

(No Model.)

E. H. JANNEY.

CAR COUPLING.

No. 251,594.

Patented Dec. 27, 1881.

Fig. 1.

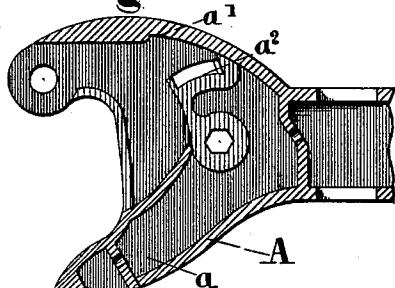


Fig. 2.

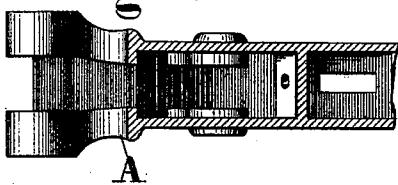


Fig. 3.

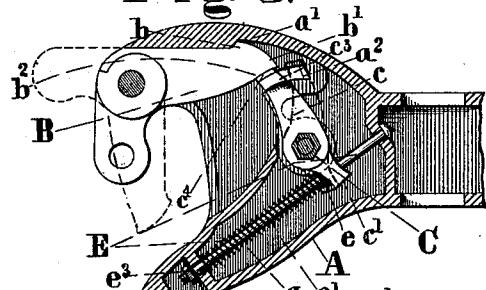


Fig. 4.

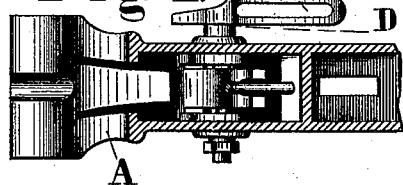


Fig. 5.

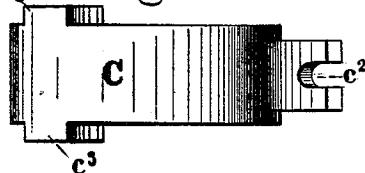


Fig. 6.

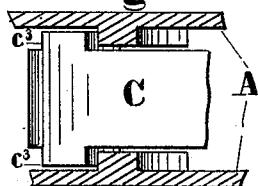


Fig. 7.

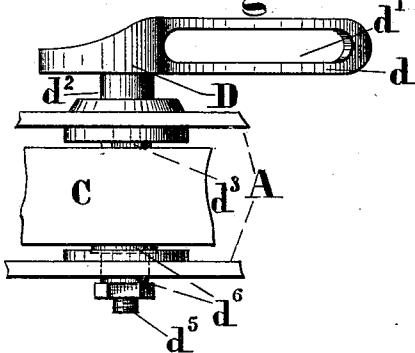
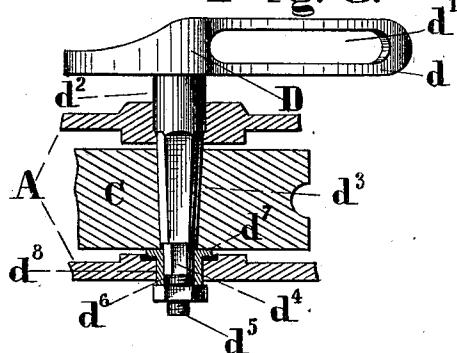


Fig. 8.



WITNESSES:

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ATTYS

UNITED STATES PATENT OFFICE.

ELI H. JANNEY, OF FAIRFAX COUNTY, VIRGINIA, ASSIGNOR TO JANNEY CAR COUPLING COMPANY.

CAR-COUPING.

SPECIFICATION forming part of Letters Patent No. 251,594, dated December 27, 1881.

Application filed November 24, 1880. (No model.)

To all whom it may concern:

Be it known that I, ELI H. JANNEY, of the county of Fairfax and State of Virginia, have invented new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists, mainly, in the combination of the lever-arm of a rotating hook-nose with an oscillating locking-block of special construction.

It consists, further, in certain special details of construction, all of which will be fully described hereinafter.

In the drawings, Figure 1 represents a horizontal sectional view of the draw-head; Fig. 2, a side section of the same; Fig. 3, a horizontal section of the coupling; Fig. 4, a side section of the same. Figs. 5 and 6 represent elevations of the locking-block enlarged; Fig. 7, a side elevation of the lever and pivot-pin, enlarged; and Fig. 8 a vertical section of the same.

To enable others skilled in the art to make my improved coupler and properly use the same, I will proceed to describe fully its construction and manner of operation.

