

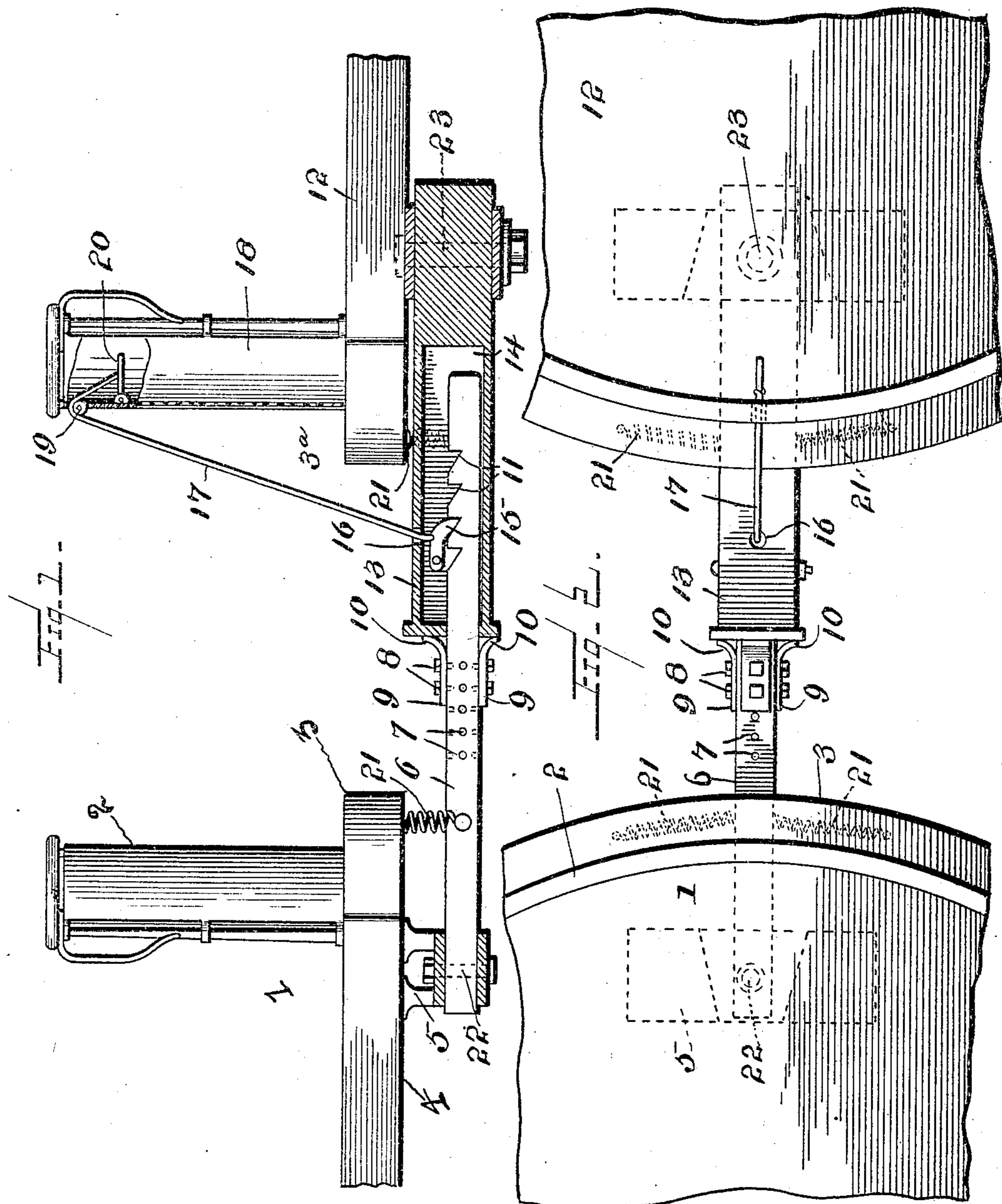
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PATENTED NOV. 1, 1904.

R. B. ADKINS.
CAR COUPLING.

APPLICATION FILED APR. 21, 1904.

NO MODEL.



WITNESSES:
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 773,843, dated November 1, 1904.

Application filed April 21, 1904. Serial No. 204,241. (No model.)

To all whom it may concern:

Be it known that I, ROBERT B. ADKINS, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to car-couplings, and more particularly to that class of car-couplings designed for use upon street-cars, and has for its object to provide means whereby the coupling and uncoupling may be accomplished from the platform of such cars without endangering the life or limb of operatives in going between the cars.

A further object is to provide a coupling which will automatically take up the "slack" between the two cars so coupled and do away with jerks.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of my invention.

