(No Model.)

H. S. SANDERS.

CAR COUPLING.

No. 385,204. Patented June 26, 1888.

Fig. 1.

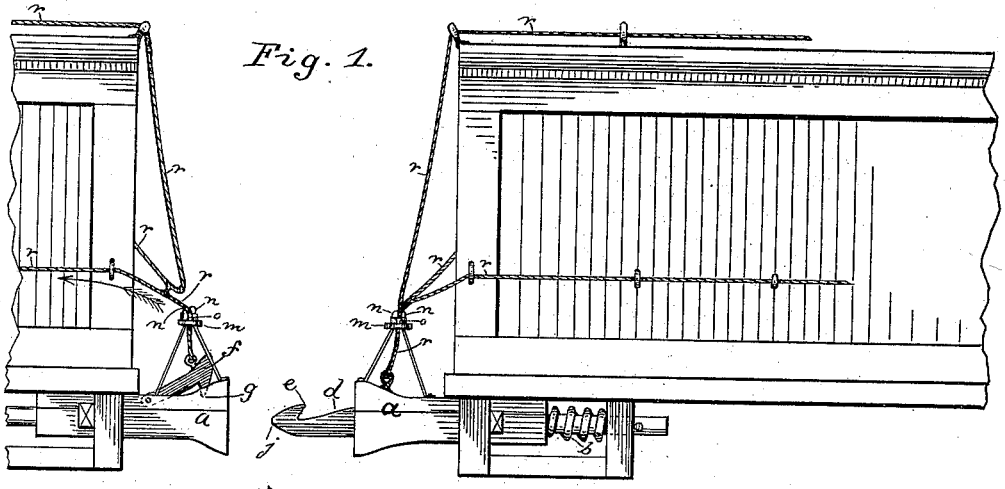


Fig. 2.

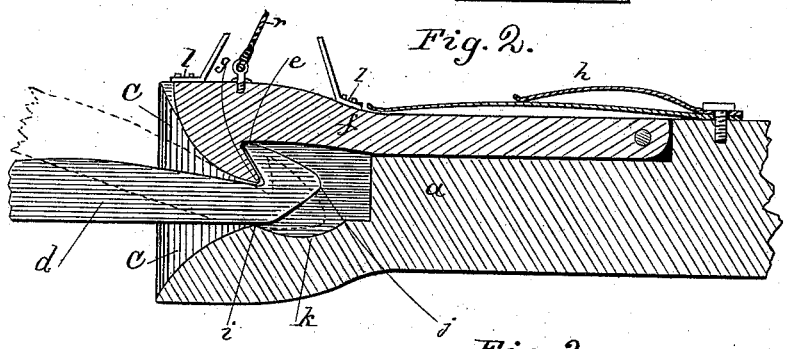
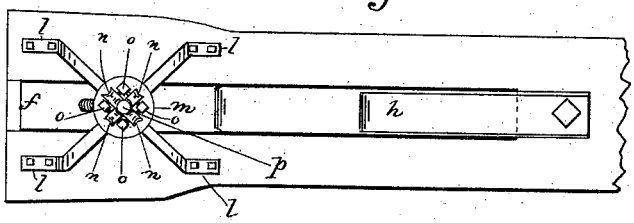


Fig. 3.



Witnesses:
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Wm. P. Grove.

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By his Attorney,
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UNITED STATES PATENT OFFICE.

HAMPTON S. SANDERS, OF MAGNOLIA, ARKANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,204, dated June 26, 1888.

Application filed February 6, 1888. Serial No. 263,110. (No model.)

To all whom it may concern:

Be it known that I, HAMPTON S. SANDERS, a citizen of the United States, residing at Magnolia, in the county of Columbia and State of Arkansas, have invented certain new and useful Improvements in Car-Couplers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to car-couplers; and it consists in the novel construction and arrangement of its parts.

In the accompanying drawings, Figure 1 is a side elevation of two coaches with my coupler in position. Fig. 2 is a longitudinal sectional view of one-half of my coupler and one-half of the coupling-pin. Fig. 3 is a top plan view of one of my bulk-heads and of the grooved friction-rollers and supports.

