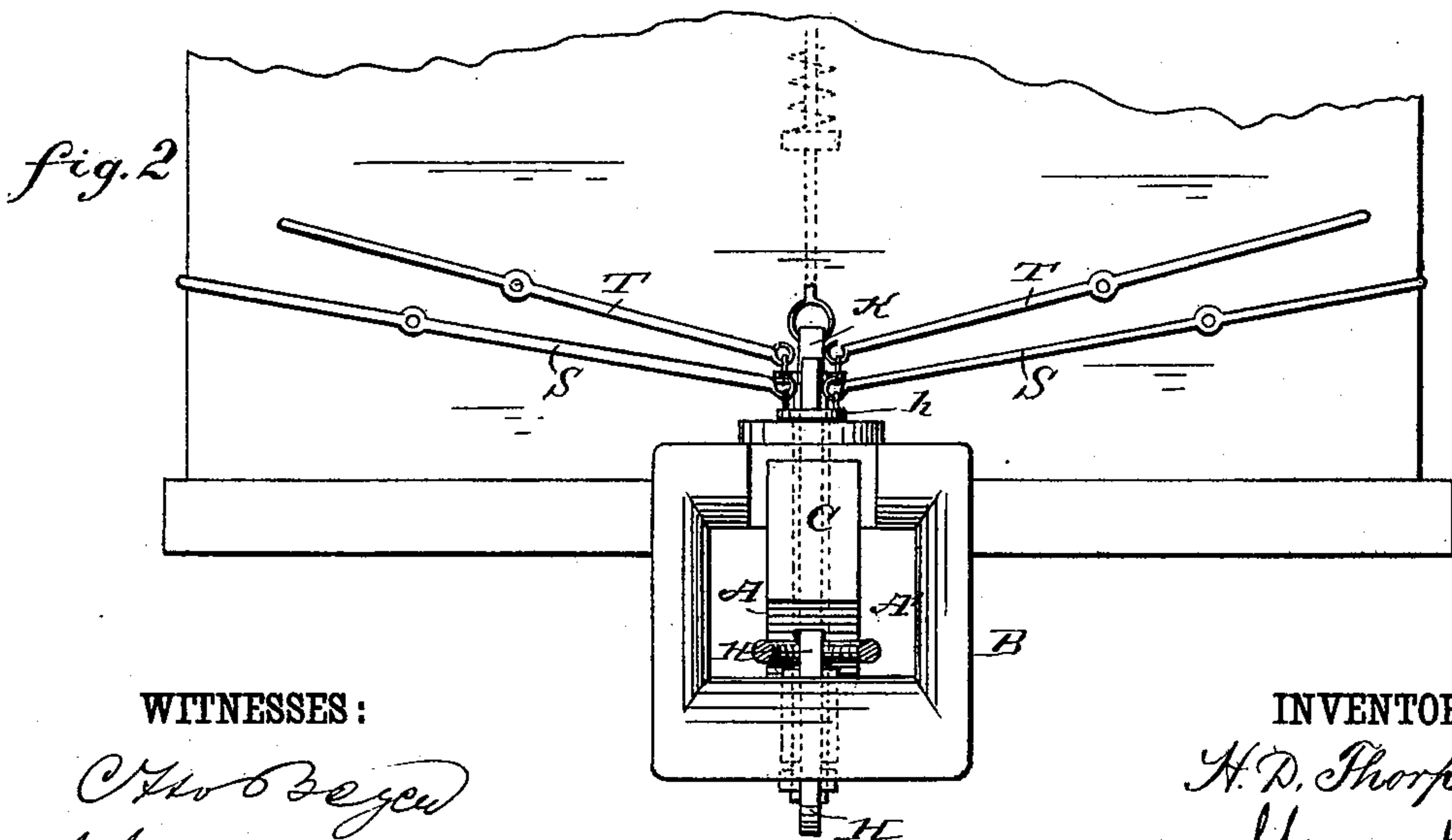
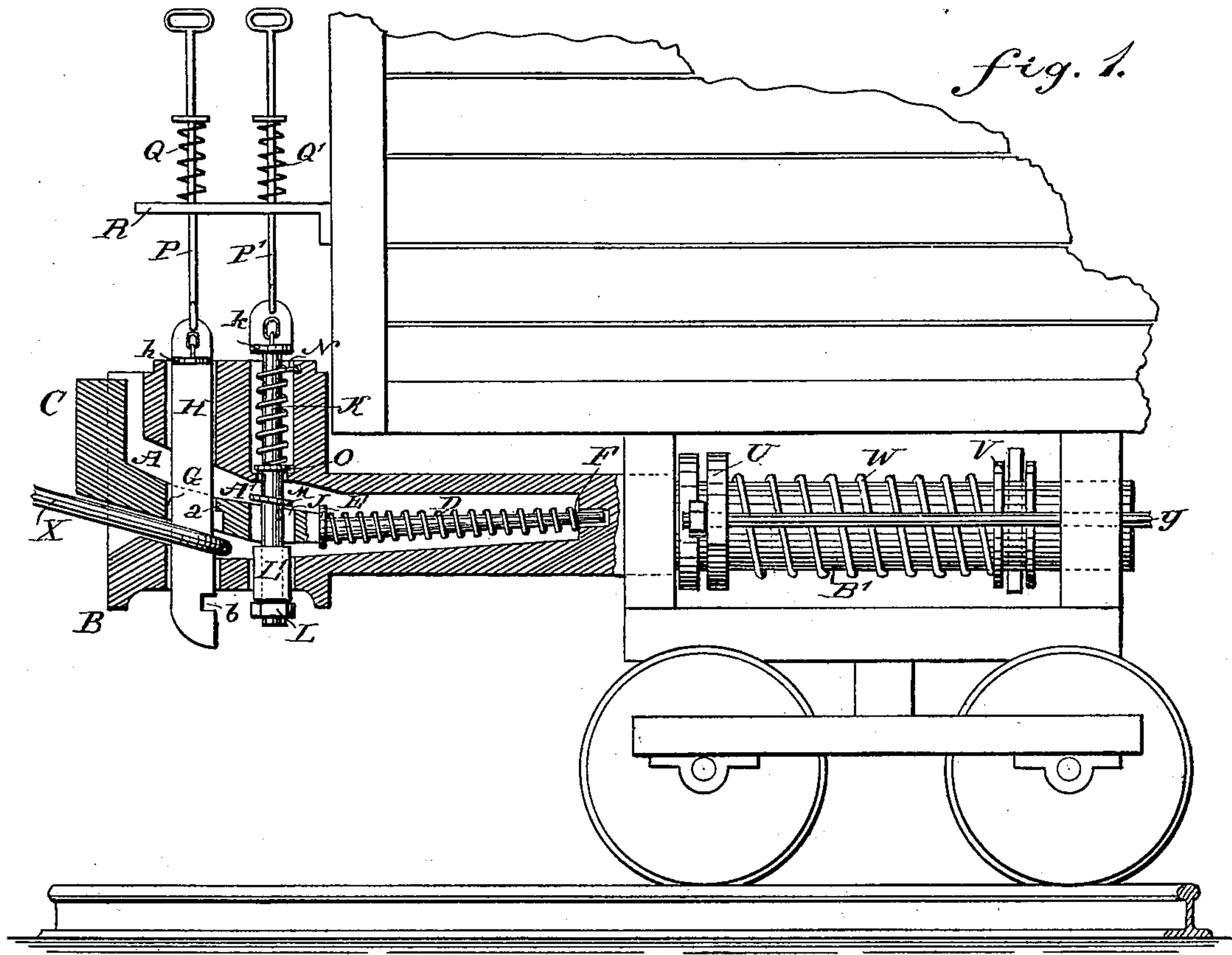


