

H. A. SKINNER.
Car-Couplings.

No. 149,687

Patented April 14, 1874.

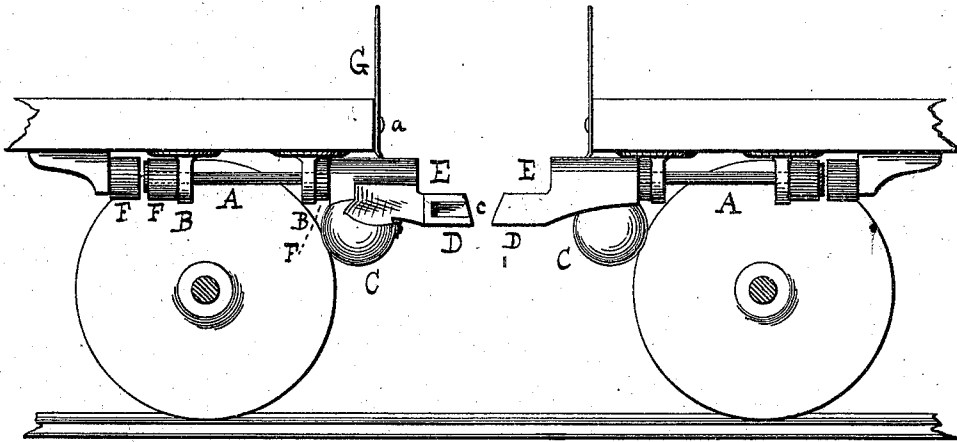


FIG. 1.

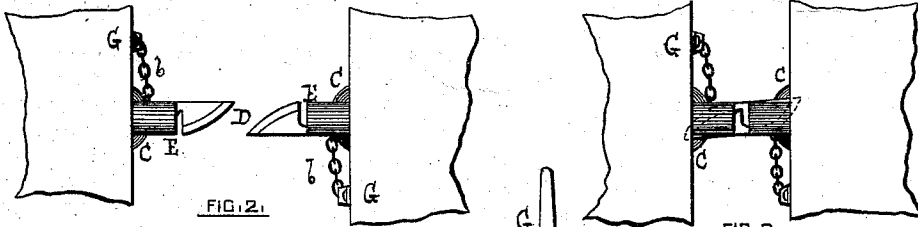


FIG. 2.

FIG. 3.

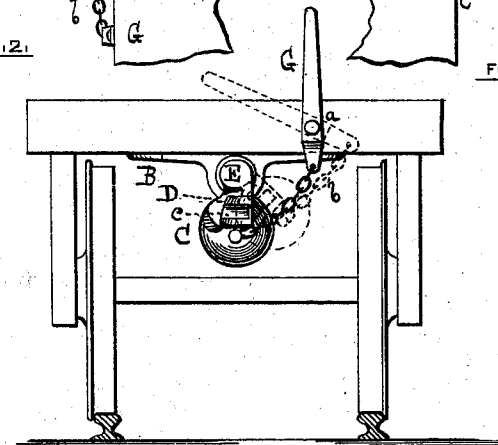


FIG. 4.

WITNESSES.

INVENTOR.

James C. Smith
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UNITED STATES PATENT OFFICE

HENRY A. SKINNER, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **149,687**, dated April 14, 1874; application filed January 28, 1874.

To all whom it may concern:

Be it known that I, HENRY A. SKINNER, of the city and county of Worcester, in the State of Massachusetts, have invented an Improvement in Car-Couplings; and declare the following to be a specification thereof.

In the accompanying drawings like letters indicate like parts.

Figure 1 is a side view of my invention. Fig. 2 is a top view of the same before coupling. Fig. 3 is a top view of the same after coupling. Fig. 4 is an end view of my invention.

My invention relates to that class of car-couplers which act automatically, in this case having a rotary motion, whereby the catches, swinging outwardly, glide past each other into place, and are locked together by the falling weight of the couplings themselves as they resume their former position. My improved coupler consists of a mass of metal cast in the peculiar shape shown in the drawings, and having a rotary motion imparted by its weight as it falls into a vertical position.

The rod A, having a limited revolution within its bearings B B, is placed above the center of gravity of this mass of metal, so that the ball or weight C naturally occupies the lowest place. Projecting therefrom, and also below the line of the axis of revolution, is a catch, D, with a beveled face upon its inner edge, as shown in Fig. 2. Above this is the buffer E, receiving the shock along the line of the rod A, which shock is resisted in the usual manner by the rubber or other springs F F F. As the catches D D of two couplers come in contact they strike each other on their inner and beveled edges, and, crowding against each other in passing, throw the balls C C out of the vertical line until, gliding along to the inner end of the catch, they fall together into place, being so actuated by the rotary movement of the balls C C as they gravitate into their normal position. The couplers are unlocked by means of the lever G, projecting above the platform for a handle, turning about

a screw, a, and operating, with its shorter arm, a chain, b, by which the coupling is rotated outwardly and disengaged. In flat cars the lever may better occupy a horizontal position, being operated from the side of the car by depressing it. Within the catch D I make a slot, c, so that if the adjoining car has the common coupling arrangement, the coupling would be accomplished by a link and bolt-pin, as usual. But when the train is made up entirely of cars provided with my improved couplings no links or bolts are required. The catches lock the cars sufficiently, while the weight of the balls C C prevent separation.

An advantage resulting from such a connection of the cars, and one of very great importance, is that in case a car is thrown from the track, my couplers disengage automatically, and the wreck of an entire train is prevented, as the car so overturned or thrown becomes thereby disconnected, and does not drag the others from the track.

So long as the cars keep the track the couplers cannot be separated except by operating the lever G, but as soon as a car leaves the line of the track the couplers separate on one end of the car and override each other on the opposite end.

By reason of the resistance and yielding power of the springs F F F my couplers are as well adapted to heavy freight-trains as the common link-coupling hitherto used.

I claim as a novel and useful invention and desire to secure by Letters Patent—

The rotating car-coupling consisting of the rod A, with its bearings B B, the ball C, the beveled catch D, the buffer E, the springs F F F, the lever G, with its connecting-chain, all combined substantially in the manner specified.

HENRY A. SKINNER.

Witnesses:

JAMES A. SMITH,
J. W. CLARK.