In the accompanying drawings, Figure 1 represents a vertical section, and Fig. 2 a plane view, of my complete invention in connection with two cars as it appears in use.

In the preferred embodiment of my invention either member of my device may be secured to the "motor-car," the other being connected to the trailer.

In the drawings, 1 represents the motor-car, with the usual dash 2, buffer 3, and base 4. To the under side of base 4 I rigidly secure in any approved manner hanger 5, to which is pivotally secured draw-bar 6, substantially parallel with and extending beyond the base of the car.

The draw-bar 6 I prefer to make quadrangular in cross-section, and intermediate of the ends I form a plurality of holes 7, arranged in rows midway of and parallel with the planes of such bar.

The holes 7 may be internally screw-threaded, and by means of screw-bolts 8 engaging such screw-threads I attach springs 9, disposed parallel with but with their ends curved away from bar 6, as indicated at 10. Within and transverse to the upper face of bar 6 I form a plurality of notches 11, each with a vertical side disposed opposite to hanger 5.

To the under side of base 12 of a second car, which may be considered the "trailer," I pivotally secure draw-head 13, extending parallel with and beyond the base. Within draw-head 13 I provide an opening 14, extending throughout a portion of its length, with an aperture in the outer end adapted to receive draw-bar 6. Within the upper portion of chamber 14 I pivotally secure pawl 15, adapted to engage the notches 11 and lock draw-bar 6 within chamber 14. For the purpose of releasing such coupling when desired I form an opening 16 in the upper wall of chamber 14 adjacent to pawl 15, and through such opening I pass a cord or wire 17. This cord or wire I attach within the chamber to pawl 15, whereby said pawl may be lifted by a pull exerted on such cord.

To more conveniently manipulate cord 17, I pass it through dash 18, over a pulley 19 mounted therein, and attach it to a lever 20, fulcrumed upon the inner side of the dash.

To the under side of buffers 3 and 3^a and equally distant from the middle thereof I secure springs 21 and attach the other ends thereof to draw-bar 6 and draw-head 13, so disposed as to normally hold such draw-bar and draw-head parallel with the length of the car; but allowing angular displacement upon pivots 22 and 23 to permit the cars to go around curves in the road.

The operation of my improved car-coupler is as follows: Considering the cars coupled, as shown in the drawings, it being desired to uncouple them an operative depresses the end of lever 20, pulling cord 17, and thereby lifts pawl 15 out of engagement with the vertical face of notches 11. The draw-bar is thus freed from engagement with the draw-head, and the further movement of the motor-car withdraws said bar. To couple the cars, one car is advanced toward the other, when, the

draw-head and draw-bar being held in alignment by springs 21, the draw-bar enters the opening in the end of draw-head, passes under pawl 15, which engages notches 11 and prevents the withdrawal of said draw-bar. Any slack that there might be owing to the distance between notches 11 is taken up by springs 10, preventing jerks in stopping and starting.

It is obvious that each end of each car may be provided with the draw-head 13 and the draw-bar 6 be made with notches at each end and independent from the car. It is also obvious that the draw-head and the draw-bar might be constructed integral and so pivoted, as at 23, that either the draw-head or the draw-bar could be swung from under the car, as occasion might require. For these and other reasons I do not limit myself to the specific construction here shown and described, claiming such modification and adaptations thereof as are within the knowledge of workmen skilled in the art.

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

1. In a device of the character described, the combination of a pivotally-secured draw-bar with a plurality of notches formed transversely within the upper face thereof, a pivotally-secured hollow draw-head adapted to receive said draw-bar, a pawl transversely pivoted within said draw-head adapted to engage the notches in the draw-bar, a cord se-

cured to the pawl and passed through the upper wall of the draw-head, adapted to lift said pawl, a pulley over which said cord passes, and a lever to which it is secured adapted to pull said cord.

2. In a device of the character described, the combination of a pivotally-secured hollow draw-head, a pawl transversely pivoted therein, a pivotally-secured draw-bar, notches formed transversely within the face of said draw-bar adapted to engage with said pawl, springs secured to the said draw-bar, adapted to bear against the draw-head.

3. In a device of the character described, the combination of a pivotally-secured hollow draw-head, a pawl transversely pivoted therein, a pivotally-secured draw-bar, notches formed transversely within the face of said draw-bar adapted to engage with said pawl, springs secured to the said draw-bar, adapted to bear against the draw-head, springs connected to the draw-bar and adapted to hold it parallel with the length of the car, springs similarly connected to the draw-head for a similar purpose, a cord attached to the pawl, passed through the upper wall of the draw-head, adapted to lift the pawl, a lever to which said cord is connected adapted to manipulate said cord.

ROBERT B. ADKINS.

In presence of—

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