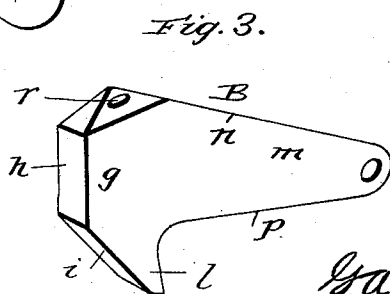
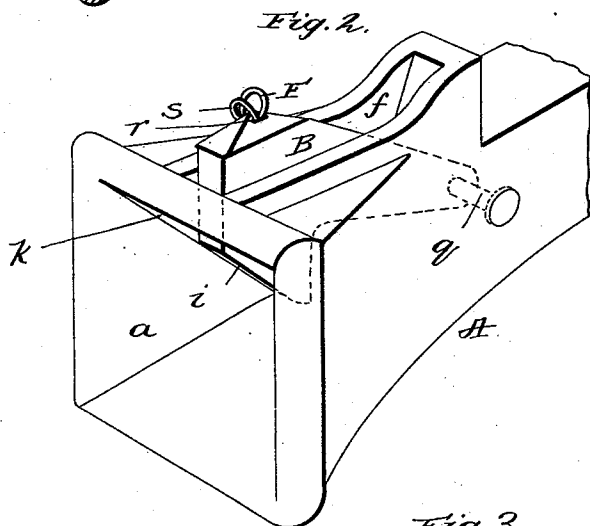
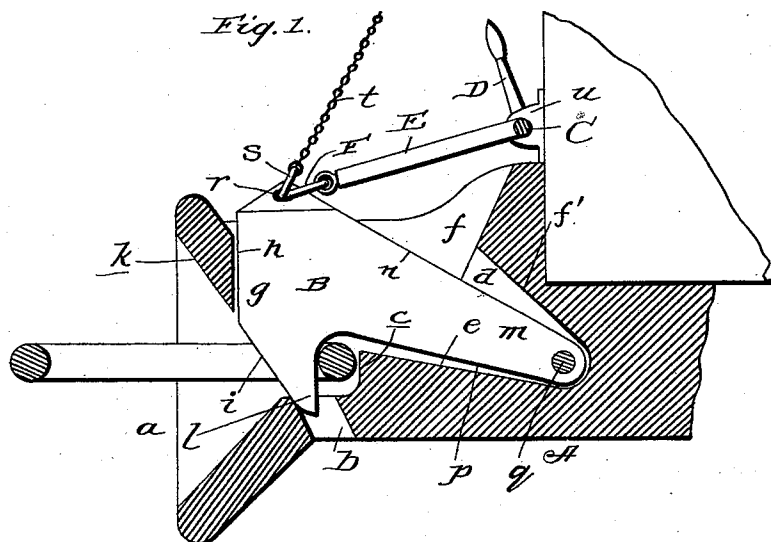


(No Model.)

G. A. THEOBALD.
CAR COUPLING.

No. 522,439.

Patented July 3, 1894.



Witnesses:

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UNITED STATES PATENT OFFICE.

GUSTAVE A. THEOBALD, OF NEW ORLEANS, LOUISIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 522,439, dated July 3, 1894.

Application filed February 3, 1894. Serial No. 498,964. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE A. THEOBALD, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Car-Couplings; and I do 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 it appertains to make and use the same.

This invention has relation to an improvement in that class of car couplers, in which a gravitating coupling hook is employed for automatically engaging the coupling link, and it has for its object to improve such devices by simplifying the construction, rendering them more effective in operation and to provide a cheap and efficient means in connection with the coupling hook whereby the dangerous necessity of going between the cars to couple and uncouple, is obviated; the coupling hook being provided with attachments whereby an attendant may operate the couplers from either side of a car or from the top without dismounting.

The invention will be fully understood from the following description and claim when taken in connection with the annexed drawings, in which—

Figure 1, is a longitudinal, vertical, sectional view of a draw head with the other parts in side elevation and attached to a fragment of a car. Fig. 2, is a perspective view of the draw head and the improved coupling hook, and Fig. 3, is a perspective view of the coupling hook removed.

