

No. 681,646.

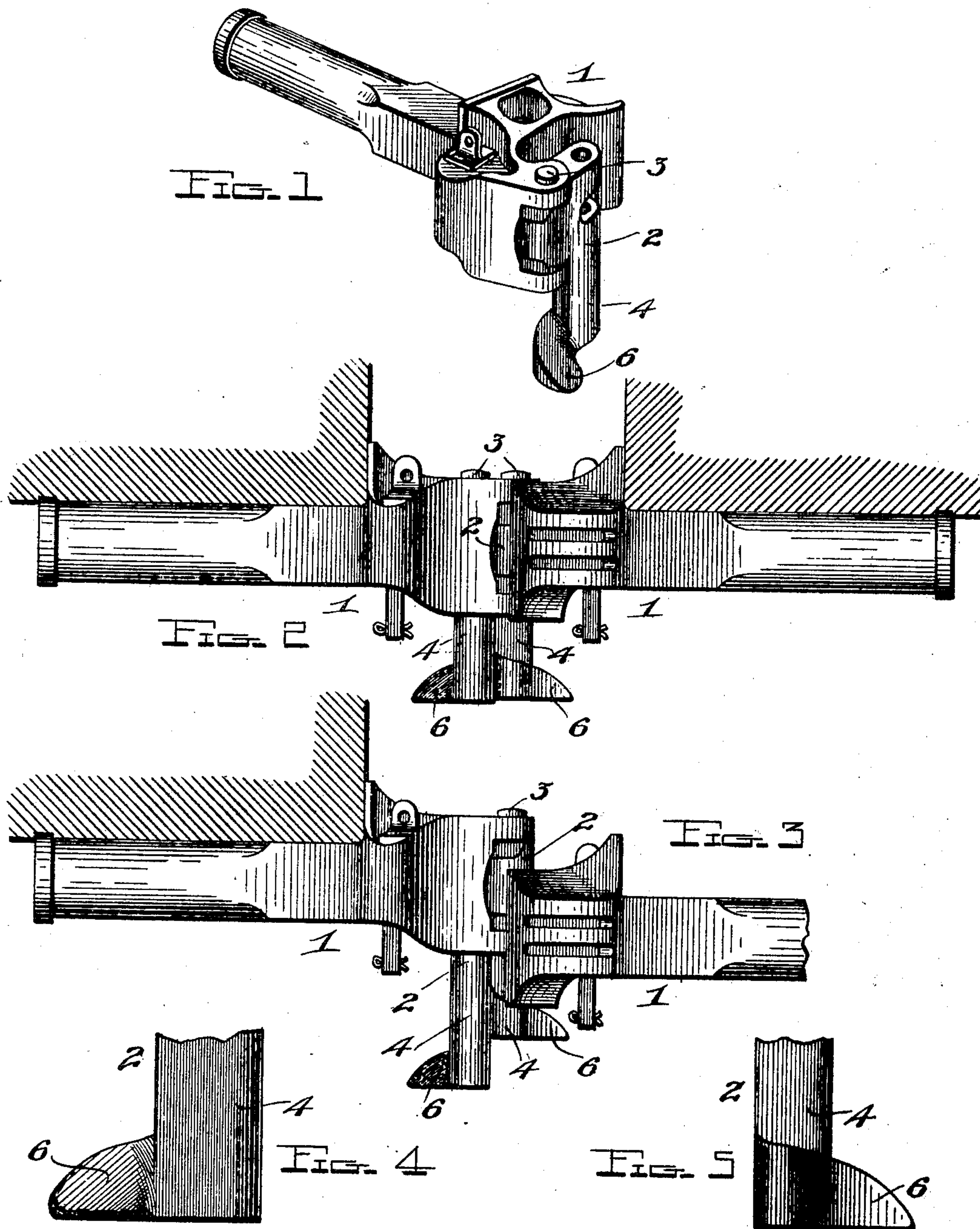
Patented Aug. 27, 1901.

W. E. POTTS, JR. & C. A. RUCKEL.

CAR COUPLING.

(Application filed Dec. 27, 1900.)

(No Model.)



Witnesses
J. H. Gresham Jr.
J. H. Gresham Jr.

By

A. H. Wilson & Co.

Attorneys

Inventors
W. E. Potts, Jr. and
C. A. Ruckel

UNITED STATES PATENT OFFICE.

