No. 871,547. PATENTED NOV. 19, 1907.

R. P. WILLIAMS.

CONNECTING DEVICE FOR DISABLED RAILWAY CARS.

APPLICATION FILED FEB. 8, 1907.

2 SHEETS—SHEET 1.

Fig. 1,

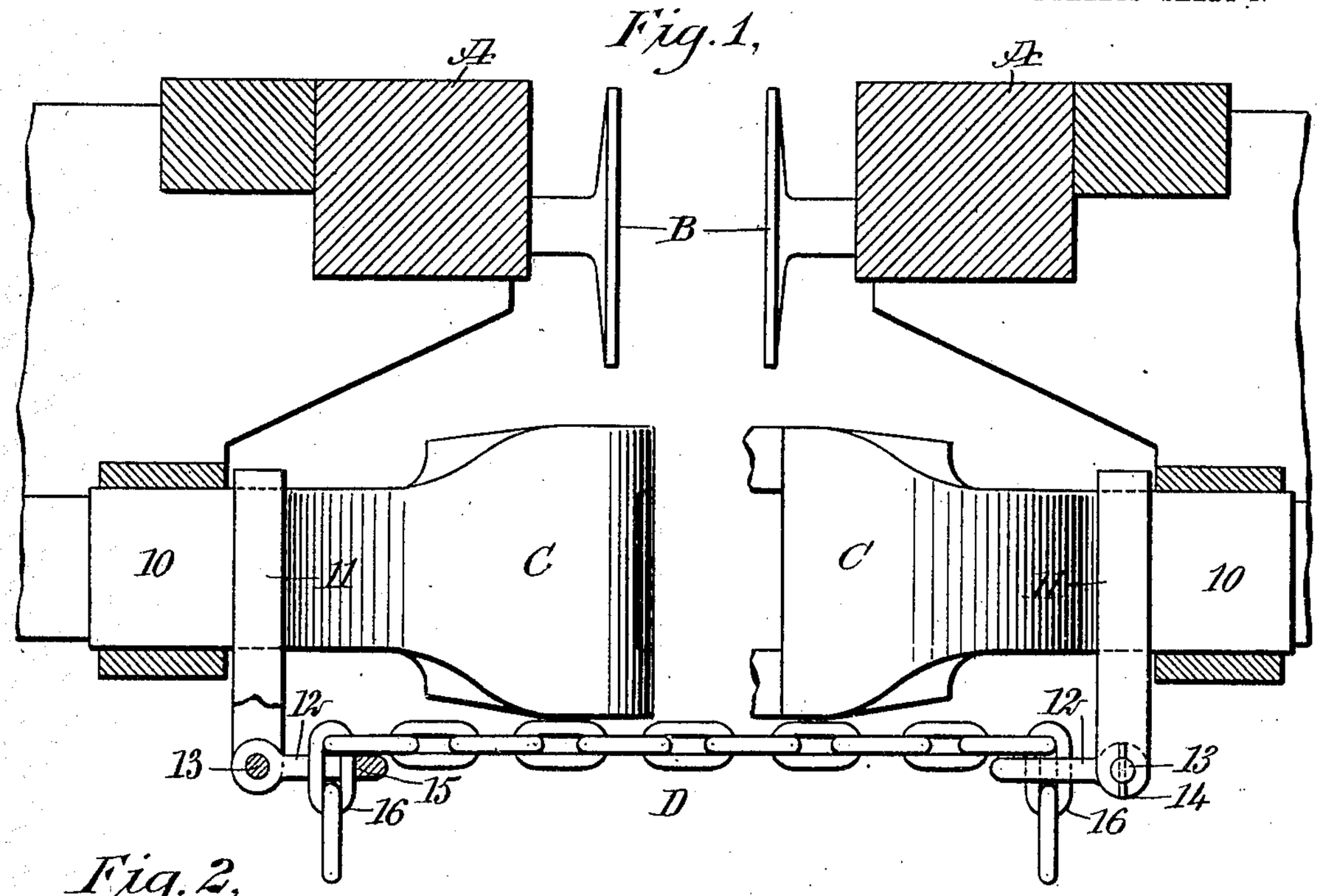