(No Model.)

H. D. THORP.  
CAR COUPLING.

No. 262,509.

Patented Aug. 8, 1882.



WITNESSES:

*Chas. B. Jewell*  
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# UNITED STATES PATENT OFFICE.

HENRY D. THORP, OF FORT WAYNE, INDIANA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 262,509, dated August 8, 1882.

Application filed June 6, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY D. THORP, of Fort Wayne, in the county of Allen and State of Indiana, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The invention consists in a latch held in the draw-head and pressed toward the outer end by a spring, which latch has an aperture with a tongue or projection, through which the coupling-pin can pass, which coupling-pin has a notch in its rear edge, into which notch this tongue passes and holds the pin raised, and when the cars come together the latch is pressed inward, the pin is released, and drops through the link.

The invention further consists in a bolt or pin passing through the latch and provided at its lower end with a nut, which bolt is adapted to raise the latch.

The invention also consists in details of construction and combinations of the same, as will be fully described hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal sectional elevation of my improved car-coupling. Fig. 2 is an end elevation of the same.

A latch, A, is contained in a longitudinal recess, A', in the draw-head B, the front end, C, of this latch being bent upward to form a head. A spring, D, surrounds the shank or stem of the latch A, this spring being between a fixed collar, E, on this stem, and a shoulder, F, at the rear end of the recess A'. This latch is provided with an aperture, G, through which the coupling-pin H can pass, which aperture is provided at its upper rear edge with a transverse projection or tongue, a, which is adapted to pass into a notch or recess, b, in the rear edge of the coupling-pin and at or near the lower end of the same. The shank of the latch A is provided with a slot, J, behind the aperture G, and through this slot J a pin or bolt, K, passes, on the lower end of which a nut, L, is screwed below a collar, L'. A collar, M, is provided on this pin or bolt K above the latch-shank. A spiral spring, N, surrounds the up-

per part of the bolt or pin K and rests on a collar, O, of this bolt, the upper end of this spring being secured to the draw-head or resting against a projection of the same. This spring N presses the pin K downward.

