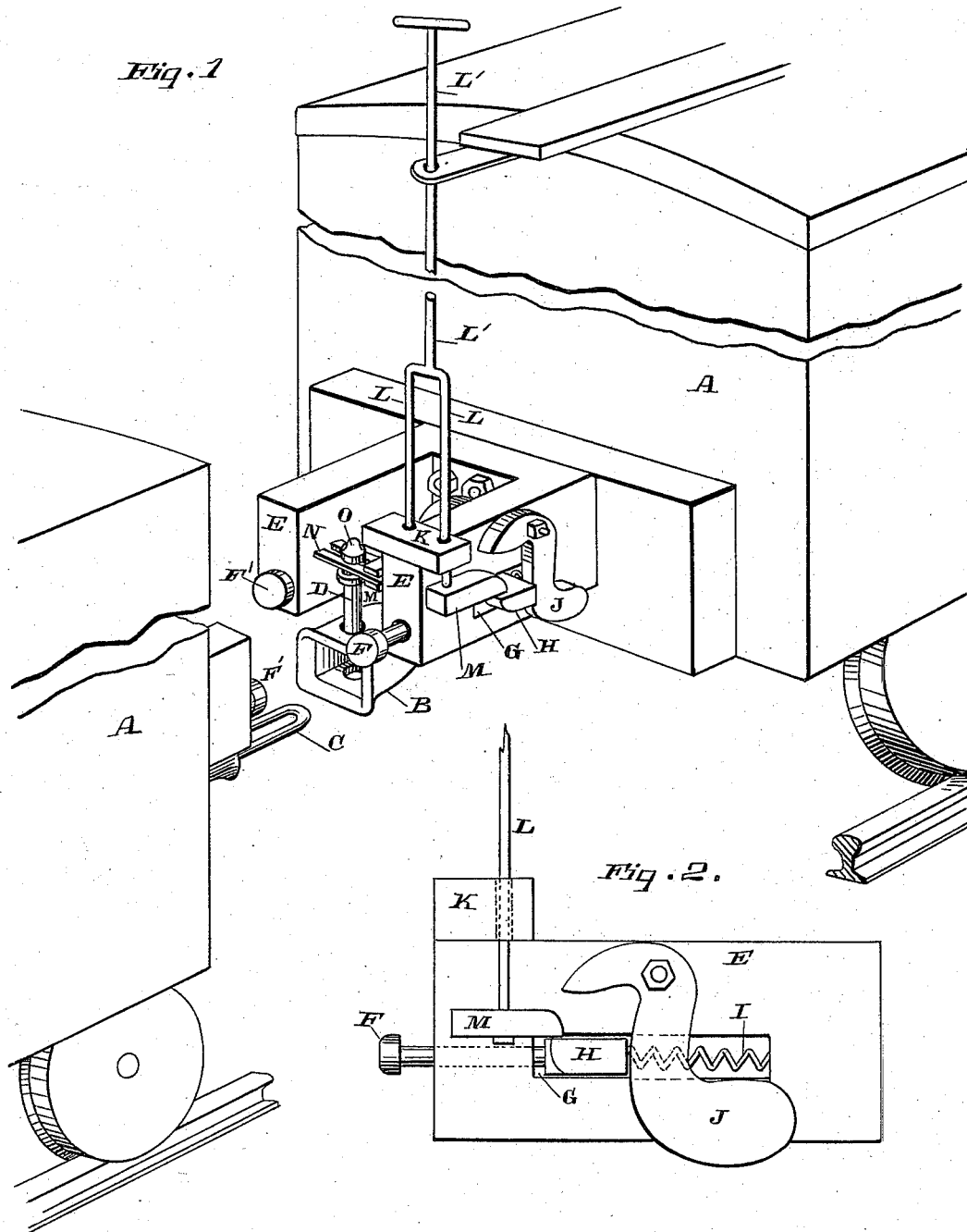


(No Model.)

W. M. CUTTER.
CAR COUPLING.

No. 385,101.

Patented June 26, 1888.



Witnesses,
Geo. B. Strong.
J. H. Morse.

Inventor
Wm M. Cutter,
By Devey & Co.
Attys

UNITED STATES PATENT OFFICE.