Fig. 2,

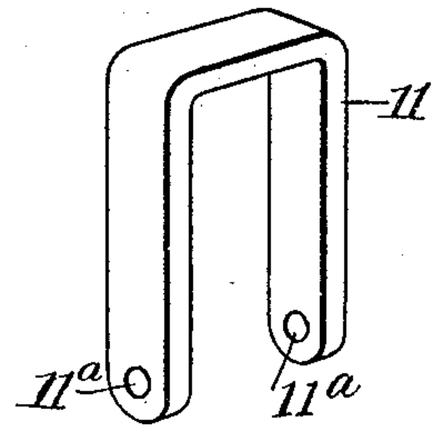


Fig. 3,

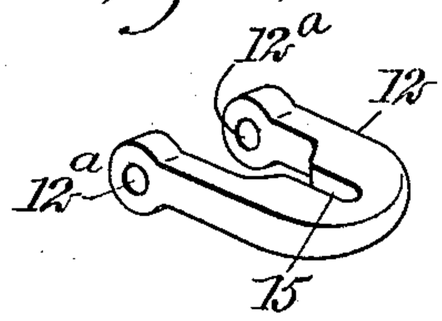


Fig. 4,

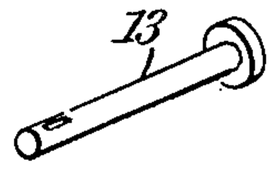
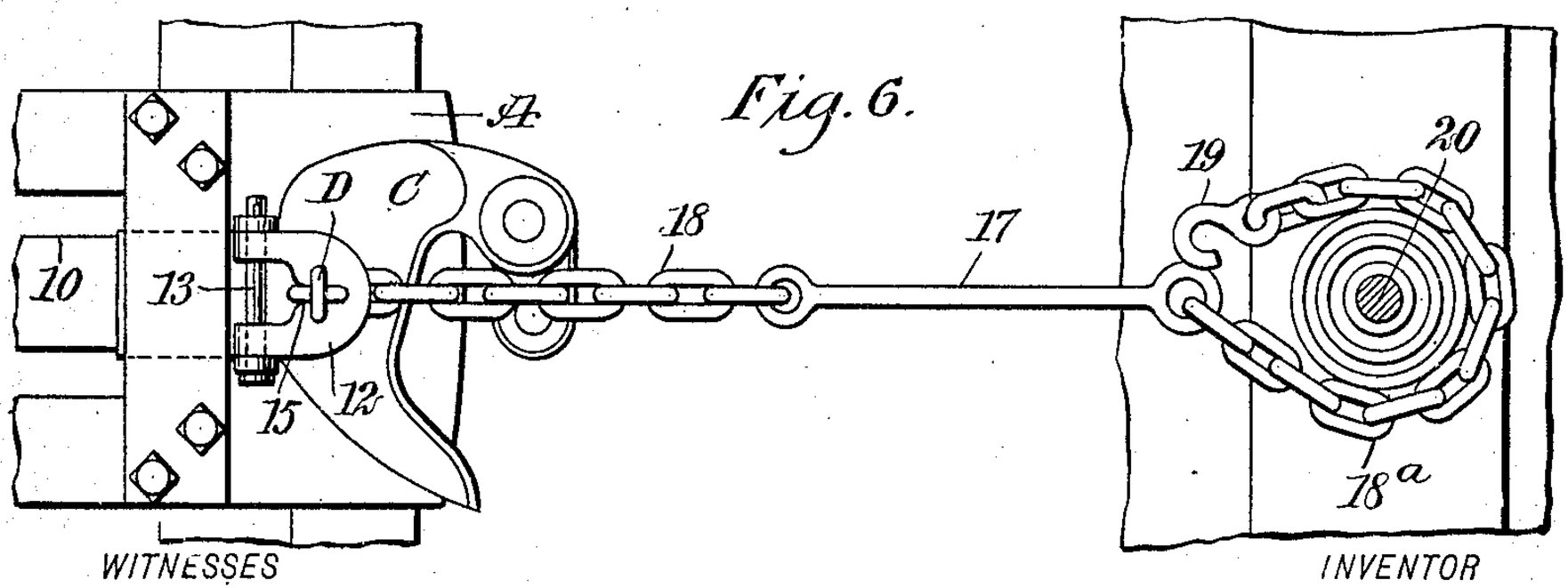


