

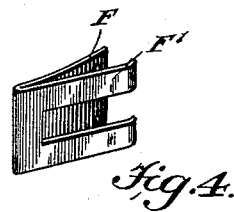
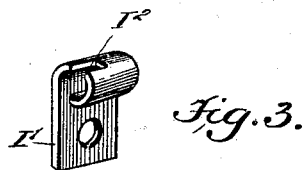
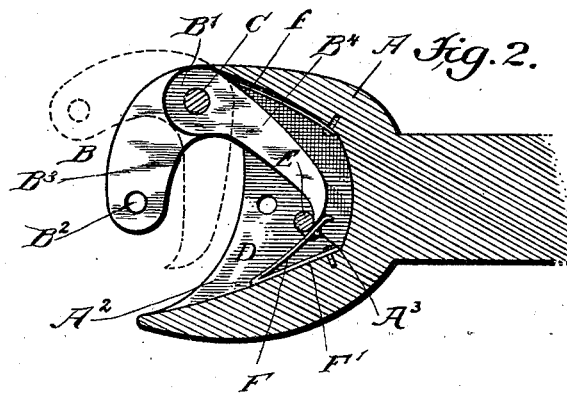
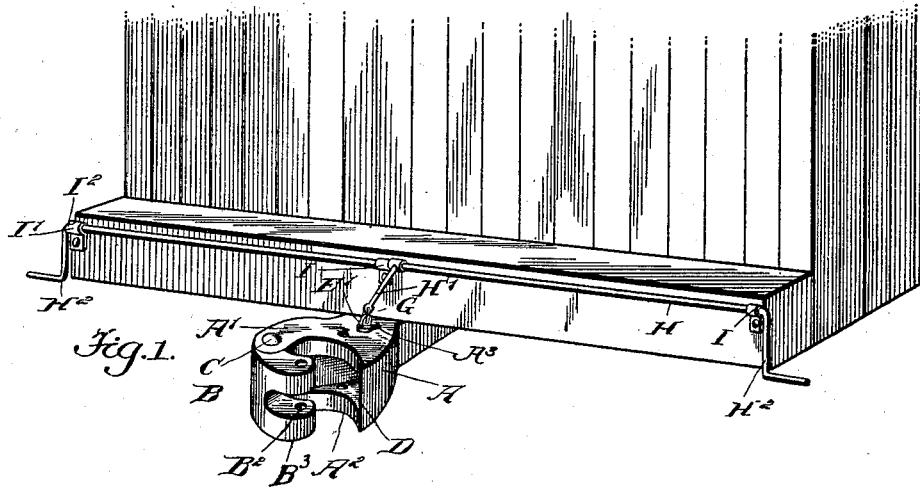
No. 676,218.

Patented June 11, 1901.

M. A. BROWN.  
CAR COUPLING.

(Application filed Oct. 29, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT - OFFICE.

MARK ANTHONY BROWN, OF DOUGLAS, GEORGIA, ASSIGNOR OF ONE-HALF  
TO WILLIAM O. PAXSON, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 676,218, dated June 11, 1901.

Application filed October 29, 1900. Serial No. 34,756. (No model.)

*To all whom it may concern:*

Be it known that I, MARK ANTHONY BROWN, a citizen of the United States, and a resident of Douglas, in the county of Coffee and State of Georgia, have invented new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description.

My invention relates to that class of car-couplings in which the coupling-head or draw-head is provided with a pivoted member or knuckle adapted to be locked after engagement with a similar knuckle on another car.

The object of my invention is to provide a simple and strong coupling of the above-indicated class in which provision is made for allowing a yielding lateral movement of the locking-pin. Other features of the invention will appear from the description hereinafter given, and the novelty of the invention will be defined in the appended 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 perspective view of one end of a car provided with my improved coupling. Fig. 2 is a sectional plan of the coupling. Fig. 3 is a detail perspective view of one of the bearings for the operating-shaft, and Fig. 4 is a detail perspective view of the spring for holding the locking-pin.