WILLIAM M. CUTTER, OF MARYSVILLE, CALIFORNIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,101, dated June 26, 1888.

Application filed April 2, 1888. Serial No. 269,339. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. CUTTER, of Marysville, Yuba county, State of California, have invented an Improvement in Car-Couplers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for automatically coupling cars; and it consists in the combination, with the car-bumper and draw-head, of a pin-holder and means for releasing the same at the instant when the cars come together, so as to allow the pin to drop into its proper position through the link of the car-coupler.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view showing the approaching ends of the two cars with my device attached to one of them. Fig. 2 is a side elevation of the device.

A represents the car, having a draw-head, B, with the usual slot or opening to admit the link C, by which it is connected with the next adjacent car, and D is the pin which passes through the draw-head, and this link serves to couple the two cars together.

E E are the timbers of the bumpers, so called, and F F' are the bumpers, which receive the shock of the meeting cars. The bumper F' may be permanently fixed to its timber. The bumper F has a shank extending rearwardly through the timber and into a transverse slot, G, where it is secured to the bar H, which fits into and slides in the slot, being forced to the front end of the slot by a spring, I, and this forces the shaft and the bumper-head F outward, so as to be considerably in advance of the head F'. In addition to the spring I, the weights J are so fulcrumed to the timbers E that these weights will press against the rear edges of the transverse sliding bar H and act in conjunction with the spring to hold it forward. Upon the top of the timbers E is a guide, K, through which passes a vertical rod or rods, L. To the lower ends of these rods are fixed blocks M, one upon the outside and one upon the inside of the bumper-timber E. The inner block M is slotted horizontally, and the open or slotted pin-holding link N is loosely swiveled in this block. The head of the pin D is made with a

neck slightly smaller than the part O of the head, and this neck fits into the slot in the pin-holder N. The head rests upon the top of the pin-holder because it is not small enough to fall through the slot, and the swiveling link N allows the pin to move and adjust itself to the movements of the draw-head. The lower front edge of the transverse bar H and the upper rear ends of the blocks M are beveled to such an angle that when the blocks M are raised by the drawing upward of the rods L the inclined faces meeting will cause the bar H to move backward, temporarily pressing the spring I and swinging the counter-weights J back until the blocks M have been raised above the upper surface of the bar H, when the spring and counter-weights acting will force the bar H forward beneath the ends of the blocks M, which will thus be held up, and with them the pin D will be held with its point in the hole in the draw-head, but sufficiently high to allow the link from the approaching car to enter the draw-head beneath the pin. As pressure is brought upon the bumper F, it is forced backward, carrying with it the transverse bar H, until the whole has passed beyond the rear edges of the blocks M, and the blocks, with the pin-holder N and the pin D, are allowed to drop by gravitation, so as to carry the pin through the link into the draw-head, and the coupling is thus complete.

In platform-cars the rods L are easily reached, so as to raise the pin-holder; but in case of box-cars these rods are connected with the single rod L, which extends upwardly to the top of the car with a suitable handle, so that it is within easy reach of the brakemen without their going between the cars and endangering themselves.

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

1. The backwardly-sliding bumper and the transverse bar connected therewith, a spring or counter-weight by which said bar is forced to the front, in combination with the vertically-moving blocks and the pin-holding link connected therewith, said blocks being supported by a transverse bar, so as to hold the pin above the slot of the draw-head, and released by the impact of the bumper, substantially as herein described.

2. The backwardly-moving bumper, the transverse bar connected with and carried thereby, and the spring and counter-weights by which it is held to the front, in combination with the blocks holding the link, having their rear ends beveled or inclined to correspond with the beveled or inclined front edge of the transverse bar, so that the blocks may force the bar backward and pass it when rising and be held up by it after they are raised, substantially as herein described.

3. The horizontally-sliding bumper and transverse bar, the spring or counter-weights

by which the bar is held to the front, in combination with the vertically-moving lifting-rod, the block secured to its lower end, and the pin-holding link projecting from the inner block and swiveled so as to turn loosely in a horizontal plane, substantially as described.

In witness whereof I have hereunto set my hand.

WILLIAM M. CUTTER.

Witnesses:

M. MORRISON,
D. S. TIBBETTS.