Referring by letter to said drawings:—A, indicates a draw head, which may be mainly of the ordinary construction, having a flaring mouth *a*, for the entrance of the coupling link, and in the bottom wall of the throat of the draw head, is a vertical aperture *b*, for a purpose which will presently appear. In rear of this aperture *b*, is a vertical shoulder *c*, and the interior of the draw head from this shoulder in its base wall has a rearwardly extending recess *d*, the lower or base wall of which slopes or inclines as shown at *e*, and the top wall inclines in an opposite direction, as shown at *f'*. In the top wall of the draw head is a longitudinally-disposed slot *f*, for the passage of the coupling hook.

B, indicates the coupling hook. This coupling hook is of a peculiar construction having a weighted or enlarged head *g*, a straight forward wall *h*, and a forward beveled or inclined wall *i*. This wall *i*, is beveled or constructed at an angle corresponding with that of the top wall *k*, in the mouth of the draw head, so as to practically form a continuation of said wall of the draw head and thereby permit the ready entrance of the coupling link, which will lift the coupling hook in its entrance. This hook has an engaging branch *l*, which is designed to enter the aperture *b*, in the base or lower wall of the draw head. The hook has a rearwardly extending branch *m*, which is beveled on its top, as shown at *n*, and has a lower wall *p*, and is pivoted at its extreme inner end in the recess *d*, by means of a pin or rod *q*. By this construction it will be seen that as a coupling link enters the draw head, it will strike the under bevel of the hook, and raising the same, will pass under the branch *l*, coming in contact with the shoulder *c*, when the branch *l*, will immediately pass into the slot of the coupling link and hold the same. As the coupling link strikes the bevel on the coupling hook, and throws the latter upwardly in the slot *f*, the wall *n*, of said hook, will strike the wall of the recess in the draw head, and limit the upward movement of said hook, thereby throwing the hook quickly into the coupling pin as it enters the draw head. In order that the coupler may be operated from the top of the car, I have provided the hook at its upper, forward end, with an eye *r*. In this eye is arranged a link or ring *s*, and from the ring leads a chain *t*, which may be attached to any suitable devices at the top of the car, whereby an attendant may manipulate the hook from that point.

C, indicates a rock shaft, which is journaled in suitable bearings *u*, on the front side or end of a car, and is provided at both ends with a handle or lever D, whereby the shaft may be rocked by an attendant, without going between the cars. From the middle of this rock shaft extends a crank arm E, which is connected at its outer or free end by means of a link F, with the eye in the forward upper side of the coupling hook.

By the construction described, it will be seen that the operation may be effected auto-

atically to couple, and the uncoupling may be effected from the top of a car or from either side. It will also be seen that from any cause, should it be desirable to use the ordinary
5 coupling pin and link, the gravitating hook and its attachments can be removed, when the pin can be passed through the slot in the top of the draw head and down through the aperture *b*, in the bottom.

10 Having described my invention, what I claim is—

In an automatic car coupling, the draw head, having the flaring mouth, and constructed as described, with the slot *f*, in its top, the aper-
15 ture *b*, in its bottom, and also having the rearwardly extending recess, provided with the inclined top wall *f'*, and the bottom wall *e*, and also having the shoulder *c*, in rear of the bottom aperture, in combination with the gravi-

tating coupling hook, having the weighted, 20 forward end, provided with the straight wall *h*, the beveled wall *i*, disposed on the same angle as the top wall of the mouth of the draw head, and also having the hook *l*, adapted to enter the aperture *b*, and the rearwardly ex- 25 tending branch *m*, pivoted in the rear end of the recess by a pin *q*, the rock shaft *C*, having an operating handle and also having the crank arm *E*, connected with the forward upper end of the hook by the link *F*, and the 30 chain also connected thereto by a link, substantially as specified.

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

GUSTAVE A. THEOBALD.

Witnesses:

CHAS. GARVEY,
ARTHUR CLIMO.