

(No Model.)

W. F. MONROE & T. W. CREEK.
CAR COUPLING.

No. 495,983.

Patented Apr. 25, 1893.

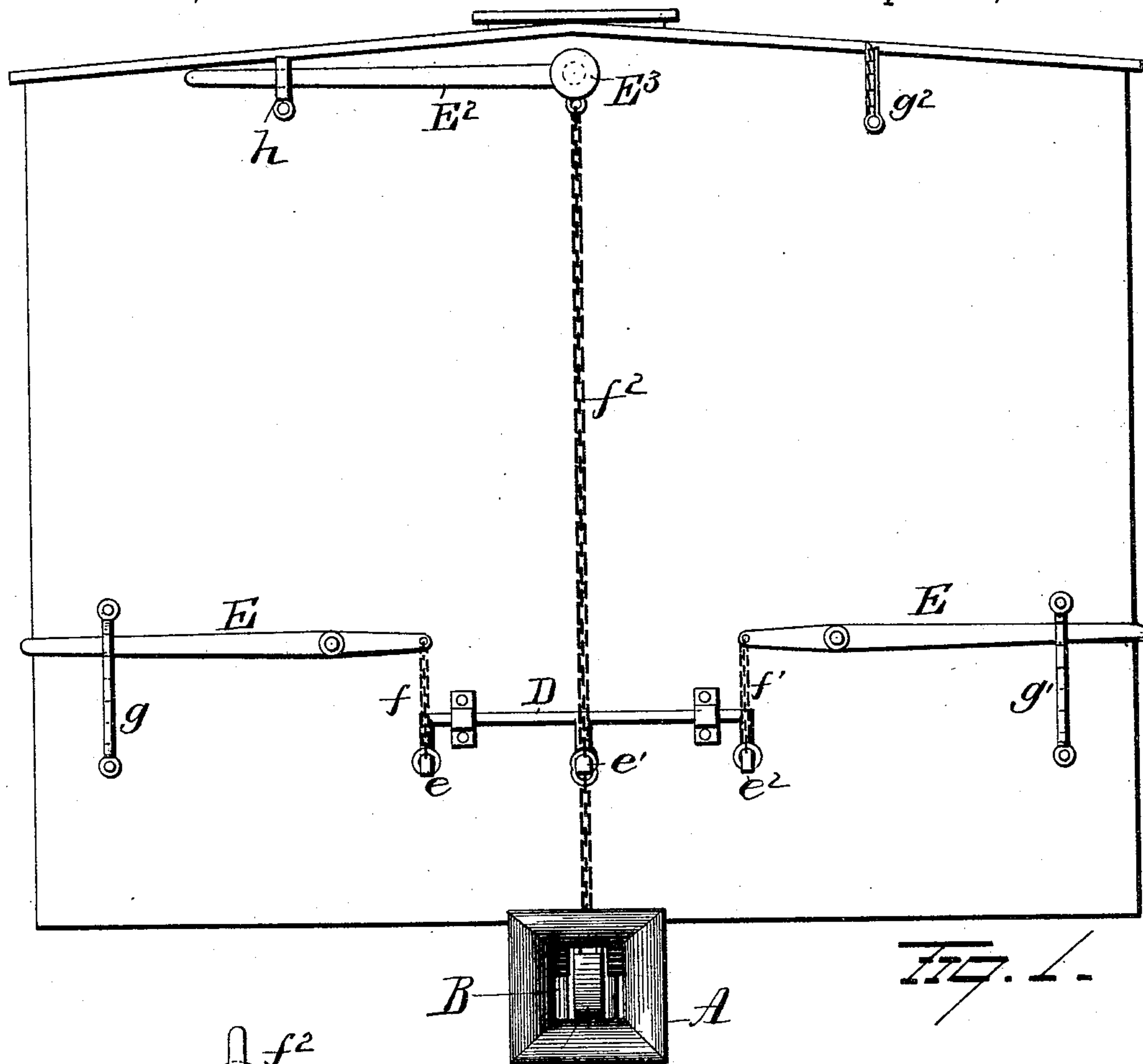


Fig. 1.

