

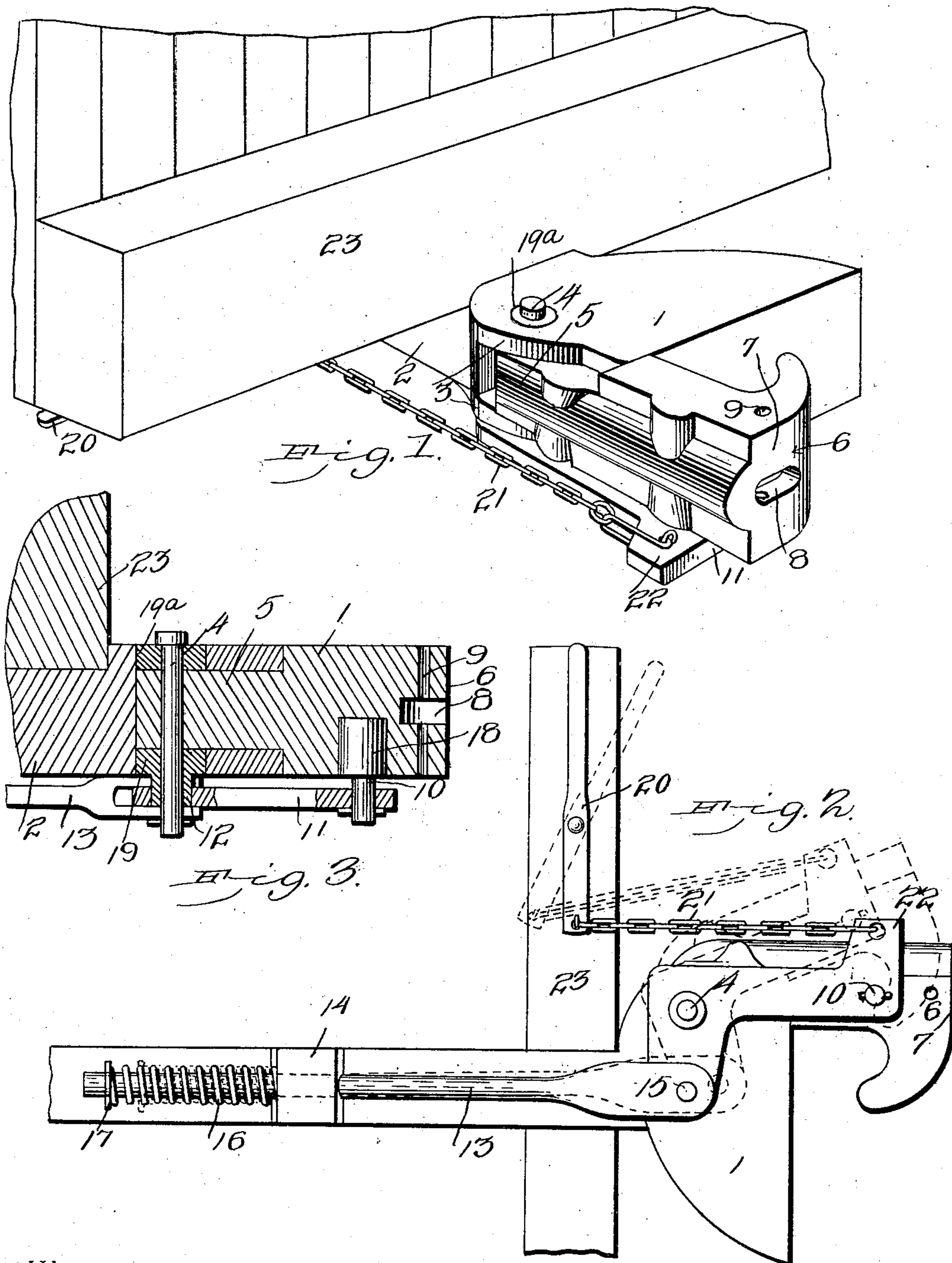
No. 735,695.

PATENTED AUG. 11, 1903.

P. BAKER.  
CAR COUPLING.

APPLICATION FILED OCT. 22, 1902.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

PHILIP BAKER, OF MEMPHIS, MISSOURI.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 735,695, dated August 11, 1903.

Application filed October 22, 1902. Serial No. 128,345. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP BAKER, a citizen of the United States, residing at Memphis, in the county of Scotland and State of Missouri, have invented a new and useful Car-Coupler, of which the following is a specification.

The invention relates to improvements in car-couplers.

