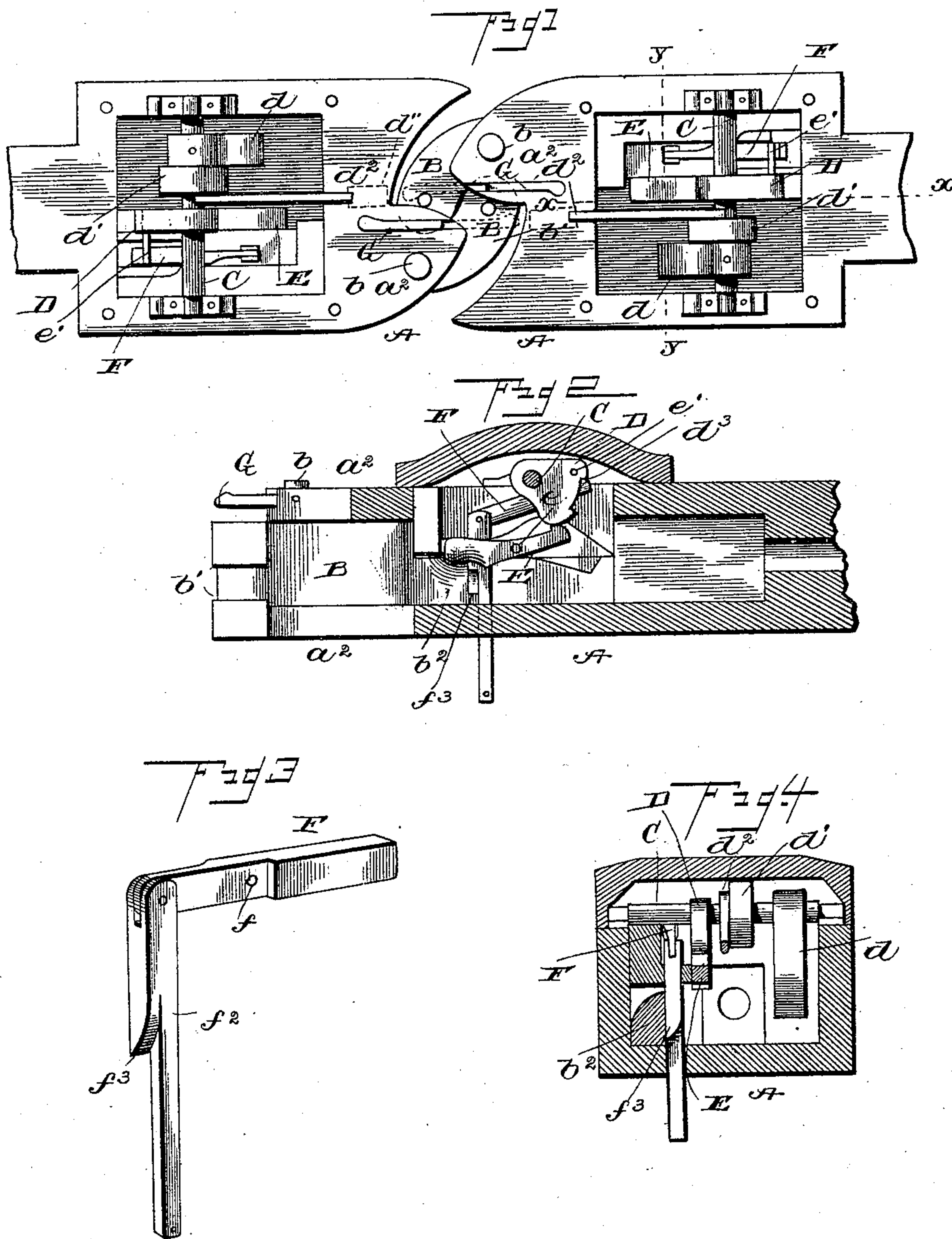


(No Model.)

S. W. WRIGHT.
CAR COUPLING.

No. 454,970.

Patented June 30, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 454,970, dated June 30, 1891.

