(No Model.)

A. J. AVERY.

CAR COUPLING.

No. 263,836. Patented Sept. 5, 1882.

Fig. 2.

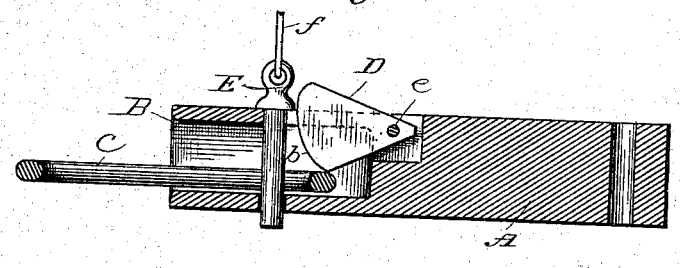

Fig. 1.

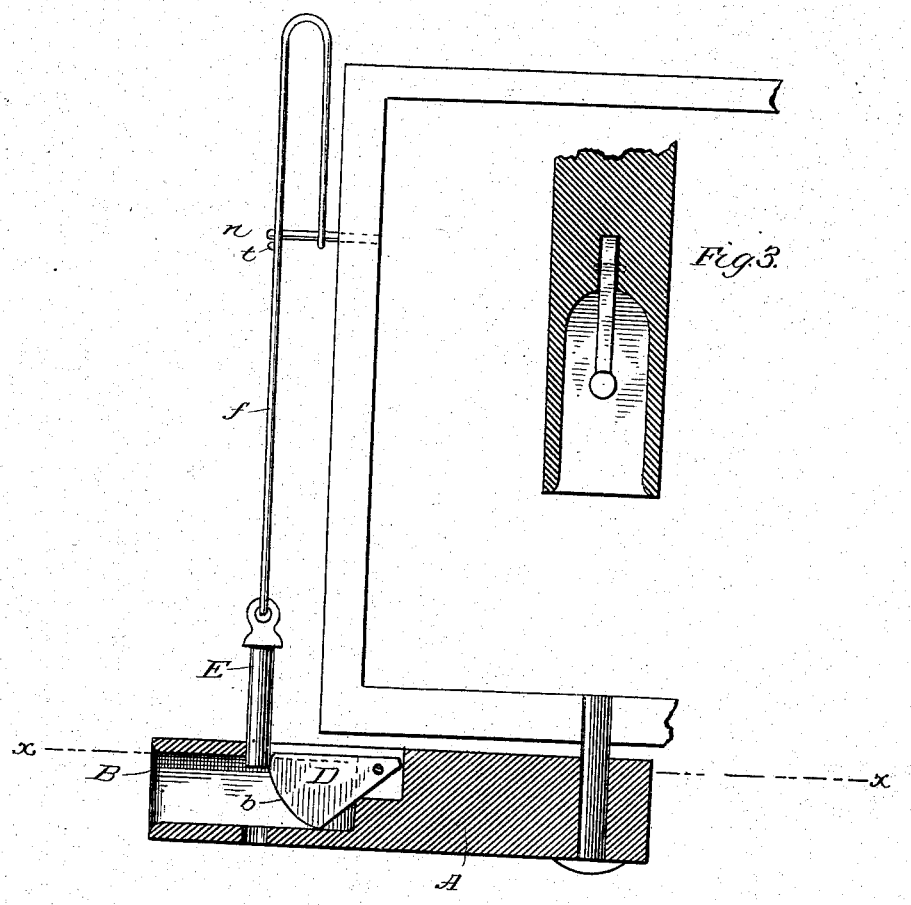

Fig. 3.

Attest:
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UNITED STATES PATENT OFFICE.

ANDREW J. AVERY, OF LYNN, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 263,836, dated September 5, 1882.

Application filed April 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. AVERY, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Car-Couplings, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to an improvement in that class of car-couplings in which the cars are automatically coupled when brought together, and can be uncoupled without the necessity of the operator going in between the platforms.

The object of the invention is to produce a simplified form of coupling which shall be positive in its operation, and to provide means whereby the same may be uncoupled from the top of the car.

The invention consists in the hereinafter-described combination of the draw-head, the coupling-pin, and latch-lever adapted to automatically bear against the coupling-pin and hold it in position.

It further consists in the combination of the said latch-lever with the draw-head and coupling-link.

It also relates to the mechanism whereby the coupling may be operated from the top of the car.

In the accompanying drawings, Figure 1 represents in side elevation a longitudinal vertical section of my improved coupling applied to the end of a car. Fig. 2 represents in side elevation a longitudinal vertical section of my improved coupling, and shows the relative position of the parts while connected with the coupling-link. Fig. 3 is a section on line *x x* of Fig. 2.

The draw-head A is attached directly to the bottom of the car in the usual manner, and is provided with a mouth or chamber, B, that opens inward from the end of the draw-head and allows free entrance and play to the coupling-link C. Opening out of the chamber B at its rear end is a vertical slot, which extends back into the draw-head A, and in this slot is arranged the latch-lever D, which has its rear end pivoted on the pin *e*, and, reaching forward, bears its opposite end against the coupling-pin E. Said lever is further provided with an inclined end, *b*, and permits of sufficient vertical movement to allow the end to be lifted away from the pin E. Said pin E is constructed in the usual manner, and operates vertically up and down through a hole in the draw-head. Said pin is connected with a rod, *f*, which reaches upward therefrom to the top of the car. The rod permits of vertical movement in its bearings, and carries an adjustable pin, *t*, that, coming in contact with the bearing *n*, limits the upward movement of the rod.

From the foregoing description it will be evident that in order to unshackle the cars the workman has only to lift upward the pin E (which may be done from the top of the car by means of the rod *f*) sufficiently to release the coupling-link C. The upward movement of the pin is limited by the finger *t* coming in contact with the bearing *n*, whereby the pin E is prevented from being lifted completely out of its socket. As the link C passes away from the latch-lever D the latch falls immediately onto the pin E, thereby cramping the pin against the draw-head A and holding it elevated, as shown in Fig. 1, and also that when the cars are brought together again for the purpose of shackling, the link, coming in contact with the incline *b*, pushes upward the latch D, thereby lifting it away from the pin E, which, when released, slides down to engage with the link C, as shown in Fig. 2. The latch should be allowed to bear upon the end of the link when the same is in engagement with the pin E, and should be of sufficient weight to overbalance the portion of the link which projects from the draw-head A. By this means the link is kept always in a suitable position to enter the draw-head on an opposing car.

It will be observed that the latch-lever is pivoted in a slot opening from the rear of the main chamber of the draw-head, and that this slot is situated above the highest point to which the rear end of the coupling-link can be elevated. The link, which is subject in use to constant strain and movement, thus hammers against the solid rear wall of the chamber B, and not against the latch-lever or the walls of the slot, which are thus protected from injury. The lever is thus enabled to move freely and

with certainty on its pivot. Were the blows of the link brought upon the latch, there would be danger of breaking the same and of twisting and bending the pin upon which it is pivoted.

I am aware of the patent of Kelly, No. 249,772, which clearly shows the principle upon which my coupling operates. I wish to disclaim this principle, and to confine my invention to the specific improvement shown in this application.

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

In a coupling, the combination of the chambered draw-head A, having vertical orifices for the coupling-pin, the coupling-link C, and the latch D, having curved face and pivoted in a slot opening from the rear end of the chamber in the draw-head, such slot being situated above the level of the coupling-link, all substantially as described.

In testimony whereof I have signed this specification in presence of two witnesses.

ANDREW J. AVERY.

Witnesses:
C. B. TUTTLE,
H. A. THURLOW.