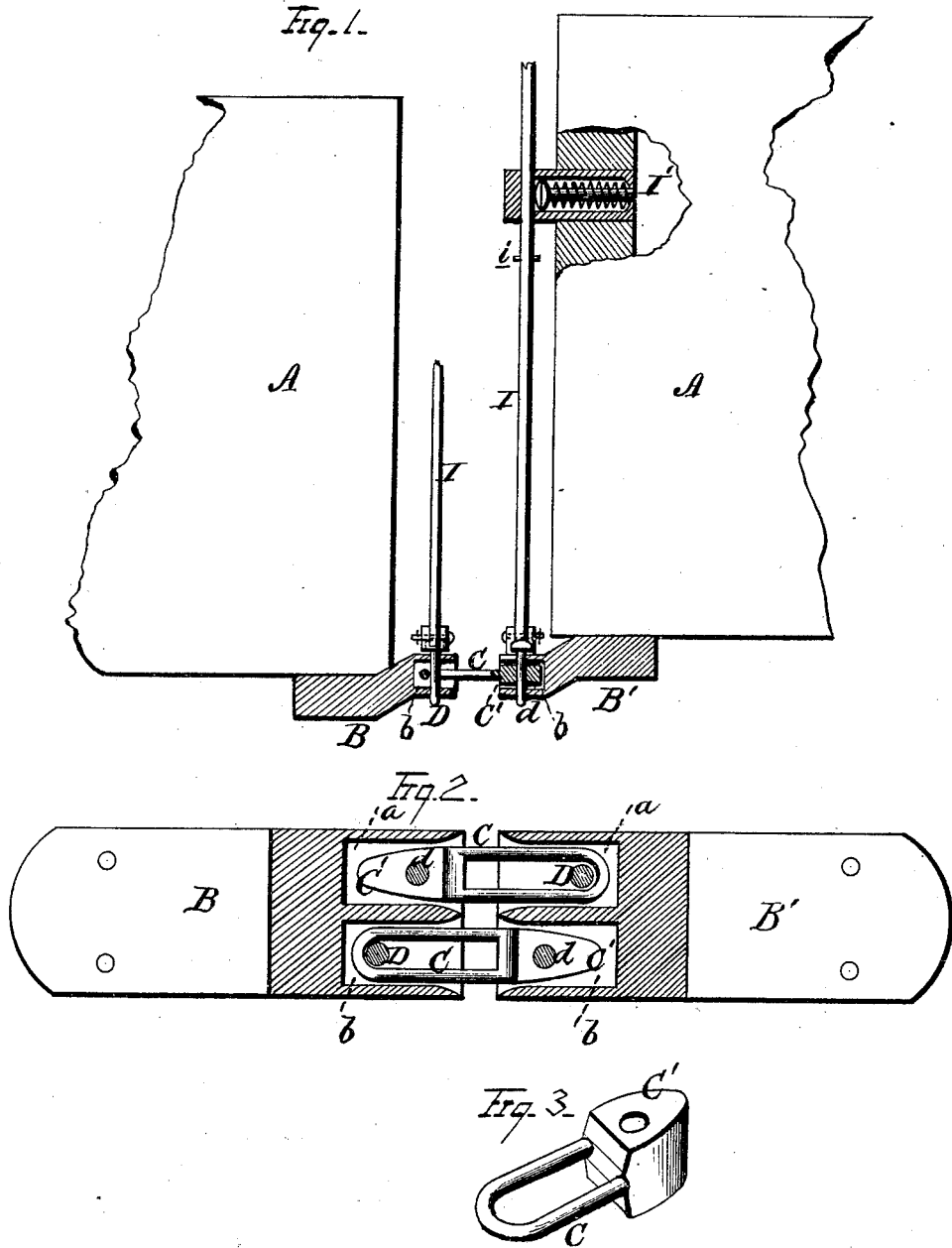


O. C. SMITH
Car-Coupling.

No. 168,423.

Patented Oct. 5, 1875.



WITNESSES
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UNITED STATES PATENT OFFICE.

OLIVER C. SMITH, OF ROSEMOND, ILLINOIS.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **168,423**, dated October 5, 1875; application filed July 1, 1875.