A handle-rod, P, attached to the top of the coupling-pin H extends through a bracket-arm, R, or platform projecting from the end of the car, and reaches up to the railing of the car-platform or to the top of a box-car. A spiral spring, Q, surrounding this rod P is attached to the same, and rests on the bracket-arm or platform R, and draws the rod P downward. A like rod, P', is attached to the pin K, and is drawn downward by a spring, Q', surrounding it and drawing it downward.

Levers S, pivoted to the end of the car and reaching to the sides of the car, have their inner ends connected with the coupling-pin H, and levers T, pivoted to the ends of the car above the levers S, have their inner ends connected with the pin K. The coupling-pin is provided with a collar, h, to prevent it from being drawn down too far, and the pin K is provided with a collar, k, for a like purpose.

A collar, U, loosely surrounds the shank B' of the draw-head, and between this collar and a fixed collar, V, or projection on the rear end of the shank B' of the draw-head a spiral, W, surrounds this shank. The loose collar U of one draw-head is connected with the loose collar U of the opposite draw-head by two connection-rods, Y, so that the springs W on each draw-head will be compressed when the cars are coupled and one car draws the other.

The operation is as follows: If the cars are to be coupled, the latch A is raised by pulling the rod P upward or by means of the lever T, and at the same time the coupling-pin H is raised by means of the rod P or the levers S. As soon as the pin H is raised to such height that the tongue or projection a will be opposite the notch b in the rear longitudinal edge of the coupling-pin the spring D presses this tongue or projection a into the notch b, and thus the latch A holds the coupling-pin H raised. When the cars come together the head C of the latch A will be struck by the opposite draw-head, and will be pushed inward, where-by the tongue or projection a will be withdrawn



from the notch *b*, thus permitting the coupling-pin *H* to drop. The link *X* of the opposite draw-head in the meantime has passed into the draw-head and under the latch *A*. The pin *H* will thus pass through this link, and the cars will be coupled. The latch *A* is pressed downward by the springs *K* and *Q'*, and will thus rest on the link *X* in the draw-head. The bottom of the draw-head and the bottom of the latch are beveled, and the link *X* will be held inclined upward as it is pressed between the above-mentioned beveled surfaces. If the link is to be held in a more horizontal position, the latch *A* is raised more or less by means of the rod *P'* or the levers *T*, whereby the inner end of the link will be permitted to rise, and the outer end will be permitted to descend.

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

1. The combination, with the draw-head *B*, of the latch *A*, contained in the draw-head, and provided at its outer end with a head, *C*, and having its shank surrounded by a spring, *D*, substantially as herein shown and described, and for the purposes set forth.

2. The combination, with the draw-head *B*, of the latch *A*, contained therein, and provided with a head, *C*, on its outer end, the fixed collar *E*, and the spring *D*, surrounding the shank of the latch, substantially as herein shown and described, and for the purposes set forth.

3. The combination, with the draw-head *B*,

of the latch *A*, provided with a head, *C*, and an aperture, *G*, with a tongue or projection, *a*, the spring *D*, and the coupling-pin *H*, provided with a notch, *b*, substantially as herein shown and described, and for the purposes set forth.

4. The combination, with the draw-head *B*, of the latch *A* therein, the spring *D*, the coupling-pin *H*, the pin or bolt *K*, and devices for raising the pins *H* and *K*, substantially as herein shown and described, and for the purpose set forth.

5. The combination, with the draw-head *B*, of the latch *A*, the spring *D*, the coupling-pin *H*, the pin or bolt *K*, the spring *N*, surrounding the pin or bolt *K*, and pressing it downward, and of devices for raising the pins *H* and *K*, substantially as herein shown and described, and for the purposes set forth.

6. The combination, with the draw-head *B*, of the latch *A*, the spring *D*, the coupling-pin *H*, the pin or bolt *K*, the rods *P P'*, and the springs *Q Q'*, substantially as herein shown and described, and for the purposes set forth.

7. The combination, with the draw-head *B*, of the latch *A*, the spring *D*, the coupling-pin *H*, the pin or bolt *K*, the rods *P P'*, the springs *Q Q'*, and the levers *S* and *T*, substantially as herein shown and described, and for the purpose set forth.

HENRY D. THORP.

Witnesses:

THOMAS W. WILSON,  
A. H. BITTINGER.