WILLIAM E. POTTS, JR., AND CARROLL A. RUCKEL, OF WHITEHALL,
ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 681,646, dated August 27, 1901.

Application filed December 27, 1900. Serial No. 41,194. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. POTTS, Jr., and CARROLL A. RUCKEL, citizens of the United States, residing at Whitehall, in the county of Greene and State of Illinois, have invented certain new and useful Improvements in Car-Couplers; and we do 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.

The invention relates to improvements in car-couplers, particularly those of the type known as "vertical-plane" couplers.

The object of the invention is to provide means which will effectually prevent damage by the breaking of one of the draw-bars so long as the other coupling member remains in position.

A further object of the invention is to provide the knuckle with a toe or lug which, in the coupling of cars having couplings at different heights from the road-bed, will serve to guide one coupler upward within the other coupler to effect a proper coupling of the cars.

Accidents frequently occur by the breaking and dropping underneath the car of a draw-bar, owing to the fact that the draw-bar when detached from the car drops freely from the coupling member with which it engages on the next adjacent car. By our invention provision is made for preventing the detachment of the broken member from the member with which it is engaged and for sustaining the broken member against all tendency to dislodge it.

With these and other minor objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of our improved coupler. Fig. 2 is a view showing the two couplers in operative position. Fig. 3 illustrates a pair of couplers, one secured to the end of a car and the other detached from its car and supported by the coupler with which it engages. Fig. 4 is a front view of the lug at the lower

end of the knuckle. Fig. 5 is a side view of the same.

Referring now more particularly to the drawings, the numeral 1 denotes the draw-bar of a vertical-plane coupler, to which is pivoted a knuckle 2 by a pin 3. The draw-bar and knuckle proper may be of any usual practicable and preferred form, those illustrated being shown merely by way of example.

The invention does not relate to the parts above specified, except so far as it comprehends the modifications in the nature of an addition to the knuckle.

The extension of the knuckle referred to consists of a depending portion 4, which, conforming in cross-section with the cross-section of the knuckle, constitutes such an extension as will compel the engagement of a cooperating coupling member as surely and efficiently as will the knuckle itself. The extension 4 should be of a length sufficient to permit of the ordinary coupling operations of the coupler proper and yet to support a broken coupler in a horizontal position above contact with the road-bed. Upon the lower end of the extension is provided a supporting-lug 6, which projects at right angles to the extension 4 and serves to prevent the dropping of a broken or pulled-out coupling member from the extension 4. The supporting-lug 6 may be of any suitable shape and size or dimension and is tapered longitudinally and transversely its length, so that should one of the coupling members be lower than the other in the act of moving the cars when the knuckles of said members are brought together and are being swung to their closed position the draw-head of one coupling member will engage the inclined lug carried by the knuckle of the other member, and as said knuckle swings in closing said lug will ride under the draw-head and elevate it to a proper position to couple. This is the gist of the present invention and is a very important advance step in the art. These knuckles may be easily and quickly attached to any of the well-known forms of vertical-plane couplers, and by their employment serious accidents due to dropping, pulling out, or breaking of one of the coupling

members and its falling upon the road-bed and derailing the car or a section of the train are avoided. Numerous other advantages resulting from the use of a knuckle such as shown and described are so apparent and obvious as to render it unnecessary to enter into a detailed description thereof.

As the knuckle may be applied to any of the well-known forms of couplings now in use, it is itself an article of manufacture and may be placed upon the market as such and sold to the trade to be applied to the couplers now in use.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of our improved car-coupler will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A knuckle for a car-coupler of the Jan-

ney or "vertical-plane" type having a downwardly-projecting extension and a lug projecting at an angle from said extension and having an inclined face, substantially as set forth. 30

2. A knuckle for a car-coupler of the Janney or "vertical-plane" type having a downwardly-projecting extension and a lug projecting at an angle from said extension and having a face inclined longitudinally and transversely its length, substantially as set forth. 35 40

3. A knuckle for a car-coupler of the Janney or "vertical-plane" type having a downwardly-projecting extension corresponding in cross-section with the cross-section of the knuckle and provided at its lower end with a laterally-projecting lug inclined longitudinally and transversely its length, substantially as set forth. 45

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses. 50

WILLIAM E. POTTS, JR.
CARROLL A. RUCKEL.

Witnesses:

E. A. CARRIGAN,
ED. C. PEARCE.