J. MILLER.

Car Coupling.

No. 69,927. Patented Oct. 15, 1867.

Fig: 2.

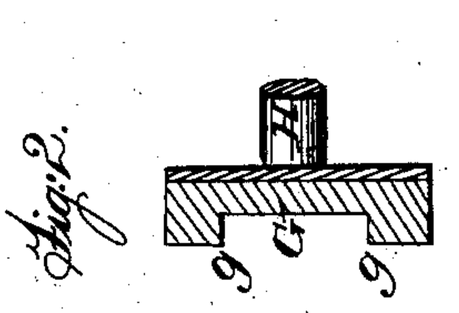

Fig: 1.

Witnesses

Alex: A. C. Klueck

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Inventor

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United States Patent Office.

JACOB MILLER, OF CARROLLTON, OHIO.

Letters Patent No. 69,927, *dated October* 15, 1867.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JACOB MILLER, of Carrollton, in the county of Carroll, and State of Ohio, have invented a new and useful Improvement in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, reference being had to the accompanying drawings, which are made a part of this specification, and in which—

Figure 1 is a vertical central longitudinal section of a draw-head with my improved coupling applied thereto.

Figure 2 is a detached view, hereinafter referred to.

Figure 3 is a longitudinal elevation, with the near side of the draw-head and one of the cheeks of the pivoted catch removed to expose the operating parts.

Similar letters of reference indicate corresponding parts in the several figures.

In the coupling, the subject of this invention, the connecting-link or bar, which has pointed heads at its opposite extremities, is held within the draw-head by means of a stationary hook or projection and a pivoted catch of peculiar form, which is held down by the pressure of a spring-piston. The uncoupling is effected by means of a lever, the vibration of which disengages the pivoted catch from the shoulders of the coupling-link, and at the same time raises the latter, by means of a lifting-pin, and places it above and beyond the reach of the stationary hook, so as to permit said coupling-link to pass freely out of the draw-head, and to prevent the necessity of standing between the cars in the act of coupling. The latter object is attained by means of an adjustable frame, which is adapted to support the coupling-link in a horizontal position and in line with its draw-head, thus directing the link into the mouth of the draw-head of an approaching car.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe it in detail, in connection with the accompanying drawings.

A may represent a draw-head, which is constructed with an internal chamber for the accommodation of the coupling devices. These consist of a stationary hook or catch, B, projecting backward and upward from the floor of the draw-head, and a pivoted catch, C, from the opposite sides of which latter depend the cheek-pieces C^1, which carry the transverse lifting-pin *c*. The catch C, together with the cheek-pieces C^1 and pin C, is pressed downward by means of the piston or plunger D, which is actuated by means of the spring within the vertical cylindrical casing D^1, said plunger D being free to yield upward under the positive force which is applied to the catch C by means of the lever E. Thus, when the head of the coupling-link F is thrust into the mouth of the draw-head A, its impingment against the inclined face of the catch C raises the latter sufficiently to permit the head to pass behind it, then the spring-plunger D depresses the pivoted catch C, and together with the stationary hook B engages the shoulders on the link-head, and thereby securely retains the same in the draw-head. To enable the link to be withdrawn from the draw-head the lever E is moved forward by hand, and the catch C is thereby raised and disengaged from the link-head. This movement also raises the pin *c*, which, moving against the lower curved face of the link-head, lifts the latter to such a height that it may pass out over the hook B. G G′ represent a movable frame, the vertical position G of which is located at the rear of the chamber in the draw-head, and is acted upon by the spring-plunger H. Upon the forward end of the horizontal extension G^1 is formed the flange G^2, in the upper edge of which is a notch or recess, which receives and prevents the lateral movement of the link F when the frame G G^1 occupies the elevated position designated by the blue lines in fig. 1. When the movable frame is raised, (which may be done by hand or in any convenient manner,) it is pressed forward by the spring-plunger H till the vertical portion G rests upon the floor of the draw-head, when the shoulders *g g* of said vertical portion stand on either side of the link-head and prevent the lateral movement of the enclosed link-head, while the link is supported and steadied at the mouth of the draw-head by the flange G, and held down at a point near the head by the catch C. By this means the link is held in a horizontal position, and made to project in a direct line forward of the draw-head A. In this position the link is adapted to couple with an approaching car, without involving the danger which attends the manipulation of links, as generally applied. When the cars come together the link F, being driven backward in the draw-head, forces the frame G G^1 backward, causing it to lose its support upon the floor of the draw-head, and fall to the position indicated

by red lines in fig. 1. Under this position of the parts the flange G^2 and shoulders *g g* no longer interfere with the lateral vibration of the link, which should, of course, be permitted, when the cars are coupled.

Having thus described my invention, the following is what I claim as new herein, and desire to secure by Letters Patent:

1. I claim the pivoted coupling-piece C C′ and pin *c*, adapted by vibration to disengage the coupling-link F, substantially as and for the purpose set forth.

2. I claim the movable piece G, in combination with the spring H, substantially as and for the purpose specified.

3. I claim the combination of the pivoted catch C, pin *c*, hook B, spring-plunger D, and lever E, all arranged and operating substantially as and for the purpose specified.

4. I claim the movable frame G G^1, flanger G^2, and spring-plunger H, arranged and employed substantially as and for the purpose set forth.

The above specification of my improvement in car-couplings, signed this second day of March, 1867.

JACOB MILLER.

Witnesses:

ALEX. A. C. KLAUCKE,

D. L. HAZARD.