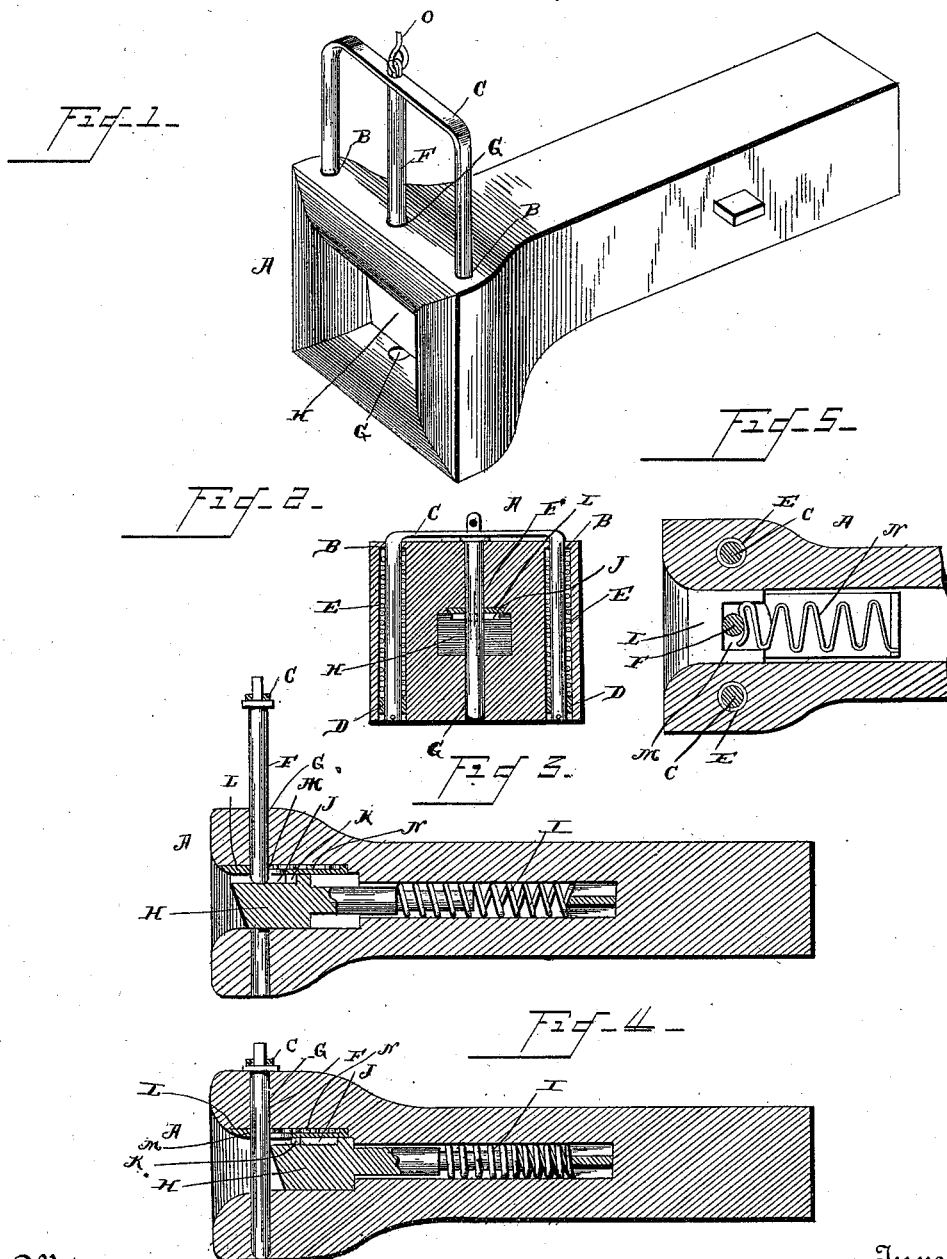


(No Model.)

J. E. THOMPSON.
CAR COUPLING.

No. 418,594.

Patented Dec. 31, 1889.



Witnesses

Geo. C. Fitch.

