Patented June 25, 1889.

Fig. 1.

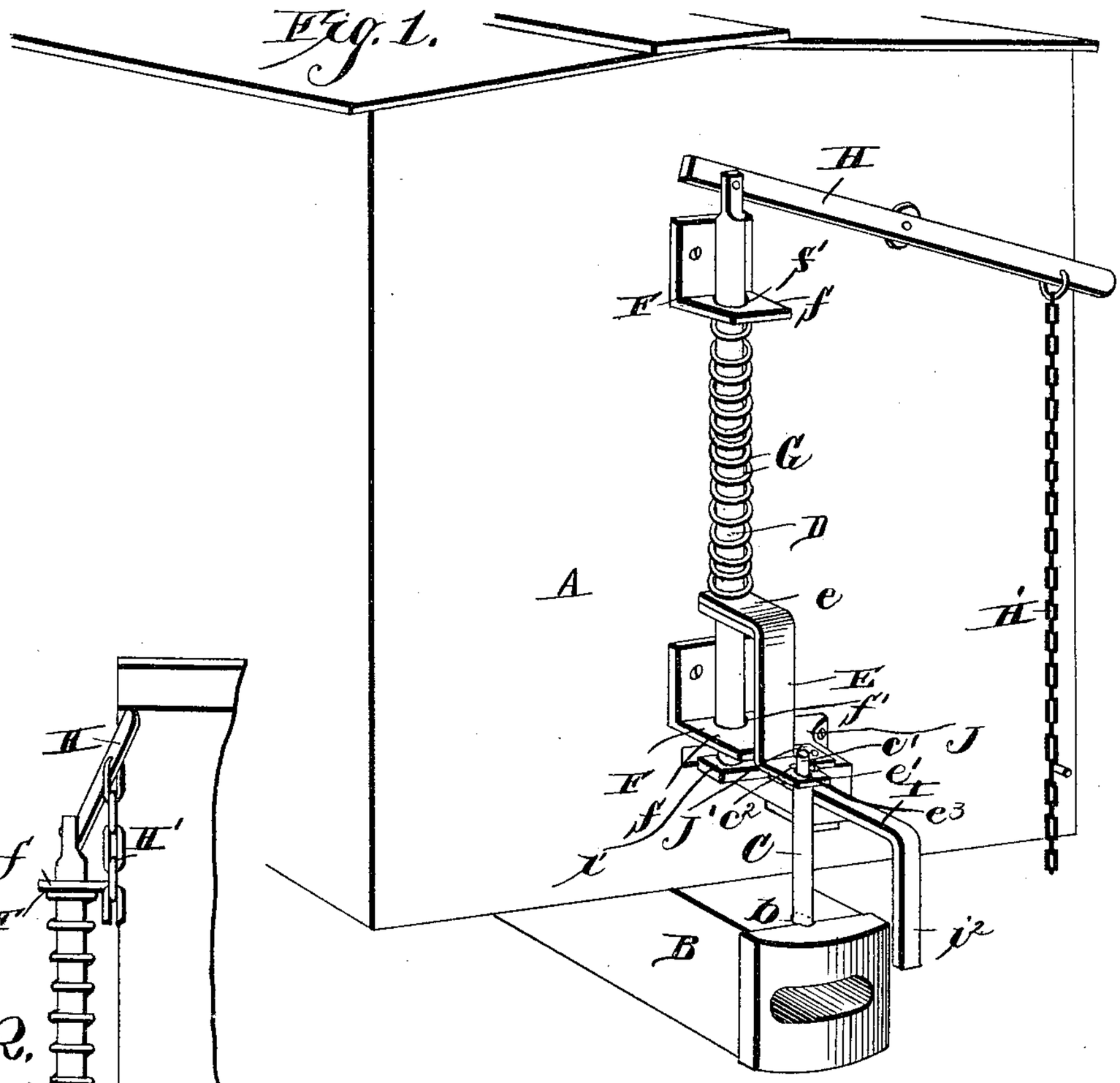


Fig. 2.