Fig. 5,

Fig. 6.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 7,

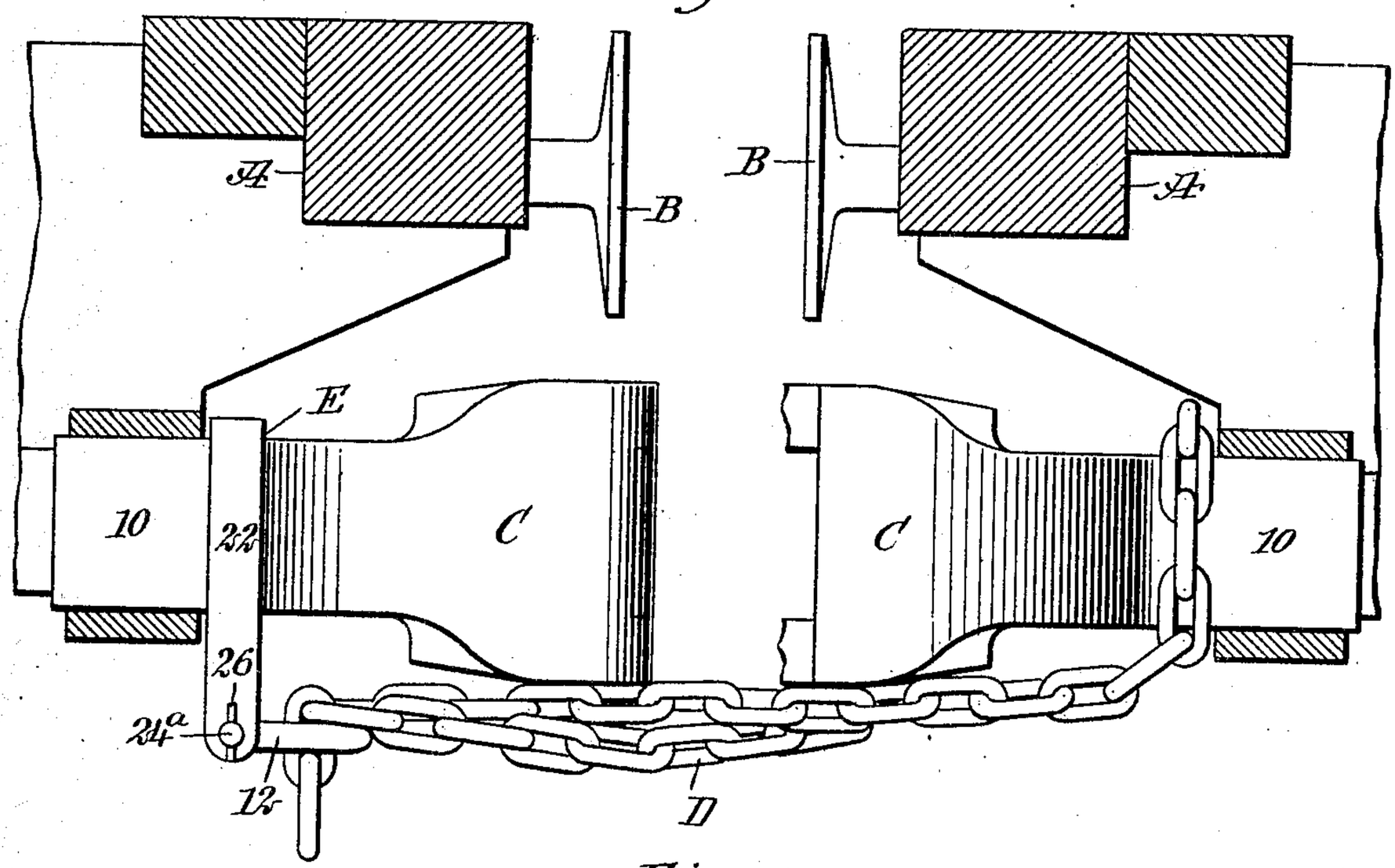


