

No. 746,458.

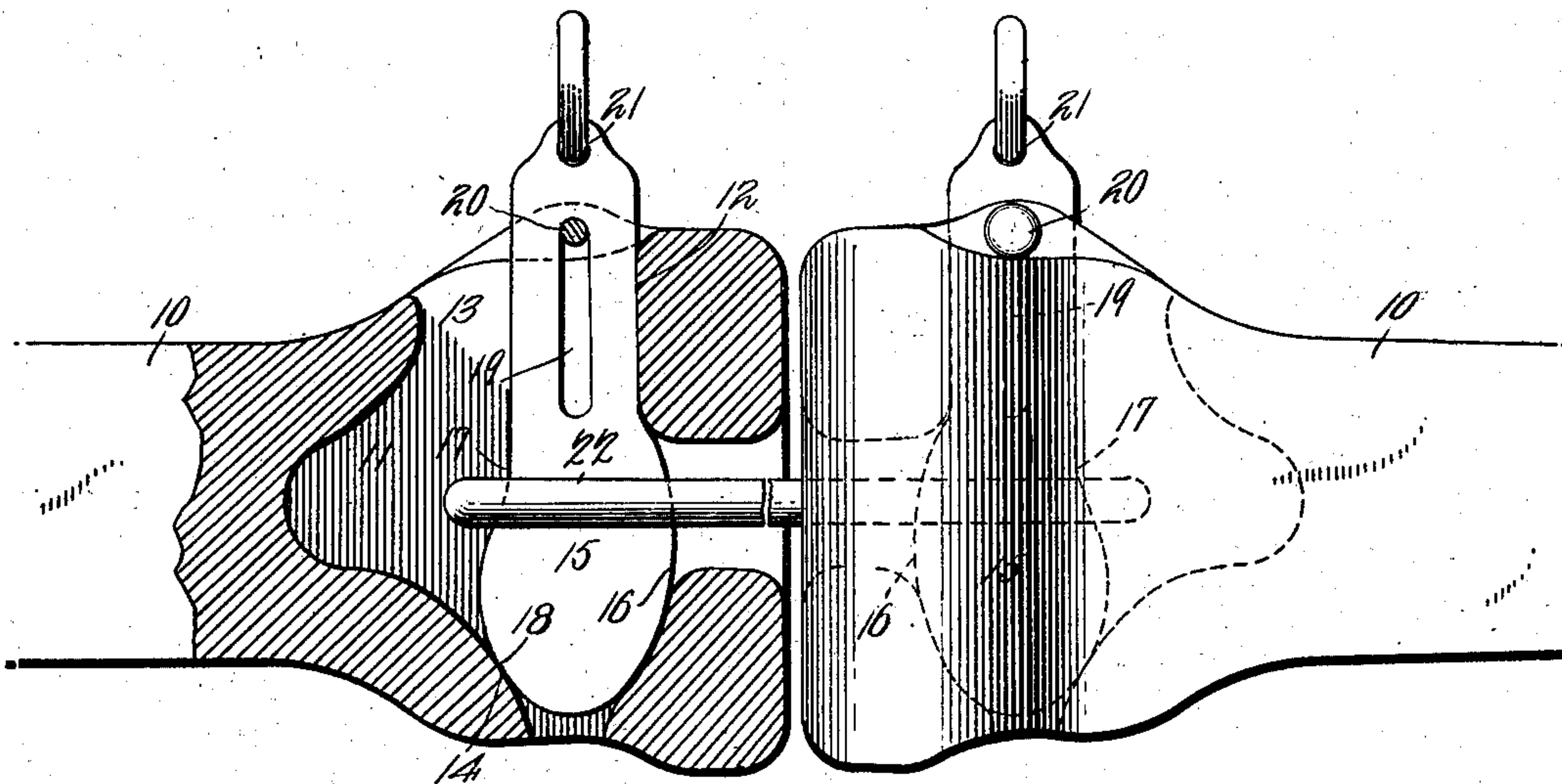
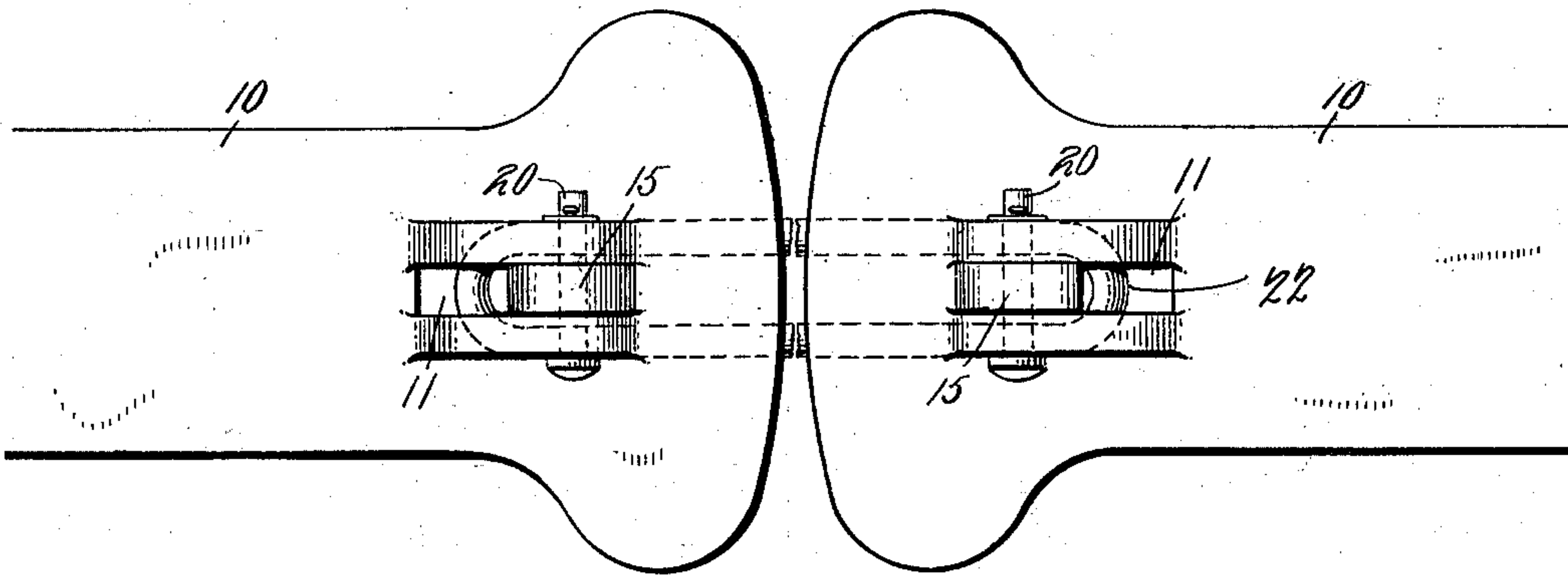
PATENTED DEC. 8, 1903.

