

UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 499,491, dated June 13, 1893.

Application filed March 14, 1893. Serial No. 465,944. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. YATES, of Bucoda, in the county of Thurston and State of Washington, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention is an improved car coupling seeking to provide a simple, novel construction which will avoid the danger of mashing fingers and hands, will permit the coupling to higher or lower cars and will permit the convenient coupling with an ordinary draw head as well as with another similar improved coupling and the invention consists in the novel constructions and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a perspective view; Fig. 2 a sectional view. Fig. 3 is a top plan view part in section and Fig. 4 shows the devices for operating the coupling from the side of the car.

The improved coupling comprises what for convenience of reference may be termed the draw bar A and the rocking drawhead B, each of which will be described in detail.

In practice the drawbar A is secured to the car frame. It may be in the usual manner so that such drawhead may swing laterally at its front end to permit the easy rounding of curves the latter operation being also aided by the special construction of the link as hereinafter described.

The drawbar is formed with a main section A' and a side section or plate A² the front end of plate A² and the extension of section A' forming jaws a between which the drawhead B is pivoted, said jaws a being provided with bearings a' for the trunnions of the drawhead. The side section A² is bolted firmly to the section A' and forms when so secured practically a part of said section as will be readily understood. The front end of the main portion of the section A' is inclined rearwardly toward its upper side such inclined wall a² permitting the rocking of the drawhead as desired and a vertical wall a³ extends for a short distance from the lower end of wall a². At one side the drawbar has a perforated lug a⁴ which forms a holder for the coupling pin C when the latter is not in use.

The drawhead B is supported to rock hori-

zontally between the jaws of the drawbar being provided at its opposite sides with trunnions b fitting in the bearings a' of the jaws a. This drawhead has the upper and lower walls b' b² forming the link mortise and which are connected for a short distance from the rear wall b³ by the webs b⁴ which operate to brace them, said walls b' b² being perforated at b⁵ for the coupling pin.

At the front end of the upper wall of the drawhead I provide an upwardly projected wall or flange D which is provided with a perforation d made smaller than the pin holes b⁵ and adapted to receive the tenon C' at the lower end of the pin C, such tenon being formed so that when the pin is used as a handle to rock the drawhead it will not be slipping down but will be held firmly in its place. As will be seen from the drawings the pin may be inserted in the hole d and form a convenient handle for rocking the drawhead without any danger of the operator's hand being mashed or otherwise injured.

Depending from the body of the drawhead and at right angles to its link mortise is the link E formed integral with the drawhead and made at its outer end similar to a coupling link but having its outer edges recessed or curved at e to give more lateral play in rounding a curve as will be readily understood. It will be seen that the drawhead may be rocked to present either its link or its mortise so that it may properly couple with an approaching car whether the latter has an ordinary drawhead or a drawhead of my improved type and whether the approaching drawhead presents a link or an open mortise.

Manifestly the dimensions and proportions of the improved coupling may be varied to suit the work or to adapt them for use in connection with such drawheads as may be in use on any road on which it may be desired to adapt the improved coupling.

While it is preferred to provide the integral link and to arrange it with respect to the drawhead as shown it is obvious that the rocking drawhead might be employed without departing from some of the principles of my invention.

If it is desired to automatically uncouple and adjust the devices from the side of the car without going between them suitable de-

vices similar to the cross shaft having handles at its ends at the side of the car and provided between its ends with devices to connect with the parts to be operated as will be understood from Fig. 4 of the drawings may be employed.

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

1. An improved car coupling comprising a drawbar and a horizontally rocking drawhead provided with a link mortise substantially as set forth.

2. A car coupling consisting of the drawbar having a main section and a side section bolted together and arranged at their front ends to form jaws and the drawhead pivoted horizontally between said jaws substantially as set forth.

3. A car coupling comprising the drawbar having at its front end the opposite jaws and the drawhead having a link mortise provided at its sides with the projecting trunnions journaled in said jaws substantially as set forth.

4. An improved car coupling comprising the drawbar and the drawhead pivoted horizontally and provided at its front upper corner with an upwardly projected perforated wall or flange D substantially as set forth.

5. In a car coupling, the combination of the drawbar having a main section formed with

the inclined front end or wall α^2 and having at one side thereof the forwardly projected jaw, the side plate bolted to the main section and having its front end extended to form a jaw opposite that of the main section and the drawhead pivoted horizontally between said jaws substantially as set forth.

6. In a car coupling the combination of the drawbar and the rocking drawhead pivoted horizontally and provided with the integral link arranged at right angles to the line of the link mortise of the drawhead substantially as set forth.

7. The improved car coupling herein described consisting of the drawbar formed with the main section having the inclined front end α^2 and the projecting jaw, the side plate or section secured to said main section and extended at its front end forming a jaw, the drawhead fitted between the said jaws and having trunnions journaled therein and provided at its upper front corner with a projecting perforated flange D and having a depending integral link arranged at right angles to the link mortise and having recesses in its opposite sides and the pin having at its lower end the reduced tenon all substantially as and for the purposes set forth.

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Witnesses:

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