Fig. 8,

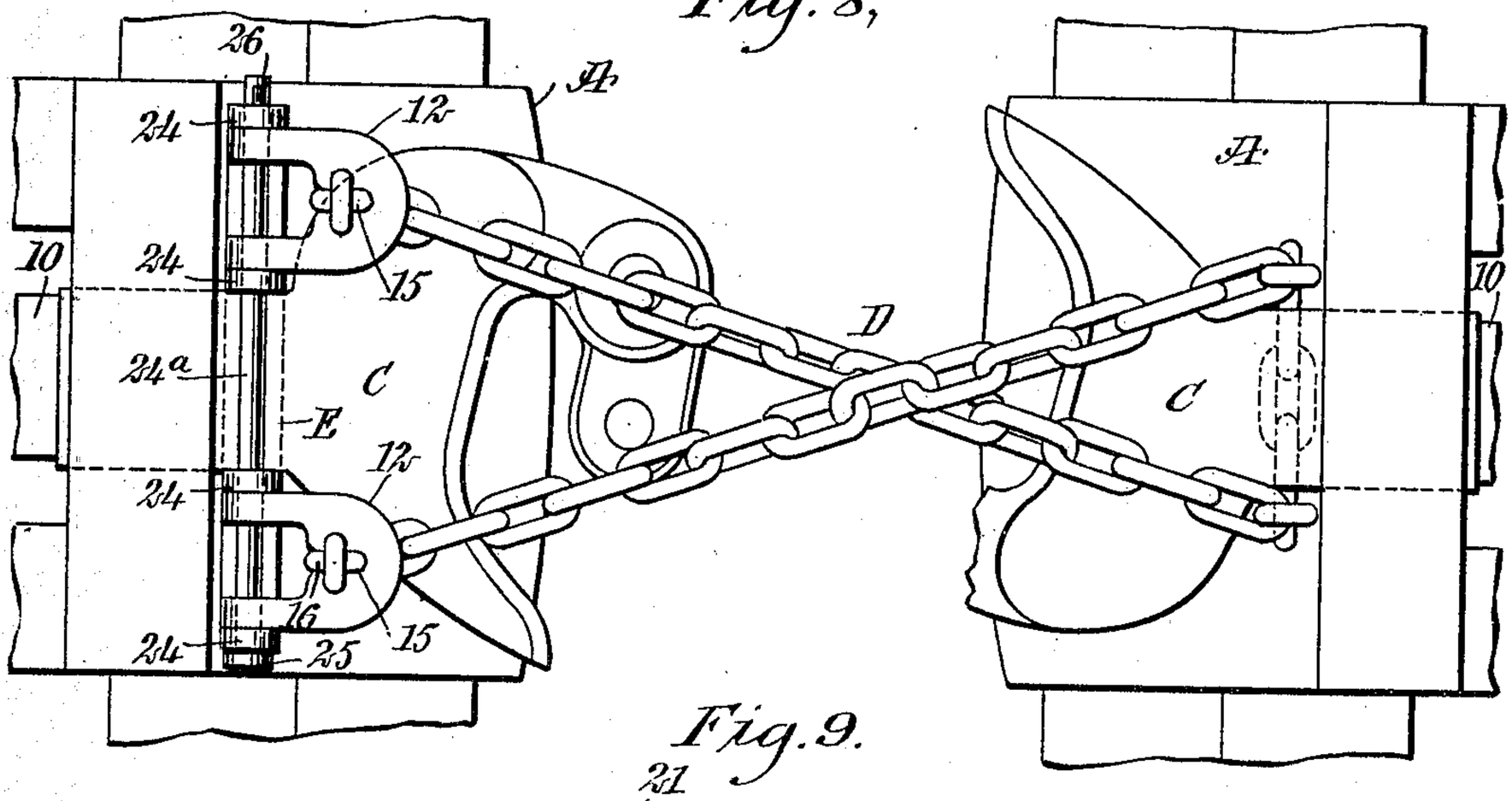
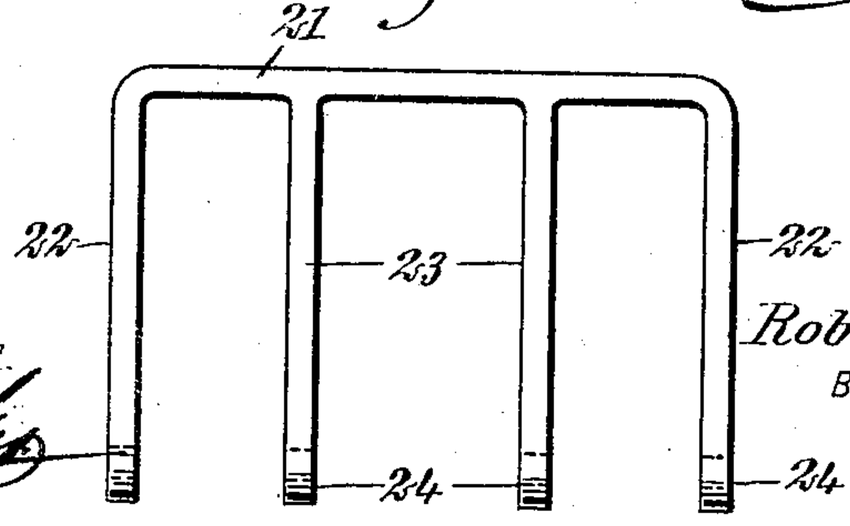


