(No Model.)

G. W. MAHAN.

CAR COUPLING.

No. 493,102. Patented Mar. 7, 1893.

Fig. 1

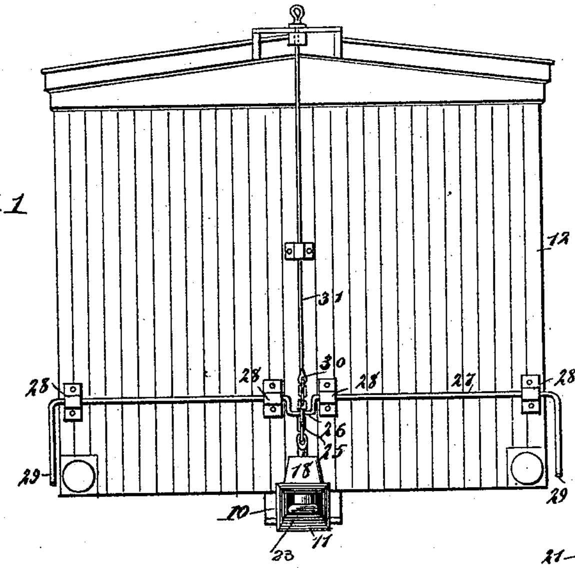


Fig. 2

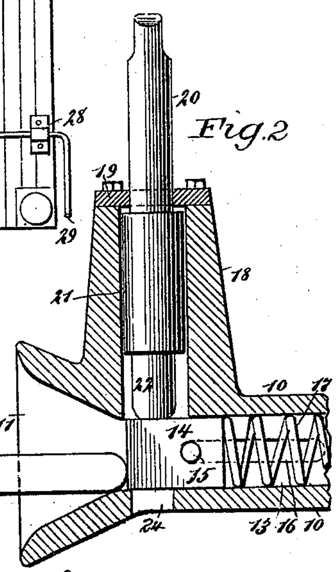


Fig. 3

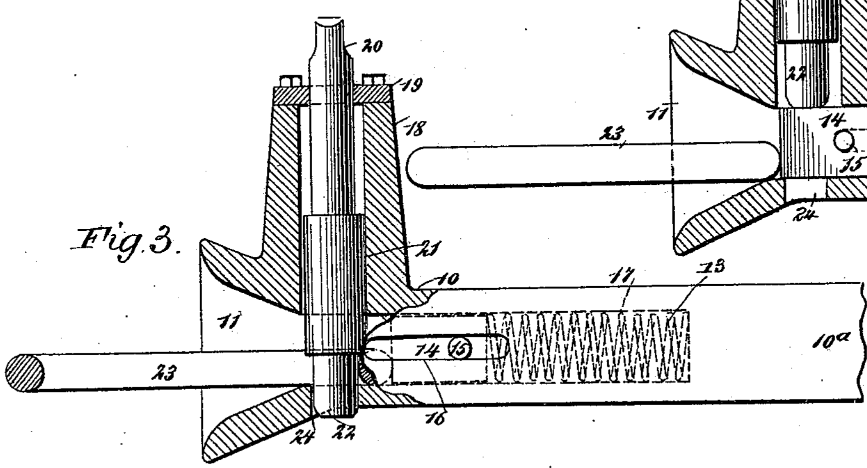
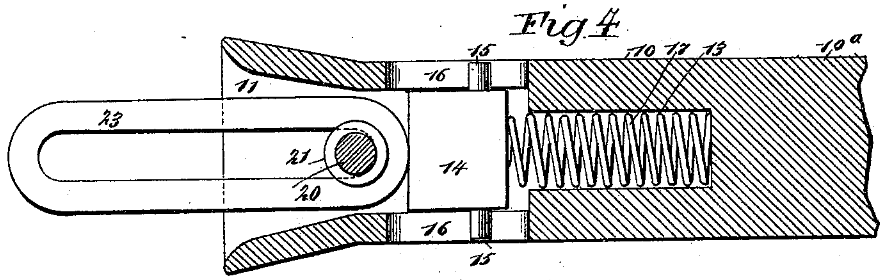


Fig. 4



WITNESSES:

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GEORGE W. MAHAN, OF COLD SPRING HARBOR, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 493,102, dated March 7, 1893.

