

Car Coupling.

Patented Mar. 20, 1860.



W Coombs
R S Spencer.

S Daggett Jr.
per Murray
Attorneys.

UNITED STATES PATENT OFFICE.

S. DAGGETT, JR., OF CHARLESTON, SOUTH CAROLINA.

CAR-COUPLING.

Specification of Letters Patent No. 27,531, dated March 20, 1860.

To all whom it may concern:

Be it known that I, S. DAGGETT, Jr., of Charleston, in the county of Charleston and State of South Carolina, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a front elevation of my invention, and Fig. 2 is a longitudinal vertical section of the same.

Similar letters in both views refer to corresponding parts.

This invention consists in arranging a hollow hinged chamber with a rolling weight and with a projecting arm or tongue in such relation to the coupling shell and to the pin which locks the connecting link, or shackle, that said shackle as it passes into the shell, by striking against the projecting arm or tongue, turns the hinged chamber, whereby the rolling weight is caused to change its position, from the rear end to the front of said chamber, and at the same time the locking pin is thrown up and made to pass through the shackle, and the weight in the front end of the hinged chamber prevents said pin from changing its position spontaneously, so that it retains the shackle perfectly secure, while by raising the front end of the hinged chamber, the shackle can be released at any moment.

To enable those skilled in the art to make and use my invention I will proceed to describe it with reference to the drawing.

A, represents a bell-shaped shell which is secured to the under side of the platform of a rail road car in the usual manner. It is perforated in a vertical direction with a hole *a*, to admit a pin B, which serves to retain the shackle or connecting link C. The pin B, is operated by means of a hinged hollow chamber D which is suspended from a pivot *b* that has its bearings on lugs or pendants *c*, which extend downward from the rear end of the shell A. Lugs *d*, extending from the hollow chamber D, serve as the bearings for the pivot *e*, to which the pin B, is secured,

and said pivot moves in a slot *f*, so as not to interfere with the rectilinear vertical motion of the pin. An arm E, is secured to the hollow chamber D, and this arm extends upward into the shell A, as clearly shown in Fig. 2. This arm forms the buffer.

The chamber D is suspended from the pivot *b*, in such a manner that its open end considerably overbalances the closed end, and in the chamber is a rolling weight F, which moves freely from one end of the chamber to the other. A pin G inserted in the open end of the chamber prevents its rolling out.

When the open end of the chamber is raised by means of a rope or chain attached to the pin *g*, the rolling weight takes its position at the closed end of the chamber, and the pin B is depressed as shown in Fig. 2, in black outlines. The coupling is now ready to receive the shackle from the adjoining car.

As the shackle is forced into the shell it strikes the buffer arm E, and the chamber D is turned down into a position shown in red outlines in Fig. 2. The weight F, now rolls to the open end of the chamber, and at the same time the pin B, is forced up and the shackle is secured in the shell.

By these means the coupling is made self-locking, and there is no probability that it will ever allow the shackle to disengage itself spontaneously, the pin B, being kept up by the overweight of the open end of the chamber D, which is still further increased by the rolling weight F. At the same time, whenever it is desired to uncouple the arms, it is only necessary to lift up the open end of the chamber D, by pulling the rope attached to the pin *g*. The pin B, is thereby withdrawn from the shell A, and the shackle is allowed to slip out. At the same time the weight F, rolls to the closed end of the chamber whereby this end of the chamber is nearly balanced with the other end and the pin B, together with the other parts are kept in the position shown in black outlines in Fig. 2, without causing much strain on the rope attached to the pin *g*.

The simplicity of this coupling is unsurpassed; it can be manufactured at a trifling expense, and its action is sure. It can easily

be managed, even by inexperienced hands and its parts are so constructed that they do not get out of order.

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

The arrangement of the hinged hollow chamber D, with the rolling weight F, and buffer arm E, in combination with the pin

B, and shell A, constructed and operating substantially as and for the purpose specified.

S. DAGGETT, JR.

Witnesses:

JOHN PRESTON, Jr.,

JAMES SIMONS, Jr.