Fig. 9.



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UNITED STATES PATENT OFFICE.

ROBERT PORT WILLIAMS, OF SANTA BARBARA, CALIFORNIA.

CONNECTING DEVICE FOR DISABLED RAILWAY-CARS.

No. 871,547. Specification of Letters Patent. Patented Nov. 19, 1907.

Application filed February 8, 1907. Serial No. 356,378.

To all whom it may concern:

Be it known that I, ROBERT PORT WILLIAMS, a citizen of the United States, and a resident of Santa Barbara, in the county of Santa Barbara and State of California, have invented a new and Improved Connecting Device for Disabled Railway-Cars, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a very simple and readily available means whereby to couple cars disabled by breakage of the couplings, or even in the event the draft timbers and drawheads are all pulled out of one car, which action often takes place.

A further purpose of the invention is to provide means for effecting a coupling under the foregoing circumstances at any point in the length of the train, avoiding the present necessity of switching the disabled car or cars to the rear of the train.

It is also a purpose of the invention to provide a device of the character described that can be always at hand, occupying but little space, and which can be applied by one train hand.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

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

Figure 1 is a sectional side elevation of the coupling sections of two cars coupled by the improved device, the drawhead of one car having been damaged; Figs. 2, 3, 4 and 5 are perspective views of the detail elements of the device; Fig. 6 is a bottom plan view of the device, shown applied to couple two cars from one of which the draft timbers and drawhead have been torn out; Fig. 7 is a sectional side elevation of the coupling sections of two cars, illustrating the application thereto of a slight modification of the improved device; Fig. 8 is a bottom plan view of the parts shown in Fig. 7; and Fig. 9 is a front elevation of a yoke or clevis in the construction shown in Figs. 7 and 8.

A represents the end sills of opposing cars, B the bumpers therefor and C the drawheads for the said cars, provided with the customary drawbars 10.

The actual invention is described as follows:

A yoke 11 is provided that is adapted to be passed down over a draw bar 10, the yoke being provided at the lower ends of its members with alining apertures 11^a. In connection with the yoke 11 a chain crab or holder 12 is employed, shown in detail in Fig. 3. This chain crab or holder 12 is adapted to occupy a horizontal position, and the said chain crab or holder is also of U-shaped formation and is provided with apertures 12^a in the ends of its members, the connection between the yoke and the chain crab being effected by the passage of a pin 13 through the apertures 11^a in the yoke 11 and the apertures 12^a in the chain crab or holder 12, a wedge pin 14 being passed through the unheaded end of the connecting pin 13, although any equivalent of the wedge pin 14 may be employed. The chain crab or holder 12 is provided with a central longitudinal slot 15 in the inner edge of its body section, the said slot 15 being adapted to receive an end link 16 of a connecting chain D; and the slot 15 in the chain crab or holder 12 is of just sufficient size to hold a link of the chain in frictional engagement, particularly when the chain D is placed under tension, and the greater the tension the greater the gripping action of the chain crab on the chain.

