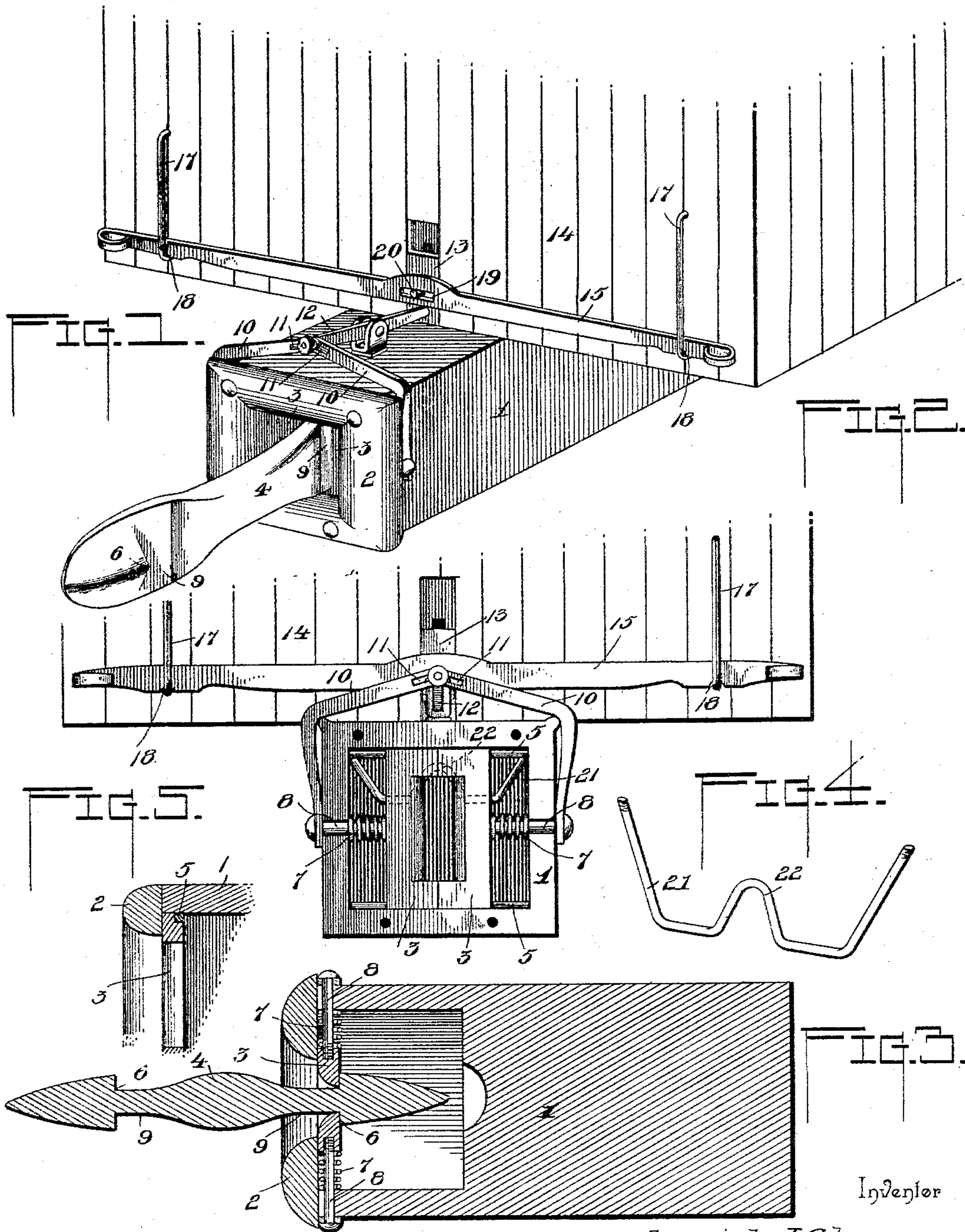


(No Model.)

A. J. GLENN.
CAR COUPLING.

No. 589,714.

Patented Sept. 7, 1897.



Inventor

Amariah J. Glenn.

Witnesses

W. L. Lawrence.
J. F. Riley

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

AMARIAH J. GLENN, OF SPRUCE, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 589,714, dated September 7, 1897.

Application filed February 27, 1897. Serial No. 625,354. (No model.)

To all whom it may concern:

Be it known that I, AMARIAH J. GLENN, a citizen of the United States, residing at Spruce, in the county of Indiana and State of Pennsylvania, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to improve the construction of car-couplers and to provide a simple, inexpensive, and efficient one capable of coupling automatically and adapted to be readily uncoupled from the tops
15 and sides of cars without going between them.

A further object of the invention is to provide a car-coupling adapted to couple readily on curves and capable of automatically uncoupling should a car become derailed or overturned, whereby one car is prevented from
20 dragging others down an embankment after it.

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

In the accompanying drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied to a car. Fig. 2 is a front
30 elevation of the same, the end plate of the draw-head being removed. Fig. 3 is a horizontal sectional view. Fig. 4 is a detail perspective view of the link-holder. Fig. 5 is a detail sectional view illustrating the manner
35 of mounting the sliding jaws.

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

1 designates a draw-head provided with a
40 removable end plate 2 and having a pair of spring-actuated jaws 3 mounted in it and adapted to engage a coupling-link 4. The removable end plate 2, which is secured to the draw-head by suitable fastening devices,
45 is provided with an opening and is beveled around the same to form a flaring mouth for the draw-head.

