

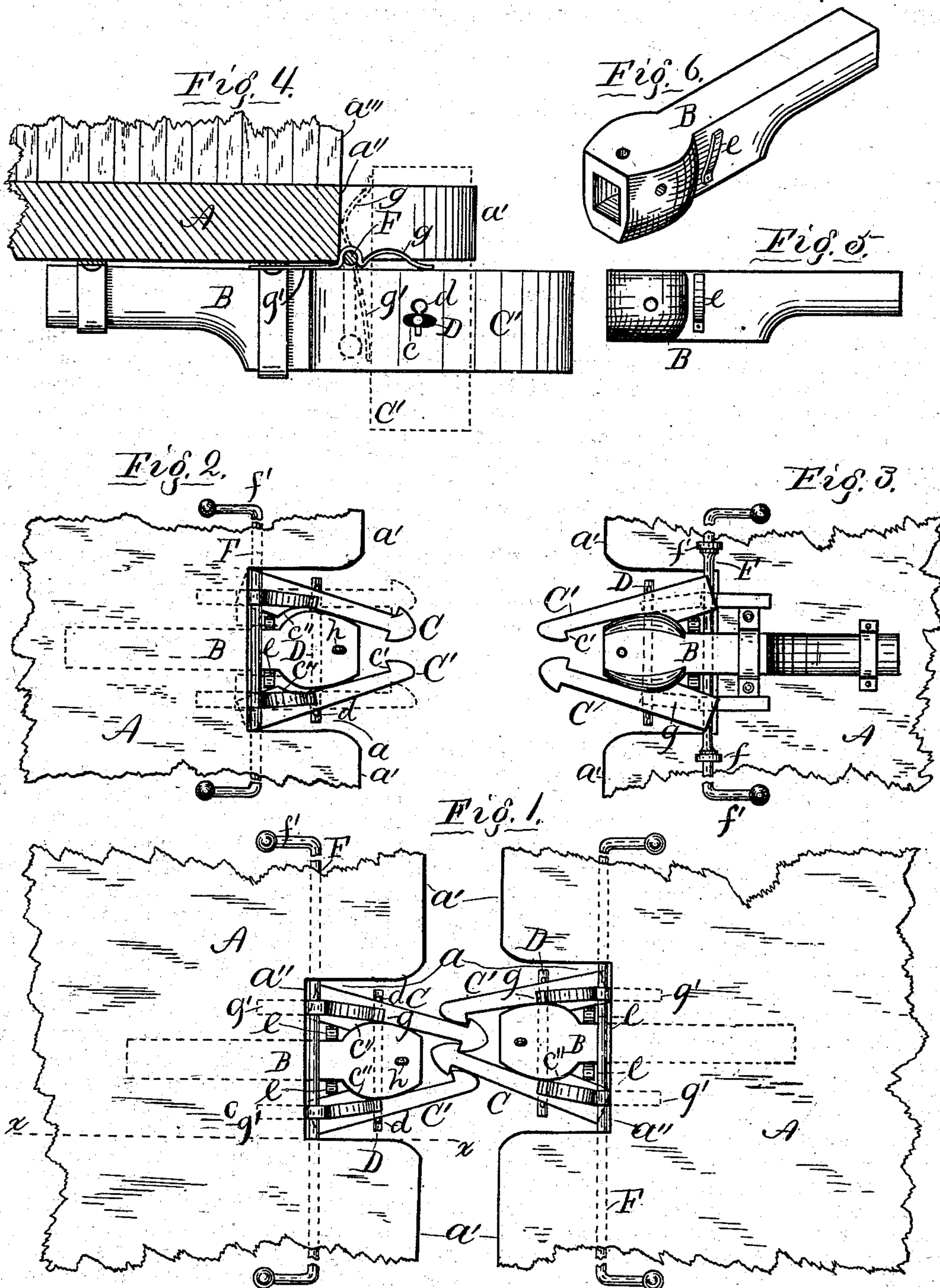
(No Model.)

J. A. WALKER.

CAR COUPLING.

No. 267,621.

Patented Nov. 14, 1882.



Witnesses:
S. R. Richards.
Jm Young

Inventor:
Jas. A. Walker,
By, W. B. Richards,
his atty.

UNITED STATES PATENT OFFICE.

JAMES A. WALKER, OF GALESBURG, ILLINOIS, ASSIGNOR OF ONE-HALF TO
CLARK E. CARR, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 267,621, dated November 14, 1882.

Application filed July 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. WALKER, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to railway-car couplings; and it consists in combinations and constructions hereinafter described, and set forth in the claims hereto annexed.

15 In the accompanying drawings, which illustrate my invention, Figure 1 is a top plan. Fig. 2 is also a top plan, with the parts in different relative positions from that shown in Fig. 1; Fig. 3, a plan seen from below; Fig. 4,
20 an enlarged sectional elevation in line *x x* in Fig. 1; Fig. 5, a detail—a side elevation of the draw-head alone. Fig. 6 is a perspective of the draw-head alone.

Referring to the drawings by letters, the
25 same letter indicating the same part in the different figures, letter A represents a portion of the bottom of a car, which may be of any desired construction, with a central recess, *a*, and side portions or bumpers, *a'*, which project for-
30 ward of the rear wall, *a''*, of the recess *a*. The wall *a''* should preferably be in about same vertical plane as the front end, *a'''*, of the car.