A, Fig. 3, represents a draw-head of the Janney type, which is provided upon one side with the chamber a , for holding the spring of the locking-block, and upon the other side with a recess, a' , adapted to receive a corresponding projection, b , upon the lever B, as shown.

a^2 represents curved recesses in the top and bottom plates of the draw-head, the purpose of which will be hereinafter described.

B, Fig. 3, represents the lever-arm of the coupling-hook nose, which is provided with the projection D, before referred to, the inclined face b' , and the curved face b^2 , as shown.

C, Figs. 3, 5, and 6, represents the locking-block, provided with a hexagonal opening extending vertically through it and with arms c c' , extending in opposite directions from the opening, as shown.

c^2 , Fig. 5, represents a transverse slot in the short arm of the block, and c^3 c^3 vertical projections located at the end of the long arm upon its upper and lower sides, as shown.

c^4 , Fig. 3, represents a curved bearing-face upon the extreme end of the long arm, as shown.

D, Figs. 4, 7, and 8, represents the pivot-pin, to which is attached, at its upper end, the horizontal lever d , having the slot d' , as shown.

d^2 ; Fig. 8, represents a cylindrical portion of the pin, which forms the upper bearing; d^3 , a tapering hexagonal portion, adapted to fit the vertical opening in the block; d^4 , a uniform hexagonal portion of reduced diameter, adapted to fit the sleeve, hereinafter referred to; and d^5 , a threaded cylindrical portion, adapted to receive a nut, as shown.

d^6 represents a sleeve, located upon the lower hexagonal part of the pivot-pin, which is provided with a bearing-surface, d^7 , adapted to support the locking-block, and a bearing-surface, d^8 , which rests against the draw-head and forms the lower support for the pivot-pin.

E, Fig. 3, represents a bolt, located in the chamber a of the draw-head, which extends through the transverse slot c^2 of the locking-block when the parts are in their proper positions, and upon which is located a washer, e , adapted to bear against the short arm of the locking-block, a coil-spring, e' , surrounding the same, a retaining-plate, e^2 , and a nut, e^3 , as shown.

The operation of the described construction is substantially as follows: As the lever-arm is attached to the nose of the coupling is swung back into the recess of the draw-head the inclined face at the end of the same comes in contact with the end of the long arm of the locking-block, and, swinging the same upon its pivot-bearings, passes in behind it. The locking-block, being released by the passage of the arm, returns to its normal position and securely locks the same.

The lever-arm is like a tooth of a pinion and the locking-block like a pivoted pawl employed in connection therewith to arrest the retrograde movement of the arm.

When it is desired to uncouple the cars the pivot-pin and locking-block are revolved by means of the lever d , attached to the pin.

The adjacent bearing faces of the locking-block and the lever-arm constitute arcs of a circle drawn from the center of the pivot-pin, and hence the block is permitted to move upon

the arm, in uncoupling, with the minimum amount of friction. The projections c^3 and the recesses in which they move coincide in curvature with the line of movement of the block, so that the binding of one part upon the other is made impossible. By means of these projections and recesses the strain given to the pivot-pin by the pressure of the lever-arm upon the locking-block is transferred in part to the draw-head.

10 The upper hexagonal portion of the pivot-pin being made tapering in form, and the opening of the locking-block being made to correspond, it follows that the latter may be tightly secured to the former by simply screwing up the nut, by means of which action the sleeve supporting the block will be raised and necessarily give the latter vertical movement upon the pivot-pin.

15 20 By means of the special construction described greater simplicity in construction is obtained with increased efficiency in action.

Having thus fully described my invention, what I claim as new, and desire to secure by 25 Letters Patent, is—

1. In combination with the pivot-pin D, having the lever d and the vertical portion d^3 , the

locking-block C, rigidly secured thereto, as described.

2. In combination with the locking-block C, 30 the pivot-pin D, having the tapering portion d^3 , the sleeve d^6 , and the adjusting-nut, as described.

3. In combination with a lever-arm, b, the pivoted locking-block C, having two arms, one 35 of which acts to lock and release the lever b and the other to compress a spring, substantially as described.

4. In combination with the locking-block and draw-head, a pivot-pin, D, having the tapering portion d^3 and bearing portions d^2 d^6 , 40 as described.

5. In combination with the pivoted locking-block C, the bolt E and spring e', substantially as described.

6. In combination with the draw-head A, the locking-block C, the pivot-pin D, and the sleeve d^6 , as described.

This specification signed and witnessed this 16th day of November, 1880.

ELI H. JANNEY.

Witnesses:

JNO. MARRIOTT,
R. E. JANNEY.