(No Model.)

S. W. WRIGHT.

CAR COUPLING.

No. 456,074. Patented July 14, 1891.

Fig 1

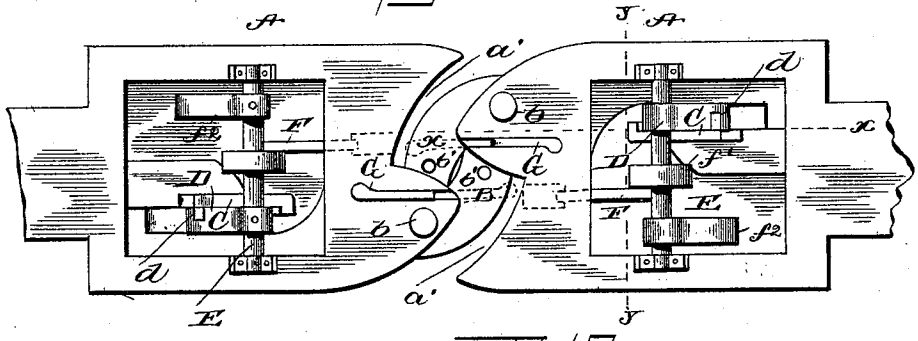


Fig 2

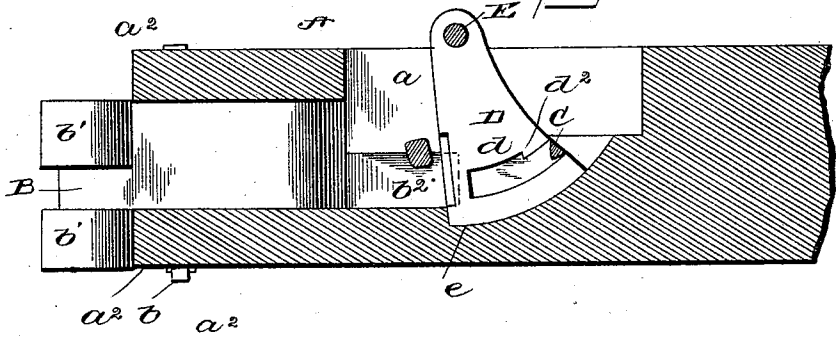


Fig 4

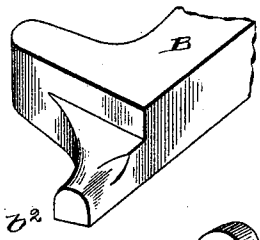


Fig 5

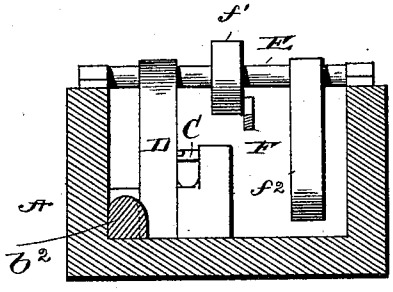
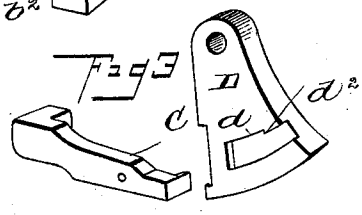


Fig 3



Witnesses

John Imune

Wm. S. Hodges

Inventor

Syrus W. Wright.

By his Attorney

W. B. Symshuw

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SYRUS WASHINGTON WRIGHT, OF EDEN, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 456,074, dated July 14, 1891.

Application filed April 1, 1891. Serial No. 387,241. (No model.)

To all whom it may concern:

Be it known that I, SYRUS WASHINGTON WRIGHT, a citizen of the United States of America, residing at Eden, in the county of St. Clair and State of Alabama, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention pertains to certain new and useful improvements in car-couplings, having for its object the production of simple and highly efficient means by which the locking mechanism will be automatically operated upon the coming together of the two cars, the coupling heads or hooks being unlocked and free to readily engage with each other, after which they are automatically locked or held in position.

The invention comprises a rock-shaft, an arm secured thereto and designed to hold the coupling head or hook, a lever engaging said arm and holding the same retracted, and a movable arm connected to said rock-shaft and with which a projecting arm of a second draw-head is designed to engage to permit the coupling heads or hooks to be free to move and couple with each other.

The invention further comprises the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view showing two coupling heads or hooks engaging each other, the tops of the draw-heads being removed. Fig. 2 is a longitudinal sectional view on the line $x\ x$, Fig. 1. Fig. 3 is a view showing the holding-arm and its lever. Fig. 4 is a detail view of the coupling head or hook. Fig. 5 is a transverse sectional view on the line $y\ y$, Fig. 1.

