

(No Model.)

H. RESLEY.
CAR COUPLING.

No. 510,291.

Patented Dec. 5, 1893.

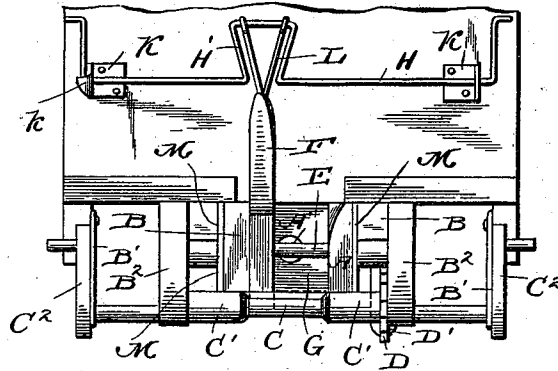
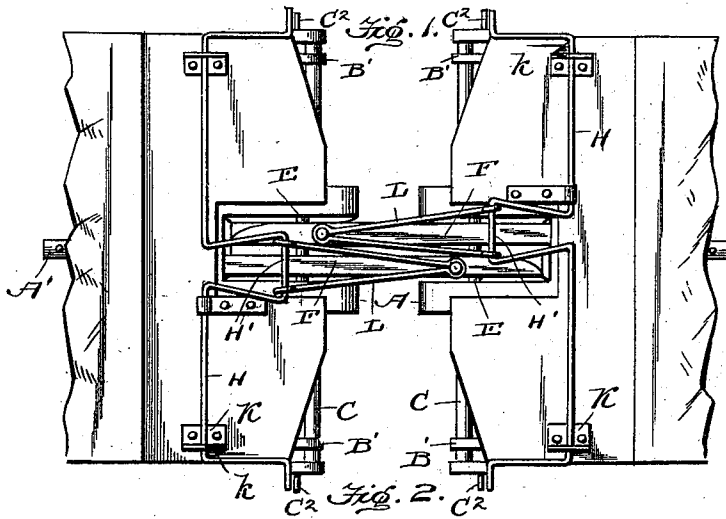
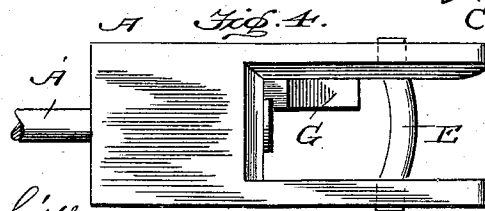
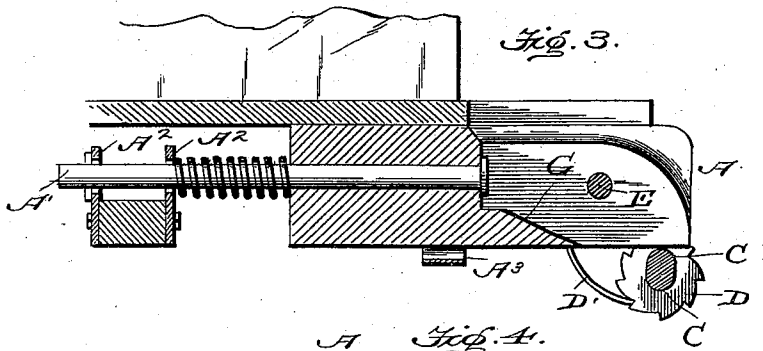
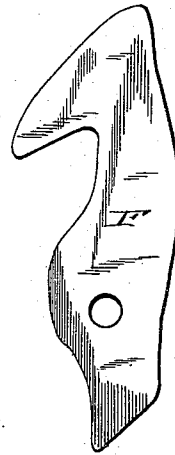


Fig. 5.



Witnesses

Wm. C. Oshier
Arthur Bryant

Horace Resley.
Inventor

BY Edmond D. Wood

Att'y's.

UNITED STATES PATENT OFFICE.

HORACE RESLEY, OF CUMBERLAND, MARYLAND.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 510,291, dated December 5, 1893.

Application filed August 23, 1893. Serial No. 483,828. (No model.)

To all whom it may concern:

Be it known that I, HORACE RESLEY, a citizen of the United States, residing at Cumberland, in the county of Allegany and State of Maryland, have invented certain new and useful Improvements in Car-Couplings; and I 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 it appertains to make and use the same.

My invention relates to car couplings and it consists in the peculiar construction and arrangement of parts as will be hereinafter fully pointed out and claimed.

In the accompanying drawings—Figure 1 is a plan view of a portion of two cars provided with my improved coupling. Fig. 2 is an end elevation of one of the cars. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail plan view of a drawbar and head. Fig. 5 is a detail view of one of the coupling hooks.