My invention is described as follows: The bulk-heads *a* are provided with a bumper-spring, *b*, or other equivalent contrivance for same purpose. The said bulk-heads are made in two parts, the upper and lower, to facilitate and simplify their manufacture, and their upper and lower parts are secured together by strong screws or bolts. The openings in each part of the bulk-head widen into open mouths *c*, so that the coupling-pin *d* will be guided into its socket, and thus hook onto a neighboring coach, whether it be higher or lower, and even if the two bulk-heads should not stand directly opposite each other by reason of the unevenness of the track. The upper face of the said coupling-pin is provided with notches slanting backward, creating at each end a spur, *e*, inclining forward, and in each of the upper parts of the said bulk-heads are pivoted dogs *f*, with spurs *g*, slanting backward, adapted to engage the said spurs of said coupling-pins, thus making it impossible for said pins to be withdrawn when once hooked until the said dogs are raised up out of the way. These dogs are held down by double springs *h*, secured to said bulk-heads by bolts or screws. The lower face of the openings in said bulk-heads have a raised point, *i*, immediately under the point of the spur *g* of the dogs *f*, and thus the said coupling-pins are, so to speak, pivoted between said points, and may turn a little to the right or left without grinding their points against the bottom of the said openings. The lower faces of the said coupling-pins are perfectly straight to a point beyond the said point *i*, when it is cut up and the upper face and sides tapered into a point, so that it will easily enter the mouths *c*. Immediately in rear of the raised point *i* is a depression, *k*, cut in the lower face of the said openings, so that when the coupler hooks onto a higher or lower coach the point *i* of the coupler will not grind against the bottom of the opening, but work and be impinged between the spur of the dog and the said point *i*. If the depression *k* were not made as stated, the points of the coupling-pin would press against the bottom of the opening when hooked to a higher car and press up the dog *f* and tend to unlock the two spurs. On the upper face the two bulk-heads are secured by four arms, *l*, the lower ends secured to the said bulk-heads and the upper ends to a friction-roller holder, *m*, which holds four grooved friction-rollers, *n*, pinioned in bearings *o*. These friction-rollers are so arranged that their edges come together, and the grooves form a single circular opening, *p*, for the passage of the rope *r*. In the back of the dog *f* is secured a ring-bolt, *g*, in which is secured a rope, *r*, which passes up through the opening *p* left between the friction-pulleys. The said rope, after it passes up through the said opening *p*, is divided into three parts, one part being carried over the top of the car, one on one side and one on the other side of the coach, so that a pull on either part will raise the dog and allow the coupling-pin to escape. The construction of the pulley-holder and the arrangements of the pulleys are such that no matter in what direction the rope is pulled it will run on one or more of the rollers and pull the dog straight up, the said holder and pulleys being immediately over the ring-bolt *g*.

It will be seen that the coupler can be uncoupled by pulling on the top or either of the side ropes. It couples itself.

Having thus described my invention, what

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

1. In a car coupler, as above described, the friction-pulley holder *m*, having the arms *l*, secured to the upper face of the bulk-heads *a*, grooved friction-rollers *n*, pinioned in bearings *o* on said holder, leaving the opening *p*, rope *r*, one end attached to the dog *g*, the other passing up through the opening *r*, then divided into three parts, substantially as shown and described, and for the purposes set forth.

2. A car-coupler consisting of the bulk-heads *a a*, having the dogs *f*, raised points *i*, and depressions *k*, coupling-pin *d*, having the spurs *o* and straight bottom beyond the raised points *i*, friction-roller holders *m*, supported by the arms *l*, grooved friction-rollers pinioned in bearings *o* on said friction-roller holder, and rope *r*, secured to dog *f* and passing between said friction-rollers, all substantially as shown and described, and for the purposes set forth.

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

HAMPTON S. SANDERS.

Witnesses:
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TOM D. WEAVER.