To all whom it may concern:

Be it known that I, OLIVER C. SMITH, of Rosemond, in the county of Christian and State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain new and useful improvements in car-couplings.

In the drawings, Figure 1 is a side elevation of a portion of adjoining cars with my coupling applied thereto; Fig. 2, a horizontal section of the coupling heads and links; Fig. 3, a detached view of one of the links.

My invention consists in a peculiarly-shaped (crooked or bent) coupling-head, so formed as to adapt them to be used either side up for use on a high or low car, to bring the two mouths of opposing coupling-heads in line with each other, the heads being constructed with two separate, independent, and distinct mouths placed side by side on a horizontal line; also, in a novel construction and arrangement of friction-locking device attached to the side of the car and operating against the coupling-pin rod to hold and secure the pin either in a locked or elevated position, all constructed and arranged as and for the purposes hereinafter more fully set forth and claimed.

A A are the cars, to the ends of which are secured the coupling-heads B B'. These heads are made, as shown, of the crooked or bent form, so that when it is permanently attached to a high car the mouth is turned down, as shown at B', and when permanently attached to a low car the mouth is turned up, as shown at B, so as to bring the mouths the same height from the rails of the road as when attached to a high car, thus making the coupling always on the same line, whether on high or low cars. Thus the mouths of the couplings are brought on a horizontal line with each other, whether the cars are high or low, and if the cars are both the same height the heads are placed the same on both, with either side up, as desired. Thus a coupling-head is provided that will accommodate itself to different-sized and variety

of cars. These heads B B' are constructed in their front portion, with two independent separate openings or mouths, *a b*, placed side by side on a horizontal line. C C are the coupling-links, constructed at one end with a perforated shank or enlarged head, C', of about the size of the opening or mouths *a b*, into which they snugly fit, with a lateral limited play therein. The heads of these links are placed one in one head and the other diagonally across in the other head, and secured by pins *d d*, which are intended to remain permanent. D D are the ordinary coupling-pins, passing through the links C C, placed one in each head, diagonally across from each other, opposite to the pins *d d*. These pins D D are connected to a rod or lever, I, extending up the end of the car, and the coupling operated thereby from the top of the car. I' is a spring friction-guide secured to the end of the car and impinging against the rod I, whereby said rod is held secure in position.

The object of constructing the coupling-links as shown, with the head or shank C', is, by this head the link is always held straight out in a horizontal line, so as to secure the proper entry of the link in the opposite head in the act of coupling, thus doing away with the practice of raising the link by hand to make it enter the head.

The object and advantages of thus constructing the coupling-heads with two mouths, and employing two independent links placed side by side in a horizontal line is, that a stronger coupling is secured, and in turning curves the coupling draws by the outside link and pin, and not from the center of the car, as in the single coupling, so that the outside wheel is not so liable to be pulled over or climb the track, and the friction of the flange of the wheel against the outside track is thus lessened.

Thus from the foregoing it will be seen that a simple, durable, and effective coupling is obtained, and one that accommodates itself to any desired car, and one that, to a great extent, lessens the danger to life and limb of operators.

To uncouple the cars the pins D D, one from each opposite head, are withdrawn, thus allowing the cars to separate, but leaving a link in each head on opposite sides of the heads.

To couple the cars they are simply brought together, the links being themselves held up, so that they enter the head, and are secured by dropping the pins down in place.

The friction-guide *I'* holds the rod *I* and coupling-pins always in place, whether elevated out of the heads or not, suitable stops *i* being provided on the rod to prevent its accidental entire removal. Thus the pins are secure and not liable to be lost, and also the trouble of entering them in their holes is avoided.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The bent coupling-heads *B B'*, having independent mouths *a b*, placed horizontally side by side, whereby the coupling may be used

either side up, and on a high or low car, to bring the mouths of opposing coupling-heads on the same line, all substantially as described.

2. The car-coupler composed of bent heads *B B'*, *a b*, shanked links *C C'*, and four pins, *D D d d*, all substantially as and for the purposes set forth.

3. In combination with the coupling-heads *B B'* and pins *D*, the rod *I*, provided with the stops *i* and friction-guide *I'*, as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 11th day of May, 1875.

OLIVER C. SMITH. [L. s.]

Witnesses:

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