J. S. SHEPHERD.

DEVICE FOR OPERATING COUPLING PINS.

APPLICATION FILED OCT. 27, 1909.

978,406. Patented Dec. 13, 1910.

Fig. 1.

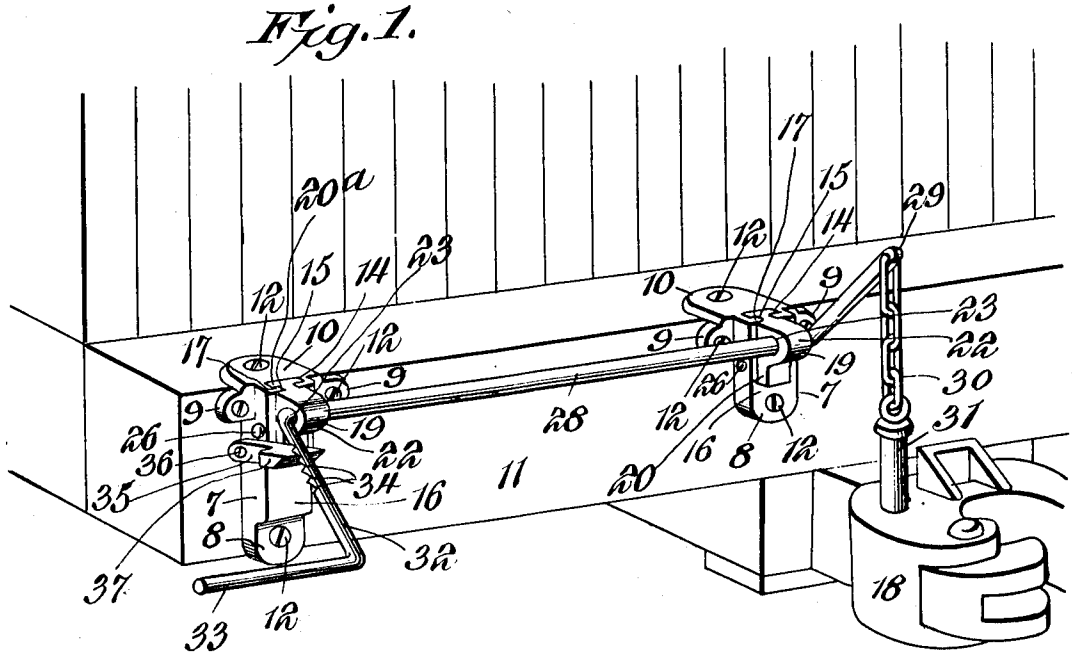


Fig. 2.

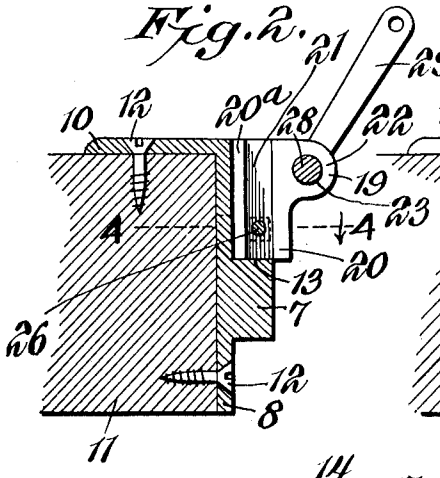


Fig. 3.

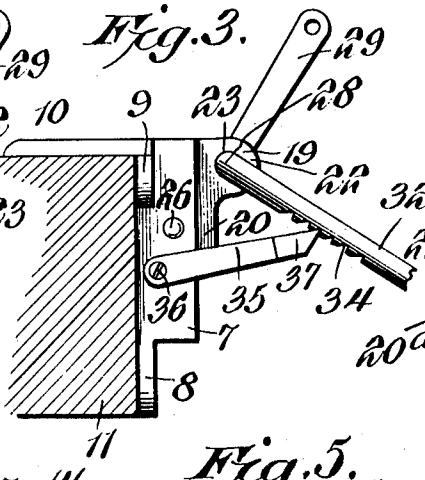


Fig. 4.

