

No. 667,752.

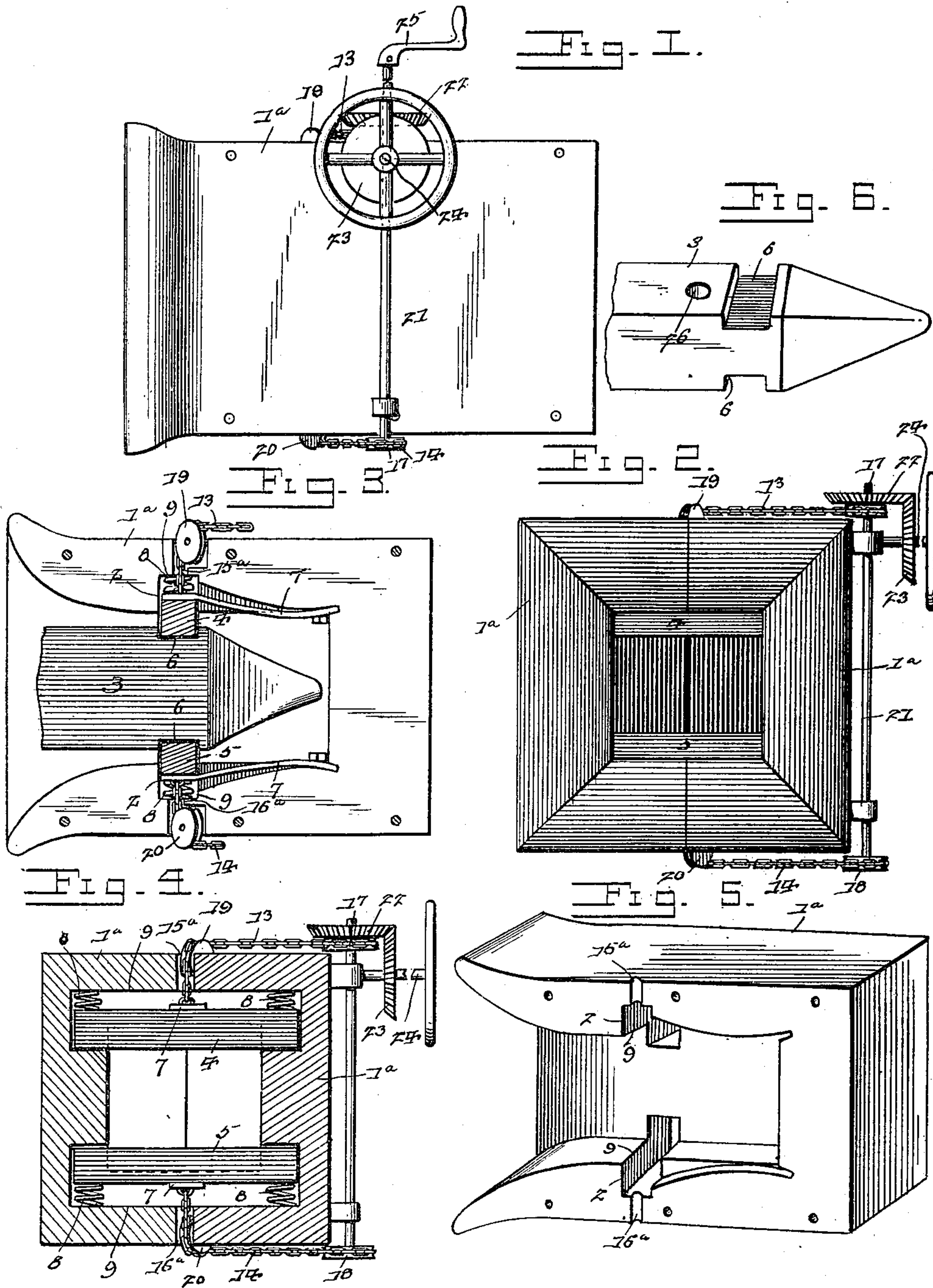
Patented Feb. 12, 1901.

G. O. WHITE.

CAR COUPLING.

(Application filed Aug. 9, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE O. WHITE, OF HARMON, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 667,752, dated February 12, 1901.

Application filed August 9, 1900. Serial No. 26,428. (No model.)

To all whom it may concern:

Be it known that I, GEORGE O. WHITE, a citizen of the United States, residing at Harmon, in the county of Lamar and State of Texas, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to improve the construction of car-couplings and to provide a simple and comparatively inexpensive one capable of coupling automatically when two cars come together and adapted to be readily operated to uncouple cars without going between them.

