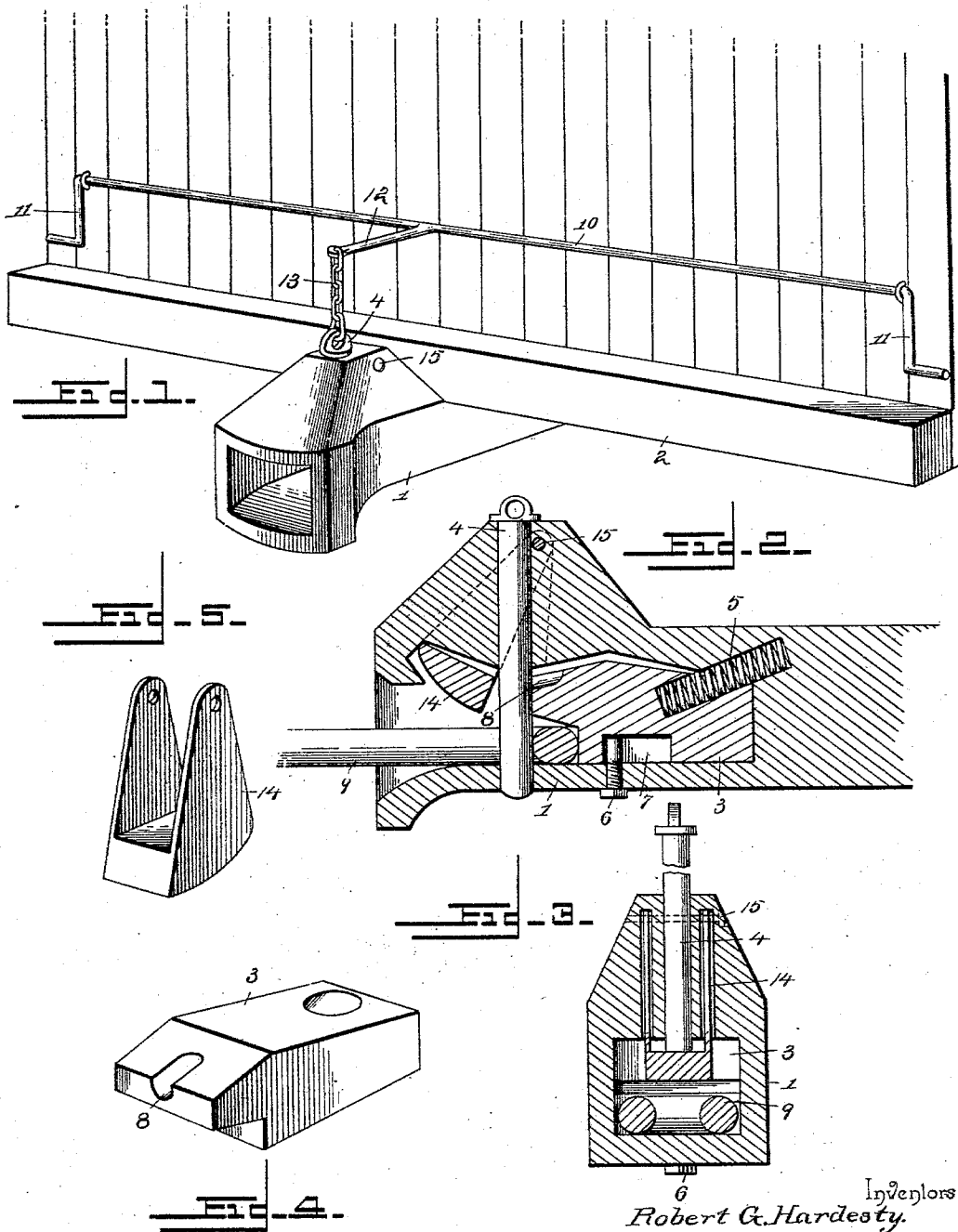


(No Model.)

R. G. HARDESTY, J. F. HALE & R. J. WELCH.
CAR COUPLING.

No. 565,114.

Patented Aug. 4, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 565,114, dated August 4, 1896.

Application filed March 23, 1896. Serial No. 584,497. (No model.)

To all whom it may concern:

Be it known that we, ROBERT G. HARDESTY, JOHN F. HALE, and ROLLA J. WELCH, citizens of the United States, residing at West Plains, in the county of Howell and State of Missouri, 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 improve the construction of pin-and-link car-couplings and to provide a simple and inexpensive one capable of coupling automatically and adapted to be readily uncoupled without going between cars.