A is the draw-head, secured to the car in any suitable manner and having at its free or outer end two perforated lugs or ears A', between which is received the central lug or ear B' of the knuckle B, connected with the draw-head by the vertical pivot C. This knuckle is of substantially the same shape as in the well-known Janney coupler and may have the usual vertical apertures B<sup>2</sup> adjacent to its free end. The end B<sup>3</sup> of the knuckle is forked. The draw-head has top and bottom walls A<sup>2</sup>, which, together with the side walls of the head, form an outwardly-flaring pocket D. In this pocket is received an arm B<sup>4</sup>, extending rearwardly from the central lug B' of the knuckle B. This arm is concaved upon its forward face, near its end, to form a seat for the locking-pin E. The latter is movable verti-

cally and also transversely in slots A<sup>3</sup>, ranging obliquely, and the pin E is pressed inward by springs F', having an attaching member F' secured to one of the side walls of the draw-head within the pocket D. The free ends of the springs are also adapted to bear on the end of the arm B<sup>4</sup> of the knuckle. At the opposite side wall of the draw-head another spring f is secured within the pocket D, this spring serving to throw the knuckle when released into the open position shown by dotted lines in Fig. 2—that is, in readiness for coupling. The pin E has a head E', connected by a link G with a crank-arm H' upon a transverse shaft H, journaled on the car and having operating-handles H<sup>2</sup> at its ends, so that it can be turned from either side of the car. The shaft is adapted to slide in its bearings I I', and one of said bearings, I', is made with a longitudinal slot I<sup>2</sup>, adapted to receive one of the crank-handles H<sup>2</sup> of the shaft H, so as to lock the shaft against turning.

In operation when it is desired to couple cars the shaft H is turned so as to raise the pin E out of contact with the arm B<sup>4</sup> of the knuckle B, and the spring f will throw the knuckle into the open position. (Shown in dotted lines in Fig. 2.) In this position the end B<sup>3</sup> extends longitudinally and the arm B<sup>4</sup> transversely of the draw-head A. The pin E is then again lowered into the pocket D. As the knuckles at the adjacent ends of different cars are pivoted on opposite sides of the longitudinal central plane of the car, (this being the usual arrangement with knuckle-couplings,) the end B<sup>3</sup> of the knuckle of each car will when two cars are brought together engage the transversely-extending arm B<sup>4</sup> of the knuckle on the other car and will force said arm into the pocket D and against the pin E. The latter will yield outwardly in the slots A<sup>3</sup>, the springs F' then projecting the pin inwardly in front of the arm B<sup>4</sup> into the locking position. (Shown by solid lines in Fig. 2.) In this position the knuckles B of the two adjacent cars are interlocked, and the cars are thus securely connected. The knuckles, however, are capable of a limited motion, as the springs F' can yield to let the arm B<sup>4</sup> move slightly inward and the pin E can slide

outward in the slots A<sup>3</sup>. Thus swaying motions of the car and the varying relative position of car ends (as upon curves) will not subject the coupling to any excessive strain.

5 When it is desired to lock the shaft H, so as to prevent accidental vertical movement of the pin E, one of the crank-handles H<sup>2</sup> is engaged with the slot I<sup>2</sup> of the bearing I'.

10 Various modifications may be made without departing from the nature of my invention as set forth in the appended claims.

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

15 1. A car-coupling comprising a draw-head provided with a transverse slot, a pin movable in said slot vertically and transversely, a spring secured to the draw-head and arranged to force the said pin toward one end  
20 of said slot, a spring-pressed knuckle pivoted to the draw-head and having an end adapted to interlock with the corresponding end of a like knuckle upon another car, and an arm  
25 of said pin so as to be locked thereby, and

means for removing the pin from engagement with said arm.

2. A car-coupling comprising a draw-head provided with a transverse slot, a pin movable in said slot vertically and transversely, 30 a spring secured to the draw-head and arranged to force the said pin toward one end of said slot, the spring projecting beyond the pin, a spring-pressed knuckle pivoted to the draw-head and provided with two ends or 35 arms arranged at an angle to each other, the forward or outer end being adapted to interlock with the corresponding end of a like knuckle upon another car, and the rearward or inner end or arm being adapted to be engaged and locked by said pin, and means for 40 removing the pin from engagement with said arm.

In testimony whereof I have signed my name to this specification in the presence of 45 two subscribing witnesses.

MARK ANTHONY BROWN.

Witnesses:

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T. L. PAULK.