The object of the present invention is to improve the construction of car-couplers and to provide a simple, inexpensive, and efficient one of great strength and durability, adapted to be readily applied to a car and capable of automatically coupling when two cars come together and adapted to be readily uncoupled without going between the cars.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention. Fig. 2 is a reverse plan view of the same. Fig. 3 is a longitudinal sectional view.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a draw-head provided with a shank or draw-bar 2, which is designed to be mounted on a car in the usual manner. The draw-head 1 is provided at one side with a recess, forming upper and lower ears 3, which are perforated for the reception of a knuckle-pin 4. The recess receives a shank or reduced portion 5 of a hook or knuckle 6, which is pivoted to the draw-head by the knuckle-pin and which is adapted to swing laterally in coupling and in uncoupling. The knuckle or hook, which is provided with a hook-shaped engaging portion, may be arranged either at the right or left hand side of the draw-head, which is provided with a flat front face 7 and which forms an efficient bumper. The outer end of the knuckle is provided with a link opening or cavity 8, and it has a coupling-pin perforation 9, adapted to receive the ordinary coupling-pin for enabling the car-coupling to be connected with cars having the ordinary pin-and-link car-

coupling. The pivoted hook or knuckle is provided at its lower face with a depending pivot or stud 10, to which is connected one arm of a bell-crank lever 11, which is fulcrumed at its angle on a depending pivot or stud 12 of the draw-head. The other arm of the bell-crank lever is connected with a spring-actuated rod or plunger 13, passing through an opening of a lug 14 of the shank or draw-bar of the draw-head and having its outer ends enlarged and bifurcated to receive the adjacent arm of the bell-crank lever. The sides of the bifurcation are perforated for the reception of a pivot 15, and the inner portion of the rod or plunger receives a coiled spring 16, interposed between the lug 14 and a pin 17, which passes through the rod or plunger. The coiled spring holds the knuckle or hook normally closed or in an engaging position, and it prevents the knuckle or hook from becoming accidentally displaced or moved out of position for automatic coupling, thereby obviating the necessity of going between cars and setting the knuckle or hook for automatic coupling.

The pivot or stud 10 may be provided with a shank 18, secured in a socket of the lower face of the pivoted knuckle or hook. The other pivot 12 is tubular and is formed integral with an enlarged sleeve 19, secured within the perforation of the lower ear of the draw-head. The shank 18, the enlarged sleeve 19, and an upper sleeve 19<sup>a</sup> may be secured in the draw-head by a screw-thread or any other suitable means, and, if desired, these parts may be formed integral with the knuckle and the draw-head.

The knuckle or hook may be connected with an uncoupling-lever 20 by a chain 21 or other flexible connection secured to a lug or ear 22 of the outwardly-extending arm of the bell-crank lever; but the flexible connection may be arranged in any other desired manner. The uncoupling-lever is fulcrumed between its ends beneath the car to enable the operation of coupling to be performed from one side thereof; but it will be readily apparent that when it is applied to the platform of a coach it may be readily changed to suit its new arrangement and any other means may be employed for enabling the operation of uncoupling to be performed from



either side or top of a car or from the platform of a coach.

It will be seen that the car-coupling is simple, inexpensive, strong, and durable, that it is capable of coupling automatically when two cars come together, and that it may be readily uncoupled without going between cars. It will also be seen that the spring always maintains the knuckle or hook in position for automatically coupling and obviates the necessity of going between cars to arrange the parts for such operation.

What is claimed is—

1. In a car-coupler, the combination with a draw-head, of a knuckle pivoted thereto, a bell-crank lever pivoted at its elbow and having one of its arms disposed parallel of and connected to the knuckle, a spring-controlled rod connected to the other arm of the lever and operating to maintain the knuckle normally in its engaging position, a releasing-lever, and operative connections between the same and the knuckle; whereby the latter may be moved by the former, against the action of the spring-controlled rod, to a disengaging position.

2. A car-coupling comprising a draw-head provided at one side with ears, a sleeve secured within one of the ears and having a de-

pending tubular pivot, a knuckle-pin passing through the ears and through the tubular pivot, a knuckle mounted on the knuckle-pin and having a socket at its lower face, a stud secured within the socket and having a depending pivot, a bell-crank lever fulcrumed on the tubular pivot and receiving the other pivot, and a spring-actuated rod or plunger connected with the bell-crank lever, substantially as described.

3. A car-coupling comprising a draw-head provided at one side with upper and lower ears, a tubular pivot depending from the lower ear, a knuckle-pin passing through the ears and through the tubular pivot, a knuckle connected with the draw-head by the knuckle-pin, a pivot depending from the knuckle and having a shank secured to the same, a lever fulcrumed on the tubular pivot and connected with the depending pivot of the knuckle, and means for operating the lever, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PHILIP BAKER.

Witnesses:

JAMES R. BAKER,  
O. A. BARNES.