(No Model.)

C. HANSGEN.

CAR COUPLING.

No. 302,482. Patented July 22, 1884.

Fig. 1.

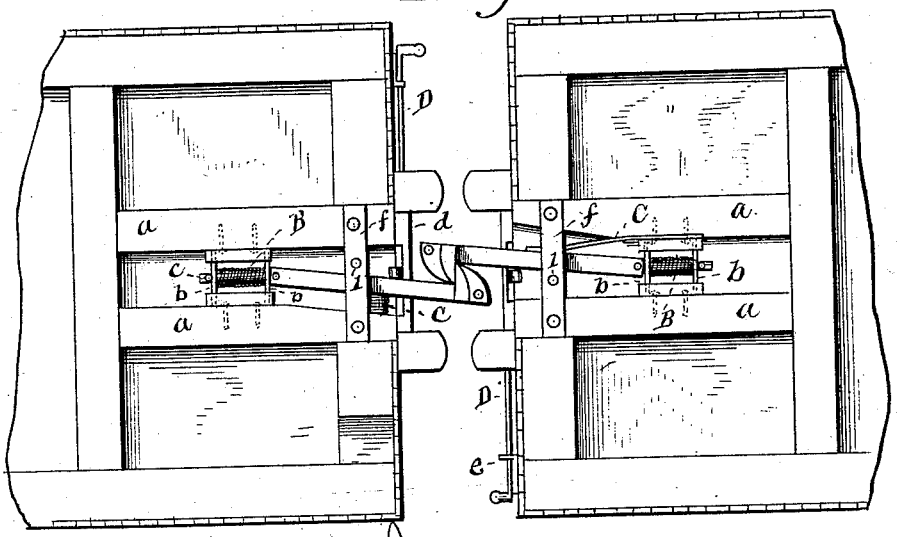


Fig. 2.

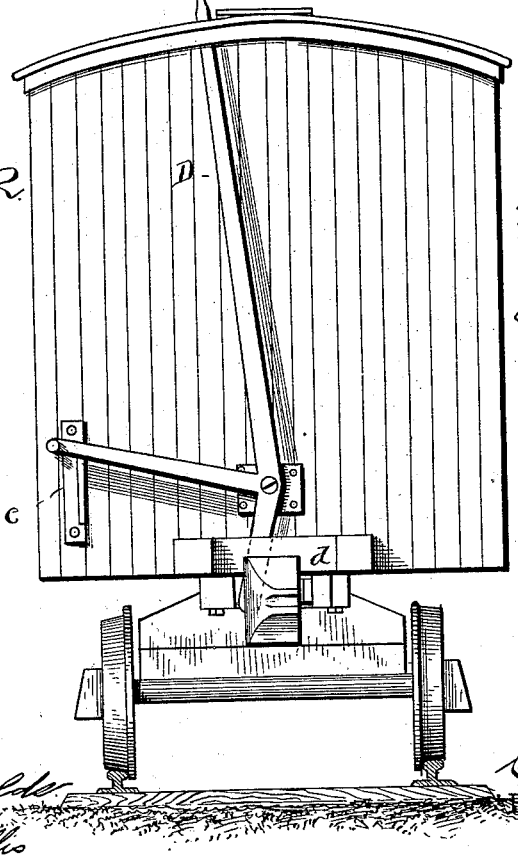
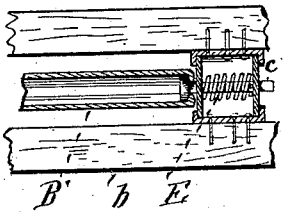


Fig. 3.



WITNESSES:

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CHARLES HANSGEN, OF ROCK ISLAND, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 302,482, dated July 22, 1884.

Application filed May 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HANSGEN, of Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to that class of inventions known as "car-couplers," and is intended as an improvement on Patent No. 293,325, granted jointly to myself and J. R. Coleman, February 12, 1884.

The invention consists in such details of construction and combinations of parts as will hereinafter be distinctly pointed out and claimed.

Referring to the accompanying drawings, Figure 1 represents a bottom plan view of two cars, partly broken off, in which is shown the coupling means constructed according to my present invention. Fig. 2 is an end elevation of a single car, showing the construction and arrangement of the double operating-levers; and Fig. 3 is a view in detail to more clearly show the construction of certain parts.

The construction and general arrangement of parts differ but slightly from those shown and described in the patent above referred to, such differences as do exist lying in the construction of the inner end of the draw-bar, and the connection and arrangement therewith of the buffer-spring and the construction of the operating-levers.

Reference being had to the parts by letter, A represents the car-body, having at its under side draw-timbers *a a*. Between these timbers are arranged strong metal plates *b b*, through the rear one of which works the pin or rod *c*, to which the inner end of the draw-bar is attached, while the forward one slides between guides *b' b'*, acting to compress the buffer-spring when two cars strike or come in contact. The rear end of the draw-bar has pivoted to it an end of the rod *c*, as shown, and in many instances I prefer to make the draw-bar hollow and provide the pin or rod *c* with a head, by which it will be retained therein by bearing against the end portion of said bar in the manner shown in Fig. 3. In this latter instance the rod *c* would work in the draw-bar on compression of the buffer-spring by the bar moving forward upon it. B represents the buffer-spring, B' the draw-bar, and C the spring that acts to restore the draw-bar when it has been drawn or pushed aside to couple or uncouple the cars. This spring I have shown on one car to be a coiled one, while on the other it is represented as being flat. Either will answer the purpose for which they are intended.

Pivoted to the end of the car is a double-arm lever, D, by which the draw-bars are operated. The longer branch of this lever extends upwardly and moves in a small guide-way prepared for it in the projecting edge of the roof, while the shorter branch extends outward toward the side, by which the operation can be effected from the ground as well as the roof of the car. The shortest branch of the lever is slightly sprung inward at the end, and when said lever is operated by either branch thereof the shortest one springs under the end of a catch or plate, *e*, secured to the car, and thus is the draw-bar maintained at the position to which it is drawn until this branch of the lever is released from its engagement with the plate. The lower end of said lever rests against the side of the draw-bar, and moves through a guide, *d*, secured to the end of the car, as shown.

f represents a strip of metal secured to the draw-timbers across the space between them, and having a pin, 1, passing through it into the bottom of the car, which prevents the draw-bar from going beyond a true line.

The operation is as follows: As the two draw-heads come in contact the draw-bars are forced aside laterally until the rounded faces of the heads have passed each other, when they are immediately forced back and coupled by the springs C. The buffer-spring is simultaneously compressed, and acts to yield to the force of the sudden impact, and prevents jar to the car-body.

Having thus described my invention, what I claim is—

The combination, in a car-coupler, of the

hollow draw-bar having head and capable of lateral movement, a pin or rod retained therein at its rearward end and adapted to move in said draw-bar, the movable plates *b b*, through which said pin is guided, the buffer-spring held on the pin between such plates, the spring C, for restoring the draw-bar to its position after being moved sidewise, the plate *f* and the pin 1, for preventing said bar from going beyond a true line, the double-arm lever having its shorter arm sprung inward at the end, and the catch-plate *e*, for engaging the said arm, substantially as and in the manner set forth and described.

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

CHARLES HANSGEN.

Witnesses:
SAMUEL F. COOKE,
AMOS K. NESBITT.