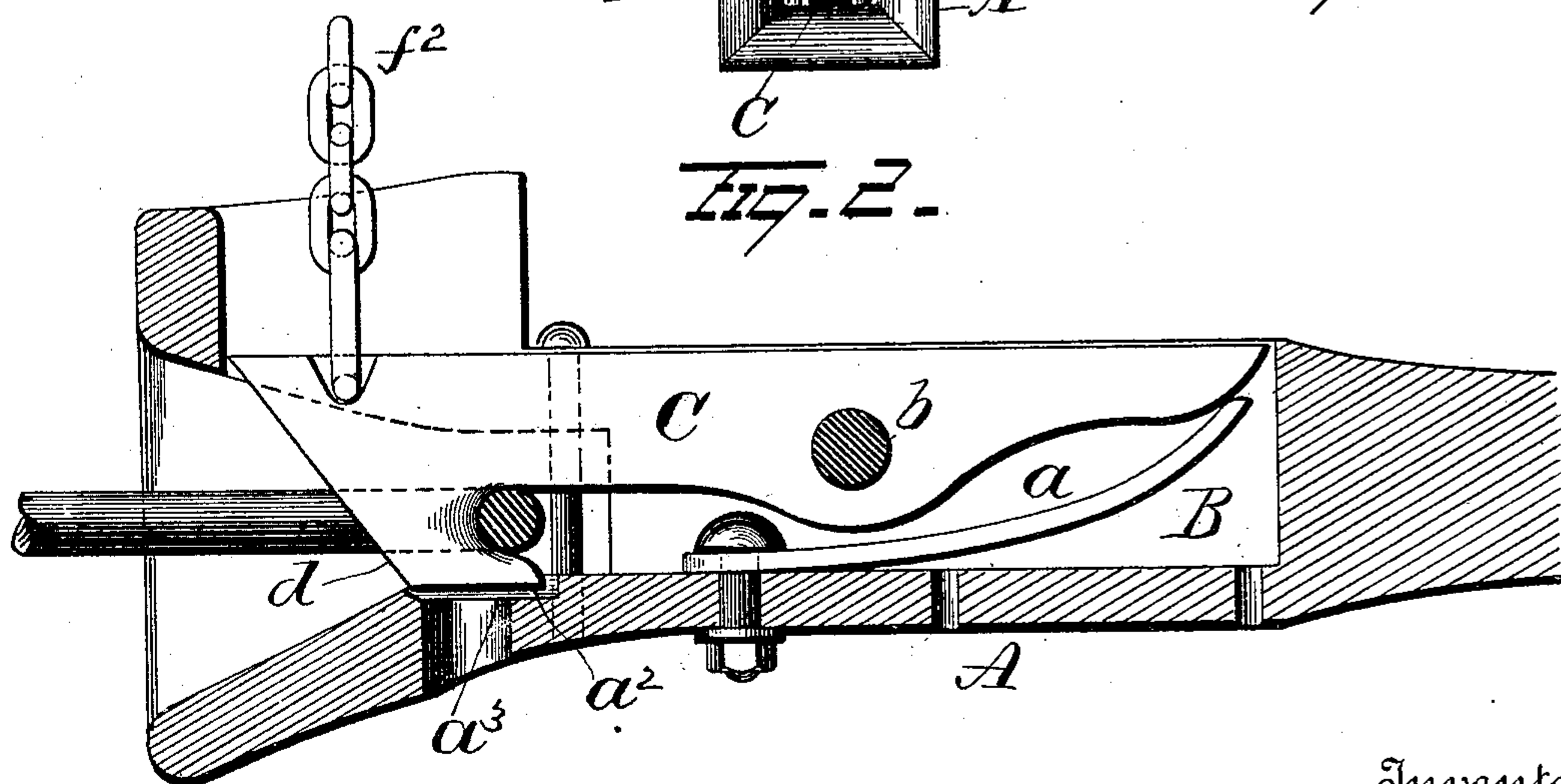


Fig. 2.

Witnesses
E. Nottingham
Harry B. Ames

Inventors
W. F. Monroe
T. W. Creek
P. H. Symmon
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM F. MONROE AND THOMAS W. CREEK, OF ELK HORN, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,983, dated April 25, 1893.

Application filed May 19, 1892. Serial No. 433,614. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM F. MONROE and THOMAS W. CREEK, of Elk Horn, in the county of Taylor and State of Kentucky, have
5 invented certain new and useful Improvements in Automatic Car-Couplings; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which
10 it appertains to make and use the same.

