(No Model.)

T. HEARD.

CAR COUPLING.

No. 489,952. Patented Jan. 17, 1893.

Fig. 1.

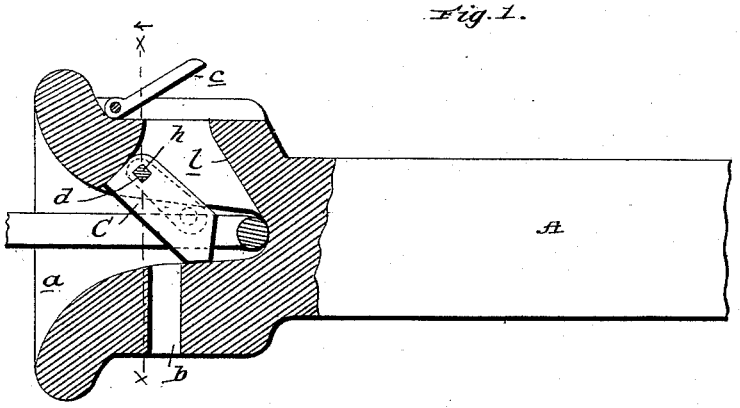


Fig. 2.

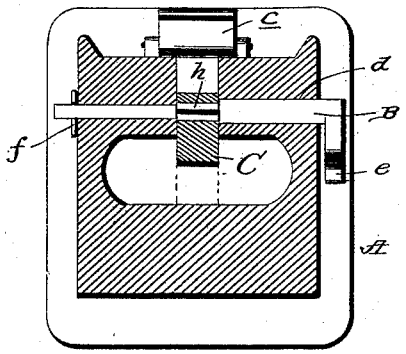


Fig. 3.

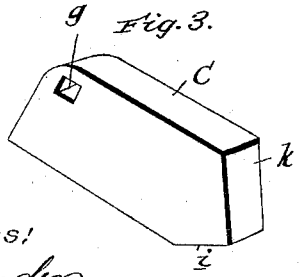
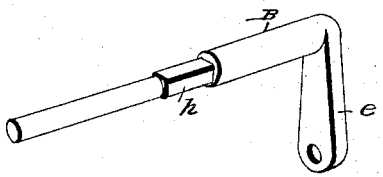


Fig. 4.



Witnesses!
C. H. Raeder
W. F. Matthews.

Inventor
Thomas Heard
By James J. Sheehy
Attorney

UNITED STATES PATENT OFFICE.

THOMAS HEARD, OF ST. THOMAS, CANADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 489,952, dated January 17, 1893.

Application filed November 5, 1892. Serial No. 451,059. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HEARD, a citizen of Canada, residing at St. Thomas, in the county of Elgin and Province of Ontario, Canada, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention has relation to improvements in car couplings and among other things it has for its object to provide an automatic coupling device which may be used on the usual or well known type of draw head.

A further object of the invention is to adapt the improvements for ready removal and replacement in a draw head so that when found desirable the ordinary pin and link coupling might be employed and the automatic devices removed; the parts being simple and durable and may be employed in connection with draw heads such as at present in use or upon heads of any improved pattern; it requiring but a slight alteration in the old heads to apply the attachment.

Other objects and advantages will appear from the following description and claim when taken in connection with the annexed drawings in which:

Figure 1, is a side elevation of a portion of a draw head and partly in section so as to illustrate my improvements applied thereto. Fig. 2, is a vertical transverse sectional view taken in the plane indicated by the dotted lines *x*, *x*, on Fig. 1. Fig. 3, is a perspective view of the latch for automatically effecting the coupling, and: Fig. 4, is a perspective view of the operating rock shaft.

Referring by letter to said drawings: A, indicates a draw head of the type usually employed in what is known as the pin and link coupling, having the flaring mouth *a*, and the vertical pin aperture *b*. The top of the pin aperture is preferably enlarged as shown and said aperture is covered by means of a hinged plate or cap *c*, which normally closes said aperture and is designed for use when the coupling pin has been discarded and the automatic device is used. The draw head is provided at a suitable point above the mouth or link receiving portion with a transverse aperture *d*, within which is placed a removable operating rock shaft B. This rock shaft is provided at one end with an angular branch *e*, which is designed to be weighted so that said branch will be normally held in a depending manner on one side of the draw head. The rock shaft which has its bearing in the transverse aperture of the draw head, is mainly of a circular form in cross section and may be secured in position by means of a pin *f*, at one end, or other suitable fastening device.

C, indicates a gravitating latch which is designed to receive and hold the coupling link within the draw head. This latch may be of a form, substantially as shown, and is designed to be removably fixed to the rock shaft B. This is preferably accomplished by having the latch provided near one end with an angular aperture *g*, and the rock shaft provided at a suitable point in its length with an angular seat *h*, to receive said angular aperture. The latch is placed upon the shaft in such a manner that by the weighted branch *e*, of said shaft, having a tendency to fall it will hold the inner beveled end *i*, of said latch down upon the base or floor in the throat of the draw head and assume an oblique position as shown in Fig. 1. The inner end of the latch is also preferably beveled in an opposite direction as shown at *k*, so that it may strike the beveled wall *l*, of the draw head and prevent the latch from rising too high or failing to quickly seat itself after the link has been introduced.

From the construction described it will be seen that the coupling is automatic. When the link is introduced, by an abutting car or otherwise, it will strike the latch in its forward face below its pivotal point and lifting the same will pass beyond it, while the gravitating arm upon the rock shaft will quickly draw down said latch upon the base or floor in the throat of the draw head and said latch will enter the eye of the link.

To uncouple it is simply necessary to manipulate the weighted branch of the shaft, so as to lift the gravitating latch. This may be done by the attendant grasping the weighted branch of the shaft and lifting it, or said branch may be so connected with hand levers that it may be manipulated without going between the cars, or in box cars it may be provided with rods and levers whereby the

uncoupling may be effected from the top of the car. The cap or cover over the pin aperture will serve effectively in excluding snow, rain and the like when the automatic coupling device is used, while it will not be in the way when the pin and link coupling is used. To use the ordinary pin and link coupling it is simply necessary to unfasten the rock shaft at one end and draw it out of the head which will disconnect the latch therefrom, and the latter being taken out and a pin placed in position, the device is ready for use.

Having described my invention what I claim is:

The combination of the draw head having the pin aperture and also having a transverse aperture, the cover pivoted to close the pin aperture, the rock shaft arranged in the transverse aperture and the gravitating latch secured to said shaft, substantially as specified.

THOMAS HEARD.

Witnesses:
J. Z. LONG,
J. HEARD.