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 claim hereto appended.

In the drawings, Figure 1 is a side elevation of a car-coupling constructed in accordance with this invention. Fig. 2 is a front elevation of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a transverse sectional view. Fig. 5 is a detail perspective view of one of the sections of the draw-head. Fig. 6 is a detail view of one end of the link.

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

1 designates a draw-head designed to be mounted on a car in the usual manner and composed of two longitudinal sections 1^a to facilitate assembling the parts. The draw-head is provided with a flaring mouth, and it has upper and lower shoulders 2 arranged at its throat and formed by transverse grooves, and the said draw-head is adapted to receive a coupling-link 3, which is engaged by upper and lower spring-actuated jaws 4 and 5. The link consists of a bar and is provided at its upper and lower faces with transverse grooves 6 for the reception of the jaws 4 and 5, which are constructed alike, consisting of a transverse engaging portion or head and a longitudinal resilient shank or spring 7. The resilient shanks or springs 7 of the jaws are arranged in suitable longitudinal grooves and are secured at their rear ends by bolts or other suitable fastening devices passing through the upper and lower portions of the draw-head.

The upper and lower jaws are held in engagement with the link by means of springs 8, arranged in pairs at opposite sides of the center of the draw-head, as clearly illustrated in Fig. 3 of the accompanying drawings, and the said springs are interposed between the top and bottom of the draw-head and the adjacent faces of the jaws and are located in the transverse grooves 9.

The upper and lower jaws are disengaged from the link to effect the operation of uncoupling by means of upper and lower chains 13 and 14, located at the top and bottom of the draw-head, as clearly shown in Fig. 3. The upper and lower chains pass through upper and lower openings 15^a and 16^a of the top and bottom of the draw-head and extend to upper and lower drums 17 and 18 and pass over guide-pulleys 19 and 20, which are mounted within the upper and lower portions of the draw-head and arranged to direct the chains to one side of the same. The upper and lower guide-pulleys are set at an angle, as clearly shown in the accompanying drawings, and the rear ends of the chains are adapted to be wound around the pulleys 17 and 18, which are disposed horizontally at the top and bottom of the draw-head and which are fixed by keys or other suitable fastening devices to a vertical shaft 21. The vertical shaft 21, which is connected by bevel-gears 22 and 23 with a horizontal shaft 24, is adapted to extend to the top of a car and is provided at its upper end with a crank-handle 25, by means of which it is rotated to wind the chains or other flexible connections around the upper and lower drums. The horizontal shaft 24, which is designed to be arranged in suitable bearings, extends from one side of the draw-head to one side of a car to enable the operation of uncoupling to be performed at that point without going between the cars. By this construction the operation of uncoupling may be performed from the top and sides of cars, as the operating mechanism of a car is designed to be arranged at opposite sides thereof, so that when two cars are coupled the operating mechanism will be so disposed that the operation of uncoupling may be performed from either side of the car. Any suitable device, such as a pawl and ratchet, may be employed for enabling the jaws to be locked

in their open position. The link 3, which has its ends tapered to enable it to open the jaws automatically when two cars come together for coupling, is provided with coupling-pin perforations 26 to enable cars having the ordinary pin-and-link car-coupling to be coupled with cars having the coupling herein shown and described.

It will be seen that the car-coupling is simple and comparatively inexpensive in construction, that the operating mechanism will enable the operation of uncoupling to be performed from the top and sides of cars, and that it is capable of coupling automatically when two cars come together.

What I claim is—

In a car-coupling, the combination of a draw-head composed of two sections and provided with longitudinal grooves and having upper and lower openings extending through the top and bottom of the draw-head, the upper and lower transverse jaws provided with the longitudinal springs 7 arranged in the said grooves and secured at their rear ends

to the draw-head, the link provided with upper and lower transverse grooves to receive the jaws and having its ends reduced and tapered, pulleys arranged at an angle in the upper and lower openings of the draw-head, flexible connections secured to the jaws and extending therefrom to the pulleys through the said top and bottom openings, the vertical shaft journaled in suitable bearings and mounted on the draw-head at one side thereof and provided with drums located at the upper and lower faces of the draw-head, said drums receiving the outer ends of the flexible connections, a horizontal shaft extending to one side of the car, and gearing connecting the shafts, 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.

GEORGE O. WHITE.

Witnesses:

J. M. LONG,
W. R. ALLEN.