Our invention relates to an improvement in automatic car couplings, and it consists in certain novel features of construction and combinations of parts as will be hereinafter
15 more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is an end view of a car showing the levers for actuating the car coupling, and Fig. 2 is a
20 longitudinal section of the draw-bar.

A represents a draw-bar provided on its upper side with a longitudinal groove B, into which is bolted or otherwise secured a spring
25 a , the rear end of which is free and projects upwardly above the floor of the groove. A coupling hook C is pivotally secured in said groove B by means of a bolt b . The forward or hook end of said coupling hook C is inclined rearwardly from its upper front end
30 while the lower face a^2 of the hook proper is flat, and when in its normal position rests in a recessed seat a^3 formed in the throat of the draw-bar. The free end of spring a when in its normal position rests against the lower
35 face of the shank of hook C at a point back of the bolt b . The toe d of the hook proper also rests in the seat a^3 , and hence when the hook in its normal position with a link therein the possibility of the accidental displacement
40 of the link is avoided.

On the end of the car and a suitable distance directly above the draw bar is pivotally secured a rock shaft D, which latter is provided with arms e, e', e^2 . Secured to the arms
45 e, e^2 are chains f, f' , the opposite ends of which are secured to the shorter ends of the pivoted levers E, E', the longer ends of which are in position to engage rack bars g, g' located on each side of the car. Located at the top of
50 the car and directly over the draw-bar is another lever E² attached to drum E³ which lat-

ter is connected to the rock shaft D and hook C by a continuous chain f^2 or if desired the chain may be in two parts, one end of which is connected to the drum E³ and the opposite
55 end to the arm e' of the rock shaft D, while one end of the other chain is connected to the arm e' and its other end to the hook d . The lever E² when not in use rests on the support h and when it is desired to uncouple a car
60 from the top the lever is thrown into contact with the rack bar g^2 located opposite the rest h . This turns drum E³ and winds chain f^2 thereon.

The side levers E, E' are so located that it
65 does away with the necessity of entering between cars when it is desired to couple or uncouple the same. When it is desired to couple one or more cars, a link is first forced under the coupling hook C and is held therein by
70 the hook in a position to enter an approaching draw-head. The levers on the car to be coupled are released so that the hook C will be in its closed position and the car or cars are then moved until the free end of the link engages
75 and raises the outer end of hook C a sufficient distance to allow the link to enter when the action of spring a on the free end of hook C will immediately cause the inclined end to resume its closed position and thus lock the
80 link against displacement or removal.

By pressing down on either of the side levers a sufficient distance the pivoted ends of said levers are caused to rise and carry with them the chains f, f' which in turn move the
85 rock-shaft D and consequently elevate the arms e, e', e^2 and as the chain f^2 is connected to the arm e' and hook d , it will be apparent that the coupling hook C will be raised and is held in this position by securing the lever
90 in the rack-bar. The car or cars can then be detached. By releasing the top lever from engagement with the support h and throwing said lever into engagement with the rack bar and applying pressure as above described, the
95 chain f^2 will pass around drum E³ thus moving the rock-shaft, which in turn elevates the arm e' , causing the chain f^2 to pull upward on hook h which results in the coupling link being raised a sufficient distance to admit of
100 the insertion of a link.

By the use of an extra long link we can couple

to the ordinary link drawhead and by providing the draw-head with a pin hole H, the ordinary coupling pin can be used therein in the event of injury to the hook C.

5 It is evident that changes in the construction and relative arrangement of the several parts might be made without avoiding our invention and hence we would have it understood that we do not restrict ourselves to the particular construction and arrangement of parts shown and described, but,

10 Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

15 1. The combination with a draw head having a bell mouth with converging lips at top, bottom and sides, and provided with a longitudinal groove in its top, of a hook pivoted within the groove at a point between the ends
20 of the hook, the forward edge of the hook inclining from the inclining upper lip of the

draw head to the hook, and a spring secured in position to bear on the hook to hold it yielding in place, substantially as set forth.

2. In automatic car couplings, the combination with a draw-bar provided with a longitudinal groove, of a spring located therein and a coupling hook pivoted at a point between its ends within said groove, of a chain one end of which is attached to a hook secured to the coupling hook and the other end to the central arm of the rock-shaft, and a series of levers connected to the rock-shaft for actuating same, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

WILLIAM F. MONROE.

THOMAS W. CREEK.

Witnesses:

M. J. ROSENHAUR,

J. H. HAZARD.