Application filed January 3, 1893. Serial No. 457,064. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MAHAN, of Cold Spring Harbor, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of car couplings which couple automatically; and the object of my invention is to produce an extremely strong, simple and durable coupling of this class, which embodies the principle of the old-fashioned link and pin coupling; which is constructed so that the pin, by its weight, will hold the link in position to enter an opposing coupling, and which may be operated to uncouple it from either the sides or top of a car, thus obviating the necessity of sending a brakeman between the cars to uncouple them.

To this end my invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of my improved coupling as applied to a freight car. Fig. 2 is a broken longitudinal section of the coupling on an enlarged scale and in an uncoupled position. Fig. 3 is a broken longitudinal section showing the coupling link engaged and held in position by the pin; and Fig. 4 is a broken sectional plan of the coupling.

The drawhead 10 has a rearwardly extending shank 10^a adapted to be secured to the bottom of a car 12 in any customary way, and it has also at its front end a bell shaped mouth 11 adapted to receive a coupling link. The shank 10^a at its front end and immediately behind the mouth 11 is bored out longitudinally, as shown at 13, and in this bore is held to slide a block 14 which has side arms or studs 15 working in longitudinal slots 16 in the sides of the drawhead, and these slots and arms limit the movement of the slide block. The slide block is normally pressed forward by a spring 17 which is held in the bore 13.

On the top of the drawhead and above the back portion of the mouth is a raised hollow boss or housing 18 which is covered by a removable cap 19, and in this housing is held the coupling pin 20, the upper end of which projects above the housing, and the pin has an enlarged central portion 21 and a shoulder is formed between this portion and the lower end 22 of the pin, which lower end is adapted to extend downward through the link 23 and into a hole 24 in the bottom of the drawhead.

The block 14 is held normally forward beneath the pin 20 and the pin is thus held in an elevated position, as shown in Fig. 2, but when the link 23 is pushed into the drawhead it forces back the block 14, thus permitting the pin to drop through the link. When this action takes place, the lower end of the central enlargement 21 strikes on the upper surface of the link, and by binding the link between itself and the bottom of the drawhead, holds the link in a substantially horizontal position, as shown in Fig. 3, and when in this position the link is adapted without other guidance to enter an opposing drawhead.

To the upper end of the pin 20 is secured a chain 25 which connects with a crank 26 on a cross shaft 27 which turns in suitable keepers 28 on the end of the car 12, and the shaft terminates in cranks 29 which as shown in Fig. 1, are arranged on opposite sides of the car, and by turning the cranks and shaft the chain 25 and pin 20 will be raised so as to release the link 23. A chain 30, which is a continuation of the chain 25, connects with a vertically sliding rod 31 which is held in suitable keepers and extends to the top of the car, and it will be seen that the pin may be raised by lifting this rod as well as by tilting the shaft 27.

I do not claim the crank shaft and lifting rod as a part of my invention, as any other convenient and operative apparatus may be used for lifting the pin.

The link 23 is held normally in a horizontal position by the weight of the pin 20, as shown in Fig. 3, and when it is pushed into an opposing coupling, it forces back the slide block 14 of said coupling, thus permitting the pin 20 of said coupling to drop and engage the link 23, and the two couplings are thus united.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

A car coupling comprising the draw head 10, having a vertical tubular casing 18 a bottom aperture 24 in line with the bore of the casing, the opposite side slots 16, the vertically movable pin having a central enlarged portion 21 working in the said casing and removable through the upper end thereof; the lower reduced end of the pin registering with the aperture 24, the apertured removable top plate 19 on the upper end of casing 18 and through which the reduced upper end of the pin passes, the block 14 having pins 15 working in said slots and a spring behind the block, substantially as set forth.

GEORGE W. MAHAN.

Witnesses:
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C. SEDGWICK.