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UNITED STATES PATENT OFFICE.

JOSHUA E. THOMPSON, OF RICHMOND, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 418,594, dated December 31, 1889.

Application filed October 18, 1889. Serial No. 327,419. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA E. THOMPSON, a citizen of the United States, residing at Richmond, in the county of Madison and State of Kentucky, have invented a new and useful Automatic Car-Coupling, of which the following is a specification.

My invention relates to improvements in car-couplers; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved car-coupling, showing the coupling-pin raised. Fig. 2 is a transverse section showing the coupling-pin lowered into engagement with the coupling-link. Figs. 3 and 4 are longitudinal sections. Fig. 5 is a horizontal section.

The draw-head A is of the usual or any preferred size and shape, and it is provided at its front end with the vertical openings B B, in which the arms of an inverted-U-shaped frame C play. Collars or sleeves D are secured to the arms of this frame, near the lower ends of the same, and springs E are coiled around the said arms between the upper ends of the openings D and the collars or sleeves, and serve to normally hold the said frame lowered, so that the coupling-pin will be in engagement with the link. The coupling-pin F is carried by this frame and plays through the pin-holes G in the top and bottom of the draw-head, as will be readily understood.

The coupling-pin is supported in its raised position by a sliding block H, arranged within the draw-head and normally projected forward by a spring I, arranged between its rear end and the inner rear wall of the draw-head, as clearly shown. This sliding block is provided in its upper side at its front end with a longitudinal groove J, in which a lug or spur K projects. This lug or spur is formed on the under side of a plate L, which is secured in the roof of the draw-head, and is provided with an opening M, registering with the pin-holes G in the draw-head, and through which the pin passes. This plate L is recessed in its upper side, and a spring N is arranged in said recess and bears on the coupling-pin, so as to hold it against the front walls of the pin-holes, and thereby prevent its too rapid descent into the draw-head. The pin or lug K

prevents the sliding block from being thrown out of the draw-head, as it is engaged by the rear end of the recess J in the upper side of said block.

The coupling-pin is raised by means of a rod O, mounted on the end of the car, and having its lower end connected with the pin or the frame C, and its upper end arranged slightly above the roof of the car.

When it is desired to couple two cars together, the coupling-link is manually secured in one draw-head and the cars then made to approach. As the link enters the opposing draw-head it will push the pin-supporting block rearward, thereby allowing the pin to fall into engagement with the link, and the springs E will at once throw the frame C and the pin downward and hold the pin in engagement with the link. When it is desired to uncouple the cars, the frame C is raised, thereby drawing the pin out of engagement with the links and permitting the withdrawal of the link from the draw-head, the pin-supporting block will be at once thrown forward so as to support the pin by the spring arranged in rear thereof, and the device will thus be arranged in proper position to effect another coupling.

It will be seen from the foregoing description that I have provided a car-coupling which is automatic in its operation, and which is simple in its construction and compact in its arrangement. The pin will be effectually held in either its raised or lowered position and accidental uncoupling will thus be effectually prevented.

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

1. The combination, with the draw-head, of the U-shaped frame mounted in the front end of the same, the coupling-pin carried by the frame, and the springs coiled around the arms of said frame within the draw-head and adapted to hold the same normally lowered, as set forth.

2. The combination, with the draw-head, of the pin-supporting block sliding therein, a spring arranged in rear of said block and adapted to project the same forward, the U-shaped frame mounted in the front end of

the draw-head, the coupling-pin carried by said frame, and the springs arranged around the arms of said frame to hold it normally lowered, as set forth.

5 3. The combination, with the draw-head and the pin playing vertically therein, of the spring arranged within the draw-head and bearing on the pin to hold it against the walls of the pin-holes, as set forth.

10 4. The combination of the draw-head, the sliding block therein having a recess in its upper side, the plate secured in the draw-

head and having a depending lug engaging the recess in the sliding block, and the spring above said plate bearing on the pin, as set forth. 15

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

JOSHUA E. THOMPSON.

Witnesses:

W. G. HOLLAND,

B. G. POWELL.