(No Model.)

G. S. GAINES.

CAR COUPLING.

No. 490,958. Patented Jan. 31, 1893.

Fig. 1.

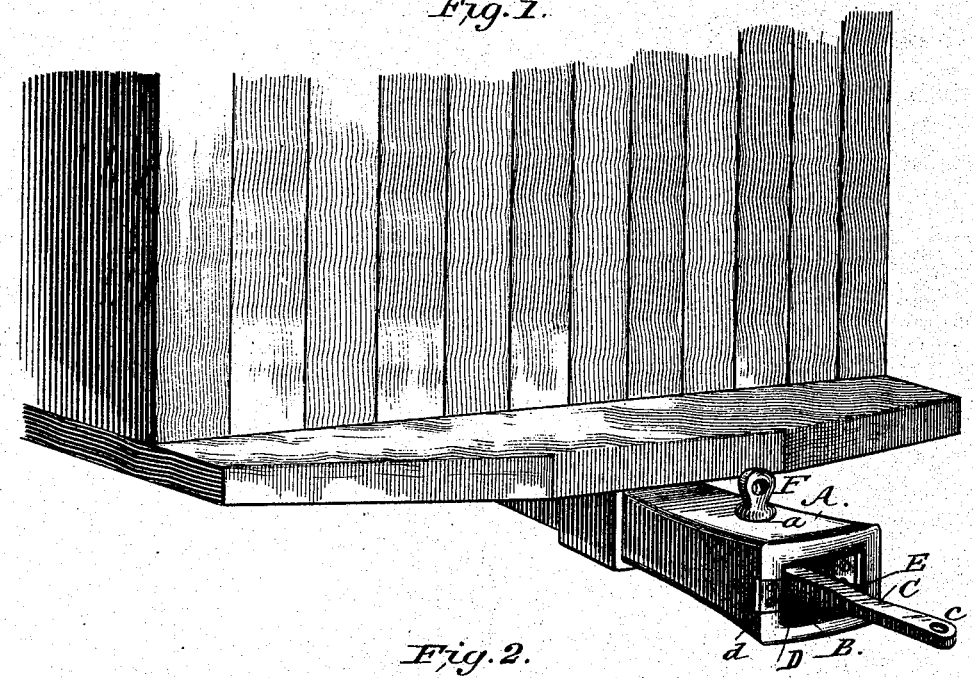


Fig. 2.

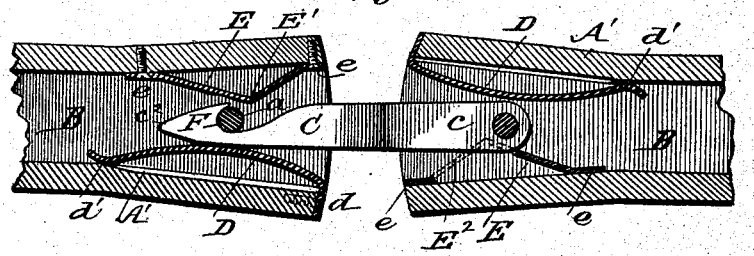


Fig. 3.

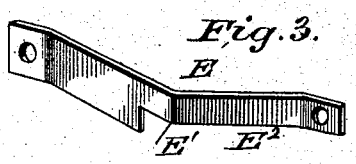
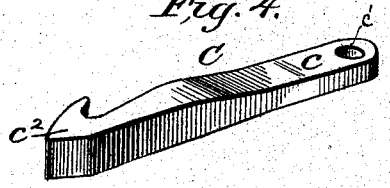


Fig. 4.



WITNESSES:

Fred G. Dieterich

Jos. A. Ryan

INVENTOR

George S. Gaines

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE S. GAINES, OF CORONA, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 490,958, dated January 31, 1893.

Application filed September 15, 1892. Serial No. 446,032. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. GAINES, residing at Corona, in the county of Walker and State of Alabama, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to automatic couplers and refers more particularly to improvements on the coupling devices shown in my patent No. 425,167 dated April 8, 1890; and it consists in the novel features of construction and peculiar combination of parts hereinafter fully described and pointed out in the claims, reference being had to the accompanying drawings in which

Figure 1 is a perspective view of my improved car coupler. Fig. 2 is a horizontal section of two drawheads with my improvements applied, coupled together. Fig. 3 is a detail view of one of the fender sections detached and Fig. 4 is a similar view of the coupling link.

In my other patent referred to, swinging fenders are provided which are adapted to guide the arrow head coupling link between the pin and a spring bearing plate which serves to hold such link to its coupled position. In such construction the fender plates, have a hinged connection with the front end of the drawhead, whereby they can be swung out of position, to the outside of the drawhead, such arrangement being necessary to permit the pivot end of the coupling link to have lateral play.

I have found in practice that hinging the fender plate to the drawhead, is objectionable in that the hinged connection soon becomes broken, by regular use, and when thrown out, to one side of the drawhead, is capable of being broken off. To overcome these objections and to provide a fender plate rigidly held in the drawhead, and which will effectively serve for the purpose intended is the object of the present invention.

Referring to the drawings, the drawhead A is of the usual construction, except that its link mortise B is extended rearward beyond the coupling pin apertures *a a* to admit of a free movement of the coupling link C, the particular construction of which will be presently described.

To one wall of the drawhead is secured a yielding bearing plate D, of spring steel, the outer end of which is bent laterally, seated in a recess, and secured to the front edge of the said drawhead as at *d*, its inner end having a free bearing end *d'*, which plays on the wall A' of the head as shown.

E indicates the fender, which in the present case consists of a plate bent to the form shown, which is rigidly secured at its ends *e e* in the mortise B opposite the bearing plate D.

It will be noticed by reference to Figs. 2 and 3 that the apex or outer bent portion E' of such fender is at a point just in advance of the coupling pin F and the front end of such fender has its lower portion cut out as at E^2, such cut out portion extending to a point to the rear of such pin, forming a recess at the front end of the fender at its lower edge.

The coupling link C has its rear or pivot end reduced as at *c*, in which end is the pin aperture *c'* through which the coupling pin passes, while its front end has an arrow coupler head c^2 which head is of a thickness in height greater than the recess formed in the fender, while its rear or pivot end is of a thickness in height somewhat less than such recess. By this construction it will be seen that the rear end of the link will have free lateral play, in that the recess in the fender extends to rear of the pivot of such link, and as its coupling head is thicker than such recess it will be guided by the fender toward the pin. It will also be seen that by arranging the apex or bent edge of the fender slightly in advance of the pin the link head will be guided to pass such pin and engage the yielding or spring plate D.

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

1. In a car coupling, in combination, the draw, head, the coupling pin, a yielding plate at one side of the pin, a fixed fender or guide on the opposite side, having its lower front edge cut out to form a recess, and the link having a reduced rear end adapted for movement in said recess, and an enlarged head portion adapted to engage the fender at a point above such recess all as and for the purposes described.

2. In combination with the drawhead A, having the usual mortise B, and the pin C, of

the yielding bearing plate D at one side of the pin, the outwardly bent fender or guide plate on the opposite side, having its outermost portion at a point in advance of the pin, a cut out portion on its lower front edge extended to a point to the rear of the pin, the link having its rear pivotal end reduced, and movable in said recess, and a coupling hook at its front edge adapted to engage said fender at a point above its recess, substantially as described.

GEORGE S. GAINES.

Witnesses:
J. F. BRADFORD,
THOS. D. WHITE.