(No Model.)

W. H. HATFIELD.

CAR COUPLING.

No. 552,836. Patented Jan. 7, 1896.

Fig. 1.

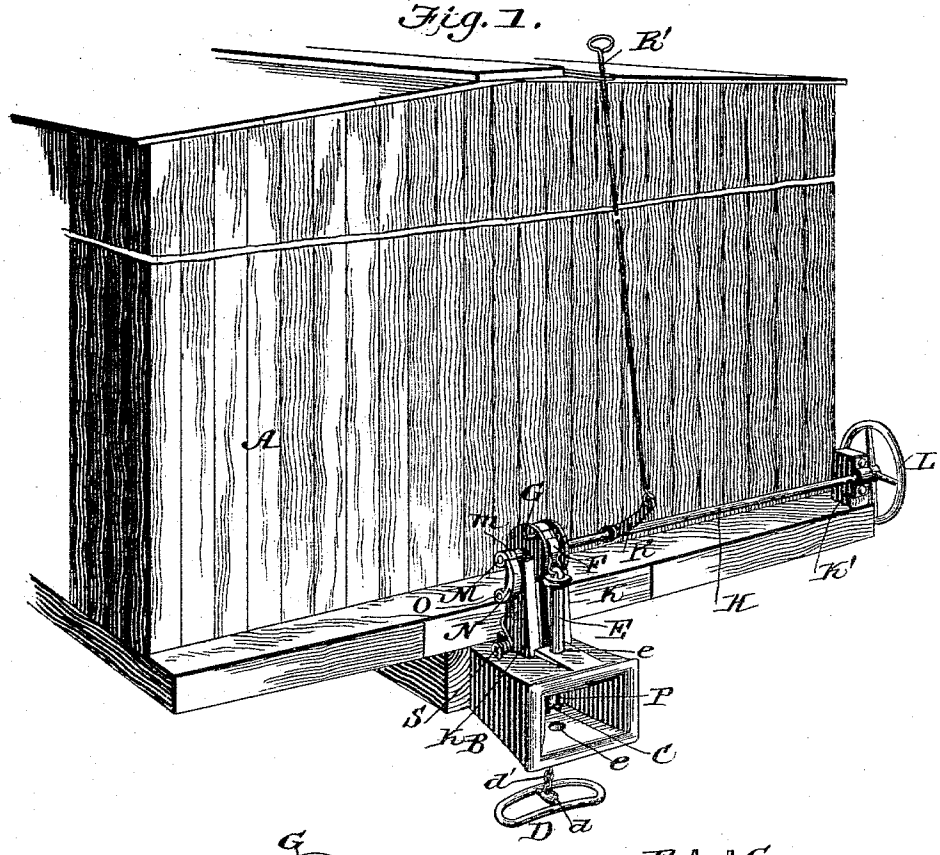


Fig. 2.

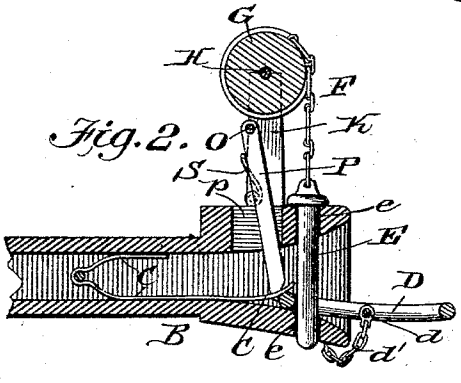


Fig. 3.

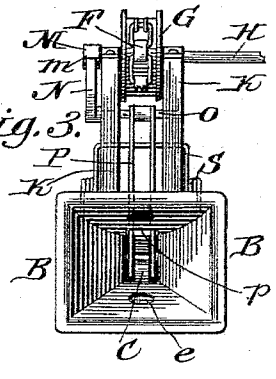
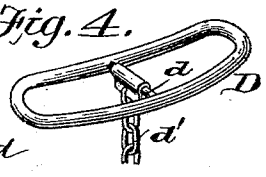


Fig. 4.



WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 552,836, dated January 7, 1896.

Application filed May 11, 1895. Serial No. 549,021. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HATFIELD, of Sulphur Springs, DeKalb county, Alabama, have invented an Improved Car-Coupler, of which the following is a specification.

This invention relates generally to car-couplers, but to classify the same more particularly it may be said to be an automatic coupler of the pin-supporting type.

The objects of my invention are to provide a coupler of this class which shall be simple in construction, efficient in operation, and one which can be operated either from the top or side of car without necessitating the presence of the operator between the cars.

Another object is to provide means for holding the link in an operative position, to facilitate the automatic coupling of the cars.

With these and such other objects as will appear hereinafter, my invention consists in the peculiar construction of the various parts, and their novel combination or arrangement, all of which will be fully described hereinafter, and pointed out in the claim.

In the drawings forming a part of this specification, Figure 1 shows the end of a car provided with my improved coupler. Fig. 2 is a longitudinal section of the coupler. Fig. 3 is a front view of the same, and Fig. 4 is a detail view of the link.

Referring now to the drawings, A indicates the usual form of car, and B the draw-head, which in general construction is the same as most draw-heads used with pin-and-link couplers, and it is also attached to the car in any well-known manner. Located within the draw-head and secured thereto at its rear end is a spring-tongue C, the purpose of which is to hold the link D in a horizontal position to facilitate the automatic coupling of the cars.

The pin E is of the usual form and construction and works in the pin-holes *e*, and at its upper end is attached a chain F, which in turn is connected with a drum-section G, mounted upon a shaft H, which is journaled in uprights K K, extending upward from the draw-head and the upright K′ on the end of the sill. The shaft H has a hand-wheel L at its outer end, by means of which the drum-section is operated, the chain wound thereon, and the pin elevated to uncouple the cars. Upon the inner end of the shaft H is mounted a disk M, having a tooth *m*, which is adapted to be engaged by a pawl N, mounted upon the end of a bar O, journaled upon the uprights K K at a point below the shaft H. Connected with the bar and depending therefrom is the trip-lever P, which passes down between the uprights K, through a slot *p* in the top of draw-head, and extends to nearly the bottom of draw-head. This lever could be made single or in one piece if desired, but in practice I prefer to make the same double, so it can straddle the spring-tongue C and thus rest at the center of the draw-head.

A spring-frame S is mounted upon the top of draw-head, so that its top member presses directly upon its upper portion of the lever P, the purpose of which is to normally hold the pawl in engagement with the toothed disk, thus supporting the pin and also projecting the lower end of said lever into the path of the entering link.

R indicates an arm attached to shaft H, and R′ a rod extending to the top of car.

The links D have each a cross-bar *d*, to which is attached a chain *d*′, by means of which the links are attached to the car and are prevented from being lost or displaced.

Now in operation, when the hand-wheel at the side or the rod at top of car is operated, the pin is raised, and the spring-frame, pawl, and lever serve to lock said pin in this position. When a link is inserted into the draw-head it passes beneath the spring-tongue and is held in a horizontal position. In so passing into the draw-head, the link strikes the lower end of the trip-lever P, forcing the said end back, rocking the bar O, and releasing the pawl N from engagement with the toothed disk, and the pin drops by its own weight, and the drum-section turns by its own weight. The pin thus drops through the link, which is held in a position ready for coupling. As two cars are brought together, the link will enter the empty draw-head, press back its lever P, and drop its pin, automatically effecting the coupling.

When it is desired to uncouple, either pin can be raised, either from the top or side of car.

It will thus be seen that I provide a novel

form of automatic coupler, including the automatic pin-supporter and the link-holder, and also so construct said parts that they can be operated from either the top or side of car.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a car coupler, the combination, with the draw-head and pin, the spring tongue, the drum section and chain, the toothed disk *m*, and locking pawl, the operating shaft, the depending lever and spring frame, all arranged substantially as shown described.

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

WILLIAM H. HATFIELD.

Witnesses:
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J. A. SITTON.