Like letters of reference denote corresponding parts in all the figures of the drawings, referring to which—

A designates a bifurcated draw head which is provided with a rearwardly extending draw bar A'. The bar A' extends through plates A², attached to the frame of the car and said bar is further supported by a hanger A³. The drawhead and bar are, preferably, arranged between parallel sills, B, of the frame of the car, and to such sills are attached depending hangers, B', which are provided at their lower ends with aligned bearings to receive a transverse horizontal shaft C. The shaft C, which is fitted in the bearings in the hangers B', and similar aligned bearings in depending arms or hangers, B², attached to the side sills of the car frame, is provided with two cam surfaces C', which contact with and support the drawhead A. The shaft, C, is provided at its ends with suitable cranks or handles, C², by which said shaft can be rotated in its bearings and the drawhead raised or lowered according to the position of the cams on said shaft.

On the shaft, C, is secured a ratchet, D, and a pawl, D', attached to the car frame engages with said ratchet to hold the shaft against movement in that direction. The ratchet, D, is preferably made in the same form as the cross sectional form of the cams C', but is re-

versely secured on the shaft so that the widest portion thereof is on the opposite side of the shaft from the widest portion of the cams. The opposite sides of the drawhead A are connected by a transverse longitudinally curved bolt or pin, E. On the bolt E is fulcrumed a coupling hook, F. The upper surface of the hook F from about the fulcrum point thereof to the rear end is inclined and, when the hook is in use, said beveled or inclined surface contacts with the solid portion of the draw-head.

Within the drawhead, at the rear end thereof and at one side of the hook therein, is arranged a guide block, G, the upper surface of which is inclined or beveled from near its rear end to its forward end in order to allow the hook on another car to move freely down within the draw-head and engage with the curved bolt E as the cars come together.

A hook operating shaft, H, is journaled in bearings formed in plates, K, which are attached to the end wall of the car or the platform thereof; and said shaft, which extends substantially the entire width of the car, is provided at its ends with cranks by which it can be rotated in its bearings. The shaft, H, is bent at an intermediate point of its length to form a projecting portion H' which is connected by means of a connecting rod or rods, L, with a lug or pin on the coupling hook F. The connecting rods L serve to maintain the coupling hook in position. By rotating the shaft, H, the coupling hook connected therewith can be raised, as shown in Fig. 3 of the drawings, and, if it is desired to maintain the hook in such position, the shaft, H, is moved longitudinally in its bearings until one of the handles or cranks thereof rests against a lug or ear, k, on one of the bearing plates K. The hook will be secured in this elevated position when two cars are coupled by the hook on one car and a link and bolt on the other as used at present. On the inner faces of the sills, B, are arranged wearing plates, M, which serve to prevent said sills from being worn by the action of the drawhead thereon.

The operation of my improvements may be briefly stated as follows:—When it is desired to couple two cars provided with my improved coupling the drawheads are adjusted, by means of the shafts C, to bring them into the same

horizontal plane. As the cars come together the forward beveled or curved ends of the coupling hooks will ride up over the rods E and the hooks take a firm hold on said rods. 5 By reason of the rods E being curved longitudinally the coupling hooks are allowed to move laterally a slight distance to accommodate themselves to the positions of the cars in rounding curves, and thus equalizes the strain on the hooks. 10

In case it is desired to use but one coupling hook the hook on the other car can be maintained in an elevated position, clear of the opposite drawhead, by the means described.

15 The drawhead can be easily and quickly adjusted vertically to enable cars, whose drawheads are of different heights, to be coupled.

It will be noticed that the coupling hooks are fulcrumed below the line of draft when in use whereby the tendency of the hook to rise up under the effect of a sudden jolt of the train, is overcome. The rear ends of the coupling hooks bear against the lower side of the solid portion of the drawhead and thus a 20 portion of the strain is taken from the rods E.

25 From the foregoing description and the drawings, it will be seen that I have provided a simple, safe, and easily operated coupling in which the elevation of the drawhead can

be easily changed. As the person employed 30 to couple and uncouple the cars stands at the side of the car he runs no risk of life or limb, as is the case with all car couplings now in use where the employé is obliged to stand between the cars. 35

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

1. In a car coupling, the combination with a vertically movable drawhead, of a trans- 40 verse shaft journaled in bearings below the drawhead and having cam surfaces adapted to contact with the drawhead as the shaft is rotated, a ratchet fitted on said shaft, and a pawl engaging with said ratchet to prevent 45 movement thereof in one direction, substantially as and for the purpose described.

2. In a car coupling, the combination with a bifurcated drawhead, of a longitudinally curved rod connecting the sides of the draw- 50 head, and a coupling hook fulcrumed on said rod, substantially as described.

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

HORACE RESLEY.

Witnesses:

W. H. HAMILTON,
J. H. ROBERTS.