Supposing, as is shown in Fig. 1, an accident to have happened to the drawhead of one car, thereby effecting an uncoupling, the car having the disabled drawhead can be readily coupled to the next car without removing it from the train, by simply placing a yoke 11 over the drawbar 10 of each car and placing a crab or holder 12 in pivotal connection with each yoke below the drawheads, and then using a single chain the end links whereof are passed down through the said crabs or holders 12, whereupon the necessary coupling connection between the cars is effected; but I desire it to be understood that I do not confine myself to the use of a single chain, since more than one may be employed. A single chain, however, is preferred, since if two or more chains are used they may not have equal tension under strain and consequently one or the other would be liable to snap.

If, as is shown in Fig. 6, the drawhead and the draft timbers of one of the cars have been entirely torn out as indicated to the right in

said Fig. 6, the same factors which have been described are used in connection with the draft bar of the perfect drawhead or coupling. A short length of chain 18 is employed in this instance, connected with the crab or holder 12 carried by the perfect coupler, and this short length of chain 18 is connected with a rod 17, and said rod 17 is again connected with a second length of chain 18ª, which latter is provided with a hook 19 at its free end, and said second length of chain 18ª is passed around the center iron 20 of the disabled car, and is suitably secured by means of the aforesaid hook 19.

In Figs. 7, 8 and 9, I have illustrated a construction of the device that is particularly adapted for use when a disabled car is very heavily loaded. At such time I employ the yoke or clevis E shown in Fig. 9, consisting of an upper member 21, downwardly extending end members 22, and intermediate downwardly extending members 23, each member 22 and 23 terminating in an eye 24 at its lower end. This clevis E is made to straddle the draw bar 10 of the perfect coupling C, the draw bar being received between the inner members 23, as is particularly shown in Fig. 8. A pin 24ª is passed through the eye 24 of the clevis E and the said pin is provided at one end with a head 25, being held in position by a cotter 26, or similar fastening device, located at its opposite end, as is shown in Figs. 7 and 8. This main horizontal pin 24ª is passed through the eye of the chain crabs or holders 12 of the same type as has been described with reference to the other figures of the drawings, and which is particularly shown in Fig. 3. These chain crabs are located between the intermediate members 23 of the clevis and the outer members 22. The chain D employed is simply wrapped around the draw bar of the disabled coupling, as is especially shown in Fig. 8, and is then crossed, its end portions being made to enter the slots 15 in the said clevis E, as is also shown in Fig. 8. By means of this construction a quick substitute coupling can be effected, and the draft will be easy and uniform no matter how heavily laden the disabled car may be.

It is evident that the device described can be employed to effect a speedy, convenient and safe coupling between two disabled cars, or between a car having a disabled draw bar and an opposing car having a perfect one.

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

1. An emergency coupling, comprising a yoke having a body portion adapted to rest upon the drawhead and arms depending upon each side of the drawhead, a chain, and a crab in connection with the arms of the yoke and provided with a slot for receiving a link of the chain.

2. An emergency coupling, comprising a yoke having a body portion adapted to rest upon the draw head, and arms adapted to depend upon each side of the draw head, said arms having openings through the ends thereof, a chain crab substantially U-shape in construction and having openings in the arms thereof adapted to register with the openings of the yoke arms, and a pin traversing said openings, said crab having a slot in the body portion thereof, and a chain adapted to be received by the slot.

3. An emergency coupling, comprising a yoke whose body portion is adapted to rest upon the draw head, and the arms thereof to depend upon each side of the draw head, said arms having openings therethrough, a chain crab having openings adapted to register with the openings of the arms, a pin traversing the registering openings, and a chain for engagement by the crab.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

ROBERT PORT WILLIAMS.

Witnesses:
W. P. Butcher,
Frank Brooks Foster.