L. C. CARTER.  
CAR COUPLING.

APPLICATION FILED APR. 2, 1903.

NO MODEL.

*Fig. 1.*



*Fig. 2.*

Witnesses  
*E. H. Stewart*  
*C. H. Woodward*

By *L. C. Carter*, Inventor.  
*C. H. Woodward*  
Attorneys



# UNITED STATES PATENT OFFICE.

LOUIS C. CARTER, OF ADVANCE, TEXAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 746,458, dated December 8, 1903.

Application filed April 2, 1903. Serial No. 150,800. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS C. CARTER, a citizen of the United States, residing at Advance, in the county of Parker and State of Texas, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to improvements in devices for coupling cars, and has for its object to improve and simplify the construction of devices of this character and to produce a coupling which will utilize the link commonly employed and couple automatically and be capable of being uncoupled from outside the path of the car and obviate the necessity of the operator going between the cars.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a plan view of two opposing draw-heads with the improvements embodied therein. Fig. 2 is a side view thereof partly in section.

The improved device comprises a draw-head 10, having a longitudinal recess 11 opening outwardly from its forward end, the rear portion of the draw-head constructed to fit any of the various constructions of cars, both freight and passenger, but preferably for freight-cars employed for various purposes for which the improved device is more particularly adapted. Intersecting the cavity 11 is a vertical cavity 12, with the upper portion extended rearwardly above the longitudinal cavity, as at 13, while the rear side at 14 is curved rearwardly and merged into the bottom side of the longitudinal cavity. Movably disposed in the vertical cavity is a catch-pin 15, having its forward side convex, as at 16, and extending into the longitudinal cavity for a short distance and its rear side intermediately concaved, as at 17, and its lower rear side curving upwardly and rearwardly, as at 18, and merging into the lower side of the longitudinal cavity, as shown at the left in Fig. 2. The upper portion of the catch-pin is provided with a longitudinal slot 19, through which a stop-bolt 20 passes, the bolt being transversely disposed in the draw-head, as shown.