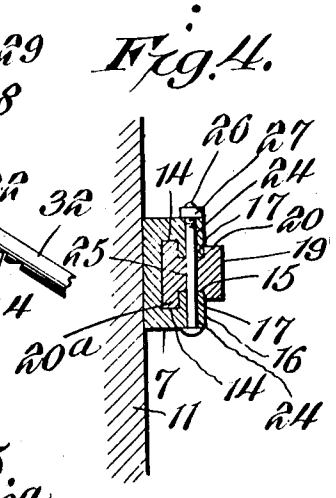


Fig. 6.

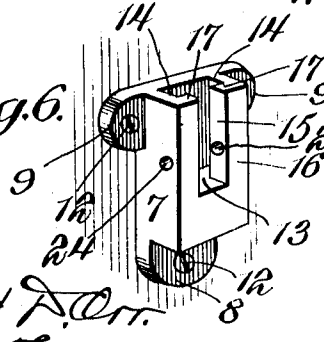
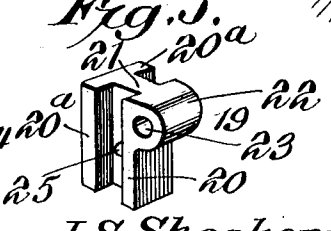


Fig. 5.



Witnesses

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DEVICE FOR OPERATING COUPLING-PINS.

978,406. Specification of Letters Patent. Patented Dec. 13, 1910.

Application filed October 27, 1909. Serial No. 524,988.

To all whom it may concern:

Be it known that I, JOSEPH S. SHEPHERD, a citizen of the United States, residing at Vinton, in the county of Roanoke and State of Virginia, have invented a new and useful Device for Operating Coupling-Pins, of which the following is a specification.

This invention relates to an improvement in devices for operating coupling pins, and is especially applicable for use in connection with freight cars, although, of course, the invention can be used equally as well on other cars if so desired.

The principal object of the invention is to provide a device of the character described which embodies a novel construction whereby the operating lever can be easily and quickly removed from, or secured to a car whenever desired, and without the necessity of removing the bracket supporting sockets.

A further object of the invention is to provide such a device which can be employed in connection with any type of coupling now in general use.

A still further object of the invention is to provide a device of the class described which is simple in construction, easy of operation and manipulation, and cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size, and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of one end of a freight car showing the invention applied to the end sill thereof. Fig. 2 is a vertical transverse section of the outer rod-supporting member. Fig. 3 is a side elevation of the same. Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 2. Fig. 5 is a perspective view of the bracket, and Fig. 6 is a perspective view of a modified form of the socket member.

Like reference numerals designate corresponding parts in all the figures of the drawing.

Referring to the drawing, the invention comprises two socket members 7—7 which are preferably rectangular in shape, and are formed from any suitable metal. As the two members are substantial duplicates a description of one of them will suffice. The outer face of the lower end of the outer member is formed with an ear 8, and the upper end thereof is provided with oppositely extending ears 9—9 and a rearwardly extending top flange 10. This member is arranged near one end of an end sill 11 of any car, and secured thereon by screws 12 or other suitable means, as clearly shown in the drawing. Although the member is preferably constructed in the manner above described, it may be constructed without the top flange 10, as shown by reference to Fig. 6 of the drawing.

The outer portion of the member is hollowed out to form a vertical and substantially T-shaped socket (in cross section) having a bottom 13, and undercut side walls 14—14 which are open at the top. The socket also includes a central exterior opening 15 which communicates with the outer face 16 of the member and the said undercut side walls. It will thus be observed, that the socket forms spaced and inwardly extending flanges 17—17 which are arranged flush with the upper face of the said outer face. Although the outer member is shown and described as having an ear 8, it may be omitted if so desired, as shown by the inner member in Fig. 1 of the drawing.