Referring to the drawings, A designates a draw-head of ordinary construction, having a chamber a and a forward recessed end a', having two parallel ears a^2, between which is pivotally secured the coupling head or hook B, the same being held by a bolt b. This coupling head or hook is provided at its outer forward end with two shouldered ears b', wherein are formed coincident holes through which an ordinary pin may be inserted for engaging an ordinary link placed between said ears b'. The lower ear b' engages the lower ear a^2 of the draw-head, and thus limits the movement of the coupling head or hook. This coupling head or hook has a projection or finger b^2 at its inner rear end, which is designed to engage and trip a holding-lever C, fulcrumed upon a projection d of draw-head A. This lever is designed to work at its inner end in a groove or recess d', formed in one side of a holding-arm D, rigidly secured at its upper end to a rock-shaft E, which latter is journaled in the sides of the draw-head. This arm D is provided with a shoulder d^2, with which the inner end of lever C is designed to engage when said arm is moved rearward, as when the coupling head or hook is free from engagement with said arm, the finger b^2 of said coupling head or hook being held by said arm when the latter is in its normal position. After two cars are coupled together and the coupling head or hook is forced back to its normal position (shown in Fig. 1) the finger b^2 raises the forward end of lever C, and its rear end being disengaged from contact with shoulder d^2 of arm D the latter assumes its normal position in a groove or recess e in the bottom of the draw-head and holds the coupling head or hook firmly locked in position.

F is an arm projected through a hole or aperture f in the upper portion of draw-head A and loosely secured at its rear end to a collar f', fast upon rock-shaft E, and to this shaft is also secured one end of a weight f^2, designed to normally hold the locking mechanism in proper position. To each draw-head is secured a pivoted arm G, which when thrown forward, so as to project beyond the forward end of its draw-head, will coincide with and enter the hole or aperture f of the other draw-head, and, engaging the end of arm F, will force the latter rearward and effect the partial revolution of rock-shaft E, causing the arm D to move rearward and permit the coupling head or hook to turn on its pivot. Immediately upon the lever C engaging the shoulder d^2 of arm D the latter is held in its rearward position until the return movement of the coupling head or hook, when the finger thereof forces the lever C out of engagement

with said shoulder and permits arm D to assume its normal position, and thus lock said coupling head or hook.

From the foregoing description it will be seen that I have provided cheap, simple, and highly efficient mechanism whereby two cars can be readily coupled automatically, the locking mechanism being readily disengaged upon the striking together of two cars constructed with my improved coupling. It will also be observed that the ordinary link-and-pin connection can be employed, as also may the S-shaped link for cars of different height. The mechanism, being composed of but few parts, is not liable to readily get out of order or become deranged.

I claim as my invention—

1. The herein-described improved car-coupling, comprising the coupling head or hook having a rear projecting portion or finger, the locking-arm designed to hold said finger, the rock-shaft to which said arm is secured, and the horizontally-disposed arm connected with said rock-shaft and designed to be operated from an approaching draw-head, as set forth.

2. The herein-described improved car-coupling, comprising the coupling head or hook having a rear projecting portion or finger, the locking-arm designed to hold said finger, having a shoulder on one side, the lever designed to engage said shoulder, the rock-shaft to which said arm is secured, and means for automatically operating said rock-shaft, substantially as set forth.

3. The herein-described improved car-coupling, comprising the coupling head or hook having a rear projecting portion or finger, the locking-arm designed to hold said finger, having a groove or recess and a shoulder on one side, the lever having one end designed to engage said shoulder, its other end being in the line of the rearward movement of the said finger of said coupling head or hook, the rock-shaft, the collar secured thereon, and the horizontally-disposed arm secured to said collar and projected through a hole or aperture in the draw-head, substantially as set forth.

4. The herein-described improved car-coupling, comprising the draw-head, the coupling head or hook having a rear projecting portion or finger, the locking-arm designed to hold said finger, the lever designed to engage and hold said arm when retracted, the rock-shaft, the weight secured thereto, the collar, the horizontally-disposed arm secured to said collar and projected through a hole or aperture in the draw-head, and the arm pivotally secured to the forward end of said draw-head, all arranged substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SYRUS WASHINGTON WRIGHT.

Witnesses:

ROBERT THOMAS COX,

JOHN J. × MITCHUND.
his
mark