B is the draw-head, which may be attached to the car in any ordinary or desired manner,
35 with its forward end in about the same vertical plane as the forward ends of the bumpers *a'*. The forward end of the draw-head is enlarged laterally, and each side of the enlarged portion is formed as shown—that is, convex in
40 its longitudinal horizontal section and also convex in its transverse section—and preferably with its lower side somewhat narrower than its upper side.

C C' are jaws pivoted one to each side of the
45 draw-head B by a bolt, D, which passes horizontally through a slot, *c*, in each jaw, and through a hole in the draw-head. The side of each jaw C C' is concave where it rests against the adjacent side of the draw-head. The jaw
50 C is dart-shaped at its forward end, and the jaw C' has a hook or shouldered catch, *c'*, on

its forward end and side, confronting the jaw C. When the jaws C C' are drawn forward, as permitted by their slots moving on the bolt D, their curved sides at *c''* will be forced into con-
55 tact with the rear portions respectively of the convexed sides of the draw-head by means of the outer sides of the jaws C C' coming in contact with the pins *d* in the bolt D, and the front ends of the jaws be thereby forced over
60 and held near to each other, as shown at Fig. 1. When the jaws C C' are pushed backward, as shown by full lines at Fig. 2, the rear ends of said jaws will be free from the draw-head,

so as to permit separating the front ends of
65 the jaws, as shown by dotted lines at Fig. 2.

In addition to the movements of the jaws C C', hereinbefore described, they may also be swung or turned upwardly on the bolt D as a fulcrum, as shown by dotted lines at Fig. 4.
70 In turning the jaws downwardly from the position last described the springs *e*—one between the rear end of each jaw and the draw-head—will force the rear ends of the jaws outwardly and their forward ends toward each other.
75

F is a rod or shaft extending transversely across the bottom of the car, and is journaled in suitable bearings, *f*, so that it can be rocked or oscillated on its longitudinal axis by a crank, *f'*, at either or both of its ends. An arm, *g*,
80 extends forwardly from the shaft F over each jaw C C', and by turning the crank *f'* forwardly these arms will force said jaws downwardly and into their horizontal positions, as shown by full lines at Fig. 4. Arms *g'* project rearwardly
85 from the shaft F and act upon the rear ends of the jaws C C', and thereby turn or swing the jaws C C' upwardly, as shown by dotted lines at Fig. 4, when the crank *f'* is turned in an op-
90 posite direction to that last described. The movements of the jaws C C' downwardly at their forward ends are limited by their rear ends coming in contact with the shaft F, and their upward movements are limited by their forward ends coming in contact with the rear
95 wall of the recess *a* or the arms *g*, which come between the jaws and said wall. Any suitable stop or catch may be placed on the shaft F to retain the jaws C C' in their elevated positions. When the jaws C C' are in their horizontal po-
100 sitions they will couple two cars when brought together, as shown at Fig. 1, and when draft-

power is applied to either car it will draw the jaws outwardly lengthwise and tighten and secure the couplings, as hereinbefore described.

The shaft F may be turned to swing the jaws C C' upwardly on either car, as hereinbefore described, to uncouple the cars. In coupling, the jaws will be forced rearwardly, so they may separate at their forward ends, and the springs e will hold them sufficiently to prevent uncoupling until the jaws are drawn outwardly by the movement of the cars, and the coupling thereby securely fixed, as hereinbefore described.

It will be seen that in case either car should leave the track, should fall through a bridge, or be thrown from the track and turn over, the couplings will at once be separated. By using jaws C C' of considerable thickness vertically they are adapted to couple cars of different heights.

The shaft F may be made to operate the jaws C C' in a different manner from what I have shown, and may be operated from a rod extending to the top of the car.

Each draw-head is constructed with a recess in its front end, similar to the ordinary draw-head, whereby an ordinary link and pin, h, may be used to effect a coupling, when desired, by simply turning the jaws C C' into their vertical positions and out of the way.

In coupling, the bumpers a' will come in contact and prevent injury to other parts, and these bumpers may be constructed as shown, or they may be formed of projecting spring-bars or spring-bumpers.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, in combination with draw head or bar, jaws pivoted to said draw-bar, whereby they may swing both outwardly and upwardly at their forward ends, substantially as and for the purpose specified.

2. In a car-coupling, in combination with

the draw-bar, coupling-jaws adapted to couple at their front ends and to swing outwardly and upwardly, substantially as and for the purpose specified.

3. In a car-coupling, in combination with the draw-bar, coupling-jaws adapted to couple at their front ends, substantially as described, and to swing upwardly, for the purpose specified.

4. In a car-coupling, in combination with a draw-head, the jaws C C', constructed at their forward ends as described, and slotted where they are pivoted to the draw-head, substantially as and for the purpose specified.

5. In a car-coupling, in combination with a draw-head having an enlarged front end, with sides constructed substantially as described, slotted jaws C C', adapted to slide forward on their pivot to said draw-head for the purpose of securing them in place, and to slide rearward for releasing them, substantially as and for the purpose specified.

6. In a car-coupling, in combination with the draw-head, slotted jaws pivoted thereto, as described, springs e, arranged to operate therewith, substantially as and for the purpose specified.

7. In a car-coupling, in combination with jaws adapted to swing substantially as described, a rocking shaft adapted to swing the jaws in vertical planes, substantially as and for the purpose specified.

8. In a car-coupling, in combination with draw-bar B and swinging jaws C C', a rocking shaft, F, adapted to operate said swinging jaws, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. WALKER.

Witnesses:

HARRY M. RICHARDS,
THOMAS MCKEE.