The catch-pin 15 is provided with suitable means, such as an eye 21, for the attachment of a lifting rod or lever operative from the sides and top of the car; but as these appliances and their modes of operation are so well understood they are not illustrated. I do not, therefore, wish to be limited to the use of any specific device for this purpose, but reserve the right to employ any suitable pin-operating means.

The catch-pins 15 will be so formed that the concave portion 17 will come about opposite the central portion of the longitudinal cavity 11, so that the link (represented at 22) will operate against the concave portion when the draft is applied, and thus prevent the strains from exerting an upward force upon the catch-pin, but, on the contrary, causing the strains to exert a positive downward force, as will be obvious. The convex portion 16 of the pin 15 extending into the forward portion of the longitudinal cavity, as shown in Fig. 2, coacts with the concave rear portion 17 to effectively prevent any upward movement of the catch-pin while the strains are applied, as will also be obvious. By this means the pin 15 will be self-sustaining in its operative position and will not be released by any jarring motions to which the draw-heads may be subjected.

When coupling the cars, the link 22 will be manually inserted in one of the draw-heads, if not already there, with the pins 15 in both draw-heads disposed in their lowered or operative positions. Then as the cars are brought together the entering link striking the pin 15 causes its incline 18 to "ride" the part 14 and causes the lower end of the pin to swing inwardly and to rise upwardly into the extension 13 and permit the link to pass beneath the pin, the pin falling by gravity, passing through the link, and returning to its former position automatically, and thereby completing the coupling.

The slot 19 and bolt 20 coact to regulate the movement of the catch-pin and prevent its displacement and are therefore important features of the invention.

The draw-head and other portions may be constructed of any suitable material and of any suitable size and strength to enable them to effectually resist the severe strains to



which they will be subjected, which will not be greater, however, than the strains ordinarily met with in devices of this character.

The whole device is very simple, cheap, and can be constructed to fit any size or form of car.

It will be noted that the vertical cavity extends entirely through the draw-head to provide for the proper drainage of the cavities and prevent the accumulation therein of water, snow, or other foreign matter being reduced at the point where it passes through the bottom of the draw-head to prevent the passage therethrough of the catch-pin.

Having thus described the invention, what I claim is—

1. The combination in a car-coupling, of a draw-head having a longitudinal recess and an intersecting vertical recess, said vertical recess extended rearwardly above said longitudinal recess and with its rear side curving toward and merging into the lower side of said longitudinal recess, a catch-pin movable within said vertical recess and with its rear side intermediately concaved and its lower rear side curved forwardly and engaging said oppositely-curving wall of the vertical recess and with its forward side convex and projecting into said longitudinal recess, and a link inclosing said pin and engaging its concaved portion, substantially as specified.

2. The combination in a car-coupling, of a draw-head having a longitudinal recess and an intersecting vertical recess, said vertical recess extended rearwardly above said longitudinal recess and with its rear side curving toward and merging into the lower side of

said longitudinal recess, a catch-pin having a longitudinal slot operating over a guide-pin transversely disposed in said draw-head, and movable within said vertical recess and with its rear side intermediately-concaved rear edge and its lower rear side curving forwardly and engaging said oppositely-curving wall of the vertical recess, and with its forward side convex and extending into said longitudinal recess, and a link inclosing said pin and engaging its concaved portions, substantially as specified.

3. The combination in a car-coupling, of a draw-head having a longitudinal recess and an intersecting vertical recess, said vertical recess extended rearwardly above said longitudinal recess and with its rear side curving toward and merging into the lower side of said longitudinal recess, a catch-pin movable within said vertical recess and having its rear side intermediately concaved and its lower rear side curved forwardly and engaging said oppositely-curving wall of the vertical recess and with its forward side convex and extending into said longitudinal recess, a link inclosing said pin and supported by its concaved portion, and means operative from above or to one side of the cars for actuating the catch-pin, substantially as specified.

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

LOUIS C. CARTER.

Witnesses:

H. G. BIGGERS,  
R. L. MEEKS.