The spring-actuated jaws 3, which are disposed vertically, are arranged to slide horizontally in a plane transversely of the draw-head, and they are supported at their upper
50 and lower edges by transverse rods 5. The

transverse rods 5 are disposed horizontally and the upper and lower edges of the jaws are recessed at their inner faces to receive
55 the rods, the jaws being interposed between them and the front plate of the draw-head. The inner edges of the jaws are beveled to form a flaring opening between the jaws, and the beveled edges, which extend to within a
60 short distance of the top and bottom of the jaws, are adapted, when two cars come together for coupling, to be engaged by the link 4 and spread sufficiently to permit the shoulders 6 to pass between them and engage their
65 rear or inner faces, whereby the operation of coupling is automatically effected.

The springs 7, which actuate the jaws for holding them closed and normally in engagement with the link, are disposed on rods 8
70 and interposed between the outer edges of the jaws and the sides of the draw-head, which is provided with openings through which the outer portions of the rods 8 project.

The link 4 has its ends flattened slightly
75 or reduced in thickness and enlarged, and each end is tapering and substantially arrow-shaped, being provided at its opposite faces with tapering enlargements or bosses forming the shoulders 6. The space or portion 9 be-
80 tween the shoulders 6 and the central portion of the link is of sufficient length to permit the necessary play of the draw-heads in order that the cars of a train may be success-
85 sively started.

Should a car overturn, the link will twist or turn in the draw-head and automatically spread the jaws and disengage itself there-
90 from to effect the operation of uncoupling and thereby prevent one car from dragging another after it over an embankment or the like.

The outer ends of the horizontal rods 8, which are connected with the jaws, are provided with heads which are engaged by de-
95 pending arms of a pair of substantially L-shaped or bell-crank levers 10. The levers 10, which are fulcrumed at their angles on the upper longitudinal edges of the draw-head, have their lower ends bifurcated and
100 straddling the rods 8, and the upper arms of the levers 10 extend inward transversely of the draw-head at a slight inclination, as clearly illustrated in Fig. 2 of the accompanying

drawings. The upper ends of the bell-crank levers are provided with slots 11, which overlap and receive the outer end of a longitudinal lever 12, whereby the latter is connected
5 with both of the transversely-disposed bell-crank levers.

The longitudinal lever 12, which is fulcrumed between its ends on the draw-head, has its inner end arranged in an opening of a
10 vertically-reciprocating slide 13, and the latter is mounted in suitable ways of a car 14 and is operated by a transverse lever 15. The longitudinal lever has its inner portion loosely arranged in the opening of the slide, and this
15 connection permits the necessary longitudinal movement or play of the draw-head.

The operating-lever is arranged in vertical keepers 17, being provided at its ends with suitable handles and at its lower edge with
20 notches 18, which engage the lower ends of the vertical keepers 17. The central portion of the operating-lever is provided with a longitudinal slot 19, which receives a stud or projection 20 of the vertical reciprocating
25 slide, and when either end of the operating-lever is lifted its other end is fulcrumed on the adjacent keeper and the slide is moved upward to operate the spring-actuated jaws through the longitudinal and transverse le-
30 vers.

When the link is engaged by the spring-actuated jaws, it is supported by a link-holder 21, mounted in the draw-head at the inner side of the jaws and provided with a
35 substantially U-shaped bend 22, that arches over the link and receives the upper edge thereof.

Any suitable means may be employed for mounting the draw-head on a car, and any
40 suitable operating mechanism can be used for effecting the operation of uncoupling from the tops of cars or the platform of a coach.

It will be seen that the car-coupling is simple and comparatively inexpensive in construction, that it is positive and reliable in
45 operation, capable of coupling on curves, and adapted to couple automatically. It will also be apparant that the operation of uncoupling

may be readily effected from the tops and sides of cars and that the device will automatically uncouple should a car overturn.

What I claim is—

1. In a car-coupling, the combination of a draw-head, oppositely-disposed spring-actuated jaws mounted within the draw-head, an arrow-headed link, and a transversely-disposed link-holder mounted within the draw-head in rear of the jaws and provided above the link with a substantially U-shaped bend, substantially as and for the purpose described.

2. In a car-coupling, the combination with a car, and a draw-head, of spring-actuated jaws mounted within the draw-head, a longitudinal lever fulcrumed on the draw-head and connected at its outer end with the spring-actuated jaws, a vertically-reciprocating slide mounted in suitable ways of the car, having an opening to receive loosely the inner portion of the longitudinal lever and provided with a stud or projection, vertical keepers mounted on the car, and an operating-lever arranged in said keepers, provided at its center with a slot to receive the projection or stud, and having notches for engaging the bottoms of the keepers, substantially as described.

3. In a car-coupling, the combination with a car, and a draw-head, of spring-actuated jaws mounted within the draw-head, a vertically-reciprocating slide mounted in suitable ways of the car and having an opening, a longitudinal lever fulcrumed on the draw-head and connected at its outer end with said jaws, the inner end of the lever being loosely arranged in the opening of the slide and capable of longitudinal movement independent of the latter, and means for reciprocating the slide, substantially as and for the purpose described.

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

AMARIAH J. GLENN.

Witnesses:

J. H. SIGGERS,
H. H. SIMMS.