The inner member, which is a substantial duplicate of the outer member, is secured to the said end sill 11 at a point in close proximity to the coupling 18.

The invention further comprises rod-supporting brackets 19—19, each of which is detachably mounted in the sockets of the members 7—7, as will be hereinafter fully described. Inasmuch as the construction of the brackets are alike, a single description thereof will be sufficient. The bracket is preferably formed I-shaped in cross section and is of a depth equal to the T-shaped socket before described. The bracket 19 consists of spaced front and rear flanges 20 and 20^a respectively, which are centrally connected by a web 21. Integral with the front flange 20 is an offset and forwardly extending bearing 22 which is preferably arranged near the top edge thereof and is provided with a transverse or horizontal opening 23. From the foregoing, it will be apparent that the said brackets can be readily inserted in the members 7—7, the rear

flange 20ª of the brackets fitting within the undercut side walls thereof, and the web 21 between the flanges 17—17, and the front portion of the bracket will engage the front face 16 of the member 7. In order to secure these parts in their associated relation, alined openings 24—24 are respectively formed in the flanges 17—17, and an opening 25, which registers with the first-mentioned openings, is formed in the web 21, of the brackets. A bolt 26 or other means is passed through these registering openings and is preferably retained in place by a nut 27 or other suitable means.

An operating rod 28 is rotatably mounted within the openings or bearings 23 of the brackets, and comprises an inner end portion 29 which is bent at right-angles, and is provided at its end with a detachable chain 30 or the like, which is connected to a coupling-pin 31. The outer end 32 of the rod is bent at right-angles to the rod and also at right-angles to the inner end 29. The said outer end terminates in a handle 33 which is preferably bent at right-angles to the portion 32. The said portion 32 is provided on its underside with a plurality of teeth 34. A dog 35 is pivoted on the outer side face of the socket member 7 by a bolt or other suitable means 36 and is provided with a chamfered end 37.

Thus it will be seen, that whenever it is desired to release the said pin, the handle 33 of the rod 28 is swung outwardly and upwardly, the movement causing the inner end 29 of the rod to move upwardly and thereby elevate the said pin 31. The pin can be suspended in this position by engaging the chamfered end 37 of the dog 35 with any of the teeth 34 of the end 32 of the rod. To drop the pin, it is only necessary to release the dog, and the rod will assume its normal position through gravity. It will be furthermore observed, that should the rod become broken through any cause whatsoever, it will only be necessary to remove the bolts 26, and the rod, together with the brackets 19—19, can be simultaneously detached from the socket members 7—7, thus avoiding the necessity of removing the device in its entirety.

What I claim is:—

1. A device for operating coupling pins comprising an operating rod, spaced socket members permanently secured to the end sill of the car, and rod supporting brackets detachably mounted in the sockets of the said members and having transverse openings therein which provide complete bearings for the said rod, whereby the brackets are carried by the rod upon the removal of said brackets from the socket members.

2. A device for operating coupling pins, comprising spaced members permanently secured to an end sill of a car, one of the members being located near the end of the sill, and the other member in close proximity to the coupling, said members being respectively provided with a substantially T-shaped socket having a bottom and undercut side walls, said sockets opening at the outer and upper faces of the members, substantially I-shaped brackets detachably mounted within the sockets and respectively provided with off-set alined complete bearings, and an operating rod for the coupling pin rotatably mounted within the alined bearings of the brackets, whereby the brackets are carried by the rod upon their removal from the spaced members, the inner end of the rod being bent at right-angles and provided at its end with a means for engaging the coupling pin, the outer end of the rod being bent at right-angles to the rod and also at right-angles to the said inner end.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH S. SHEPHERD.

Witnesses:

J. E. GISH,

S. D. SHACKLEFORD.