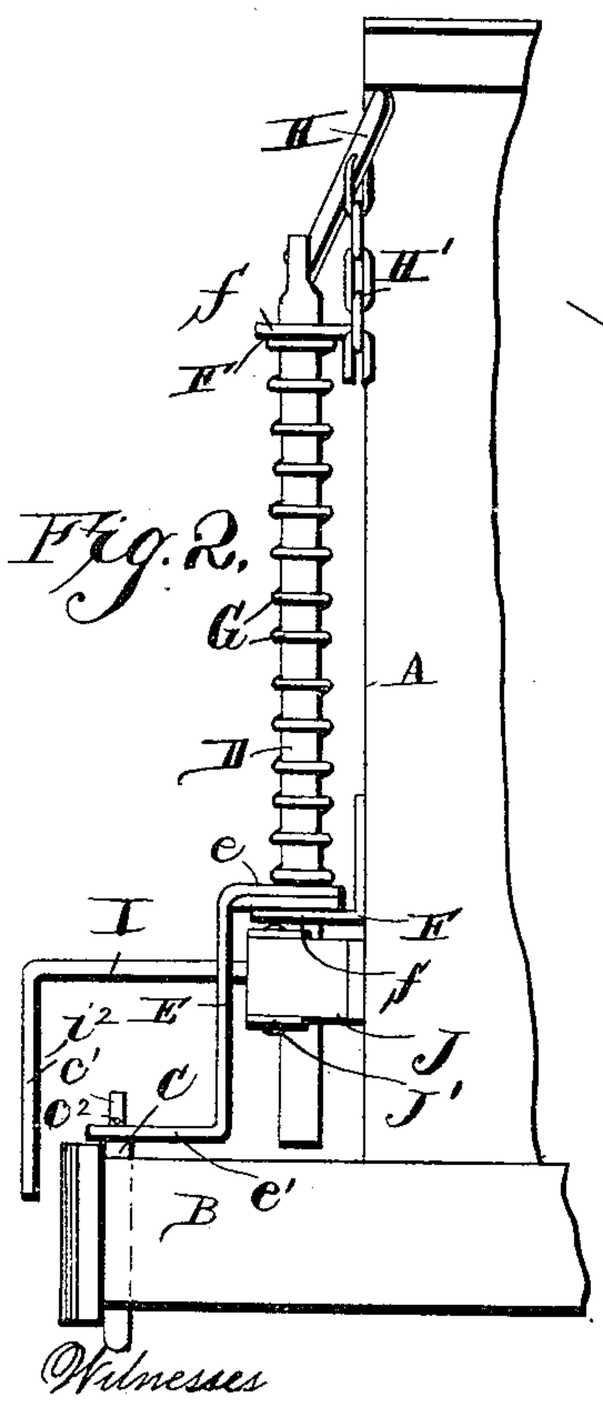
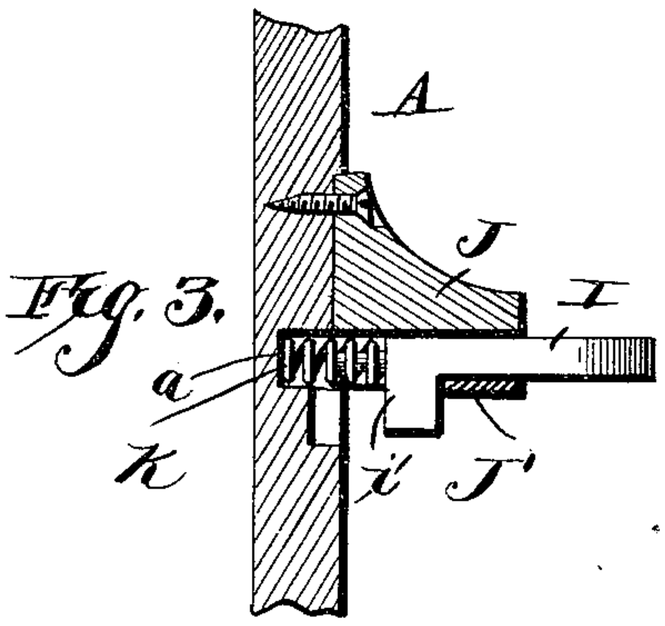


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILEY G. COLLINS, OF SHAMROCK, VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 405,875, dated June 25, 1889.