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 car-coupling constructed in accordance with this invention. Fig. 2 is a central vertical longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the pin-supporting block. Fig. 5 is a similar view of the oscillating stirrup.

1 designates a draw-head mounted on a car 2 and having a longitudinal link opening or cavity in which is arranged a spring-actuated pin-supporting block 3, capable of a limited longitudinal movement and adapted when extended outward to have its front portion arranged beneath the upper portion of a coupling-pin perforation to support a coupling-pin 4 in an elevated position preparatory to coupling. A coiled spring 5 is arranged at the back of the block 3, and is disposed at an inclination, its upper end being fitted in a socket of the draw-head and its lower end engaging a recess of the block. The longitudinal movement of the block is limited by a screw 6, extending through the bottom of the draw-head and projecting above the same and engaging a slot or recess 7 at the lower face of the block 3.

When the coupling-pin is in an elevated position, its lower end is received in a recess 8,

arranged at the top of the block and at the front thereof and forming a seat. The front of the block is provided with a projection, and it is adapted to be engaged by a link 9 at a point below the projection, whereby when the link enters the draw-head it will move the block inward or rearward from beneath the coupling-pin and cause the latter to fall and engage it. The projection, which extends outward from the upper portion of the block, forms a lower recess for the reception of the link, and the latter is maintained in a substantially horizontal position by being engaged with such recess.

The coupling-pin is elevated to effect the operation of uncoupling by a rock-shaft 10, disposed transversely of the car and journaled in suitable bearings thereof and terminating in handles 11. This rock-shaft is provided with a centrally-arranged arm 12, which is connected with the upper end of the coupling-pin by a chain 13. When the handles of the rock-shaft are swung upward, the coupling-pin will be elevated and the spring-actuated pin-supporting block will move forward automatically and assume a position beneath the coupling-pin.

In order to hold the coupling-pin in an elevated position, when two parts are coupled, to obviate the necessity of the operator holding the coupling-pin in an elevated position until the link has been drawn out of the draw-head, a swinging stirrup 14 is provided. The stirrup is substantially U-shaped, being composed of a bottom-supporting portion and parallel sides. The sides are arranged in slots of the upper portion of the draw-head, and are pivoted to the latter by a transverse pin 15, located in the rear of coupling-pin perforation. The coupling-pin passes downward between the sides of the stirrup, and the bottom portion thereof is located normally in advance of the coupling-pin, and the stirrup is normally maintained at an inclination, whereby when the coupling-pin is raised and the block is held inward beyond the coupling-pin perforation by the link the stirrup will swing downward and assume a substantially vertical position, bringing its lower portion beneath the coupling-pin and supporting the same out

of engagement with the link. When the link is withdrawn by reason of two cars being separated, the block is moved outward by the spring, swinging the stirrup upward and passing beneath and receiving the coupling-pin. The swing of the stirrup is limited by the slots in which the sides are mounted, and the stirrup is automatic in its operation.

It will be seen that the car-coupling is simple and inexpensive in construction, that it is positive and reliable in operation, and that it is capable of coupling automatically and of being readily uncoupled without going between cars. It will also be apparent that when two cars are coupled and it is desired to uncouple them the coupling-pin is supported in an elevated position, and that it is unnecessary for the operator to hold the pin in such position until the operation of uncoupling has been completed by the separation of the cars.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What we claim is—

1. In a car-coupling, the combination of a draw-head having a coupling-pin perforation and provided at opposite sides of the same with slots, a coupling-pin, a substantially U-shaped stirrup pivoted at the upper termi-

nals of its sides in said slots, and having its lower portion arranged in advance of the coupling-pin, when the latter is in engagement with the link, and a spring-actuated pin-supporting block mounted in the draw-head in rear of the coupling-pin and provided at its front with a projection, arranged to engage the stirrup and forming a lower recess for the reception of a link, substantially as and for the purpose described.

2. In a car-coupling, the combination of a draw-head, a coupling-pin, a spring-actuated pin-supporting block arranged in rear of the coupling-pin and adapted to hold the same in an elevated position, and an oscillating automatically-operating stirrup located adjacent to the coupling-pin and arranged in advance of the block, and adapted to be engaged by the same, said stirrup being capable of swinging beneath and supporting the coupling-pin when the block is held rearward or inward away from the coupling-pin by a link, substantially as and for the purpose described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ROBERT G. HARDESTY.
JOHN F. HALE.
ROLLA J. WELCH.

Witnesses:

FRANK M. KELLETT,
W. A. GILLETT.