Application filed April 1, 1891. Serial No. 387,242. (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 improved, simple, and efficient means by which the locking mechanism will be automatically operated upon the coming together of 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, a lever carrying a holding arm or bar and operated by said former arm, a trip and holding lever engaging a shoulder on said latter arm, 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 engage with each other, and a head or hook having a rear projecting portion or finger for engaging said tripping and holding lever.

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 xx , Fig. 1. Fig. 3 is a view of a detail. Fig. 4 is a transverse sectional view on the line yy , Fig. 1.

Referring to the drawings, A designates a draw-head of ordinary construction, having a chamber a and a forward recessed end a' , provided with two parallel ears a^2 , between which is pivotally secured a 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' . This coupling head or hook has a projection or finger b^2 at its inner rear end.

C is a rock-shaft journaled in the sides of draw-head A, and to it is secured a weight d and a collar d' , to which is attached the inner rear end of an arm d^2 , the forward end of which is projected through an upper horizontal hole or aperture d'' in the draw-head.

D is an arm secured to rock-shaft C and provided in its lower widened portion with a recess and a shoulder d^3 , with which is designed to engage the hooked end of a lever E, fulcrumed upon a projection e of draw-head A and having its outer end in the line or path of movement of the finger b^2 of the coupling head or hook. A short rod or finger e' , projecting from one side of arm D, is designed to bear upon the upper side of the rear portion of a lever F, fulcrumed at f and having secured to its forward end the upper end of an arm or bar f^2 , which latter moves vertically in a hole or aperture of the draw-head and is designed to engage and lock the inner projection or finger of the coupling head or hook. This holding arm or bar f^2 is reduced along its center and has an upper curved shoulder f^3 , with which the finger b^2 is designed to engage, so as to elevate said bar or arm out of its line of travel.

In a groove or recess in the forward end of the draw-head is pivotally mounted an arm G, which when thrown forward projects beyond said draw-head and is designed to enter the hole or aperture d'' of the other draw-head, and engaging the end of arm d^2 will force the latter rearward and effect a partial revolution of the rock-shaft, which will cause arm D to turn therewith, resulting in the lowering of the rear end of lever F and the elevation of the holding arm or bar f' , while at the same time the hooked end of lever E engages shoulder d^3 , and thus holds the arm or bar f' elevated, the inner projection or finger b^2 of the coupling head or hook having previously passed beneath the forward end of said lever E. Immediately upon the coupling of the cars the coupling head or hook is returned to its normal position, and in its rearward movement the finger thereof forces or trips lever

E upward, so that its rear end is disengaged from arm D, and the latter, under the action of the rock-shaft, will be turned to its normal position, permitting the holding arm or bar to
 5 move downward, and thus engage and lock the coupling head or hook firmly in position.

From the foregoing it will be seen that by means of my invention two cars can be readily coupled automatically, and that the locking mechanism is easily operated, both prior
 10 and subsequent to the completion of the coupling operation.

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 vertically-moving locking arm or bar designed to hold said finger, the lever to which said arm or bar is secured, the rock-shaft, the arm secured thereto and engaging
 15 said lever, and a 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 or bar designed to hold
 25 said finger, the lever to which said arm or bar is secured, the rock-shaft, the arm secured thereto and engaging said lever, and the trip and holding lever engaging said arm, 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 or bar designed to hold
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said finger, the lever to which said arm or bar is secured, the rock-shaft, the arm secured thereto and engaging said lever and having a
 40 shoulder in its lower portion, the trip and holding lever having a hooked end designed to engage said shoulder, and the horizontally-disposed arm connected to said rock-shaft and designed to be operated from an ap-
 45 proaching 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
 50 portion or finger, the vertically-moving locking arm or bar designed to hold said finger and provided with a curved shoulder, the lever to which said arm or bar is secured, the rock-shaft, the arm secured thereto engaging
 55 said lever and having a shoulder in its lower portion, the lever having a hooked end designed to engage said shoulder and itself to be acted upon by said finger, the collar se-
 60 cured on said rock-shaft, the horizontally-disposed arm connected 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, substan-
 65 tially as set forth.

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

SYRUS WASHINGTON WRIGHT.

Witnesses:

ROBERT THOMAS COX,

JOHN J. ^{his} MITCHUM.
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