Application filed April 29, 1889. Serial No. 308,983. (No model.)

To all whom it may concern:

Be it known that I, WILEY G. COLLINS, a citizen of the United States, residing at Shamrock, in the county of Grayson and State of Virginia, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to provide a coupling of simple and inexpensive construction adapted to be readily used in connection with an ordinary draw-head, and capable of automatically coupling the cars upon their coming together.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a car provided with my improved coupling, the pin being shown in position preparatory to coupling. Fig. 2 is a side elevation, and Fig. 3 is a horizontal sectional view.

In the accompanying drawings, A designates the front of a car, having a draw-head B of ordinary construction, provided with a vertical opening *b*, communicating with the transverse link-opening to receive a coupling-pin C.

The pin C is connected to a rod D by an arm E, which is fixed to said rod and extends forward and downward from the same, the ends *e e'* being bent at right angles to the length of the arm and projecting in opposite directions. The end *e* is fixed to the rod D at a point about the middle of the same, and the end *e'* is provided with a slot e^3, through which passes the upper end *c'* of the pin C, which end is reduced and retained in said slot by a key c^2. The slot e^3 is elliptical to allow slight forward and backward movement of the pin to conform to the motion of the draw-head B. The pin is mounted in brackets F, which are suitably secured to the front of the car, and are provided in their laterally-extending plates *f* with aligned openings *f'*, in which the rod D works vertically to raise and lower the pin C, to carry the same into and out of engagement with a link to couple and uncouple cars. The rod is provided with a spiral spring G, which is interposed between the arm E and the top bracket F, whereby the rod D is normally held in a depressed or lowered position, and the pin C is held in engagement with a link. The upper end of the rod D is connected to the inner end of a lever H, that is pivoted near the top of the car A, and the outer end of the lever extends to the side of the car and is provided with a suitable chain H', by means of which the lever can be operated from below to raise the rod D to bring the pin out of engagement with the link and thereby uncouple the cars.

To hold the rod D in its elevated position and the pin in position preparatory to coupling, a spring-actuated sliding support I is provided, which is mounted in a suitable frame J, that has a longitudinal recess F' to receive the support, whereby when the rod D is raised the support I will be forced under the rod D and hold the same in its elevated position. The side of the frame is provided with a suitable casing J', to prevent lateral movement of the support.

The rear end of the support I is preferably round in cross-section and is provided with a spiral spring K, which is coiled around the same. The rear end K of the spring abuts against the back of a recess *a* formed in the front of the car, while the front bears against the laterally-projecting portion *i'*, which forms a seat for the rod D. The front end i^2 extends forward and downward in front of the draw-head B, and is designed to be engaged by the draw-head of the adjacent car when the cars come together, to slide the support from under the rod and cause the pin C to descend and engage the link.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will readily be understood.

What I claim is—

1. The combination, in a car-coupling, with a draw-head, of a coupling-pin, a rod sliding in suitable brackets and provided with an arm connected to said pin, and a spring to hold the rod normally depressed, substantially as specified.

2. The combination, in a car-coupling, with

a draw-head, of a coupling-pin, the rod pivoted with an arm extending forward and downward and connected to said pin, the brackets provided with aligned openings in which said rod works, and a spring interposed between said arm and one of the brackets, substantially as specified.

3. The combination, in a coupling, with a draw-head, of a coupling-pin, the rod sliding in suitable brackets and provided with an arm connected to said pin, and a spring-actuated sliding support having its front end extending forward and downward in front of the draw-head, substantially as described.

4. The combination, in a car-coupling, with a draw-head, of the coupling-pin, the rod sliding in suitable brackets and provided with an arm connected to the coupling-pin, the frame secured to the front of the car and provided with a recess, and the spring-actuated sliding support in said recess and having its front end extending down in front of the draw-head, substantially as described.

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

W. G. COLLINS.

Witnesses:
J. H. SIGGERS,
E. G. SIGGERS.