J. B. STAMOUR.

Car-Coupling Links.

No. 157,035. Patented Nov. 17, 1874.

Fig. 1.

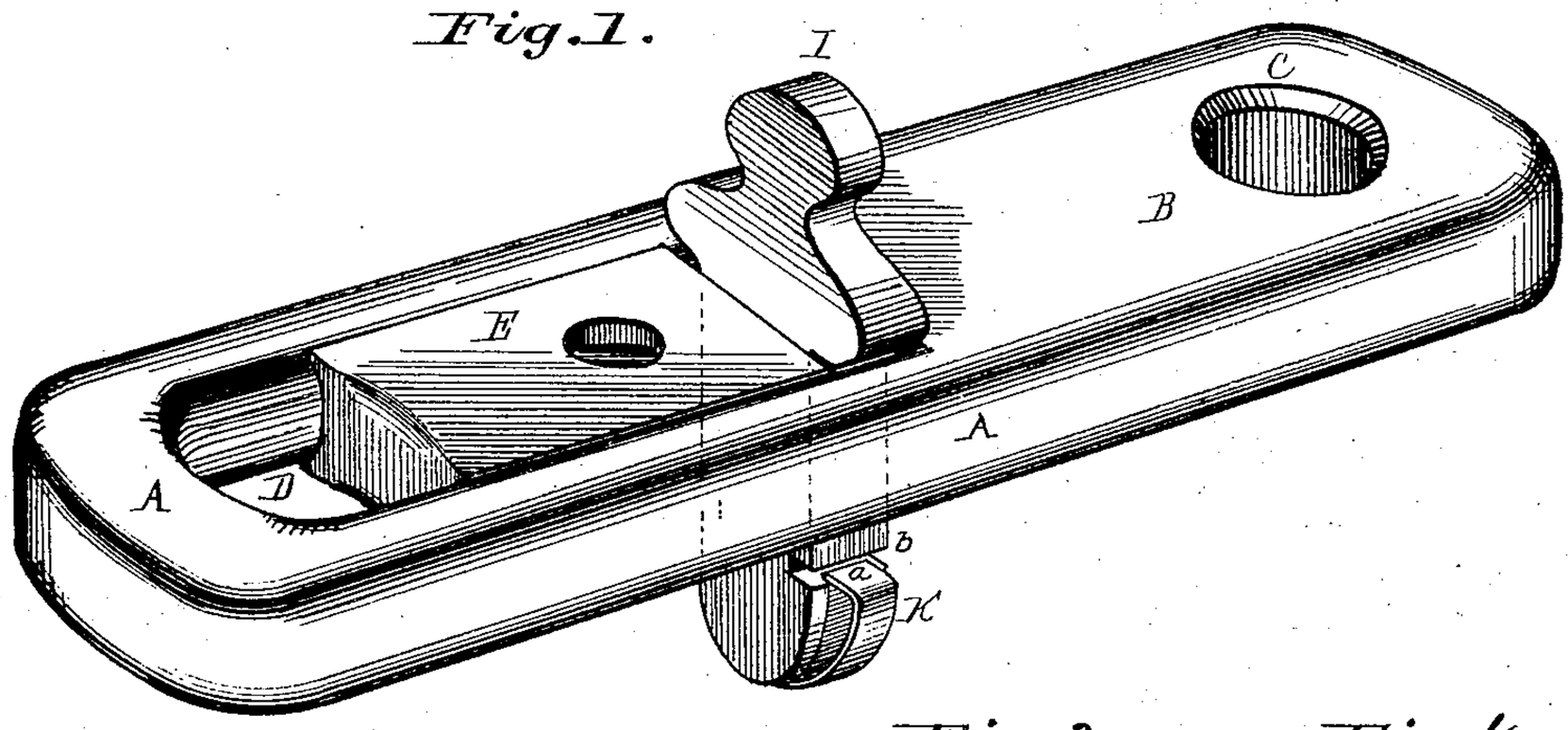


Fig. 2.

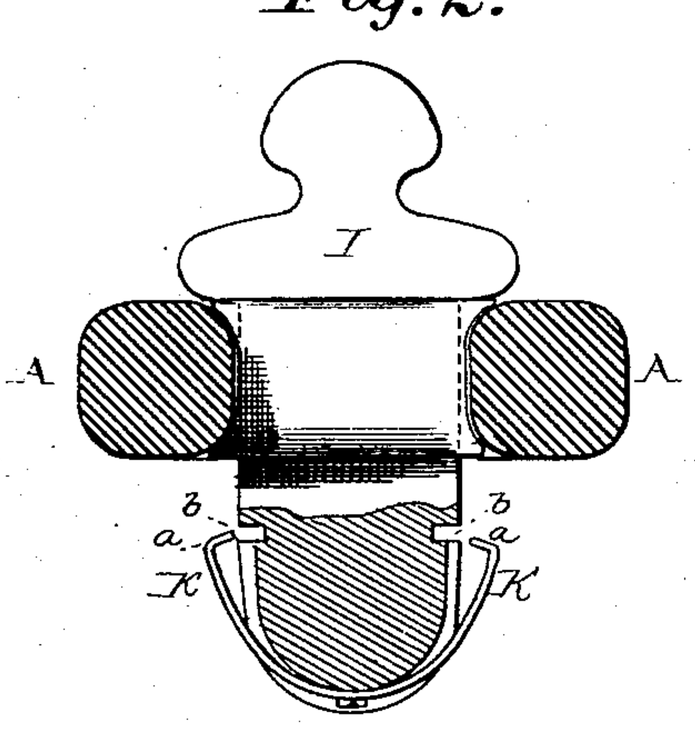


Fig. 3.

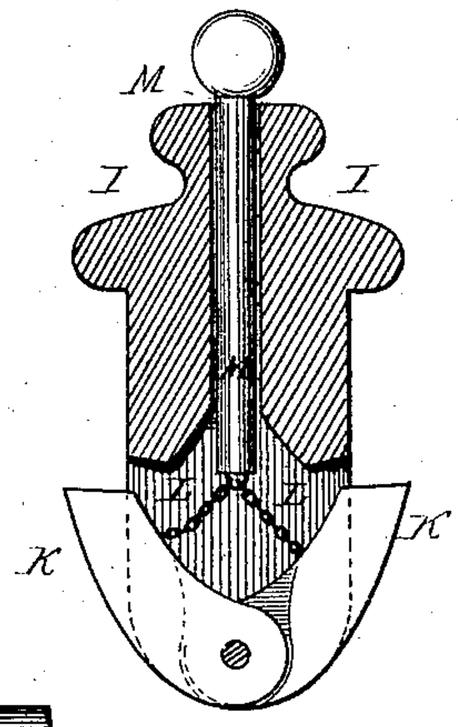
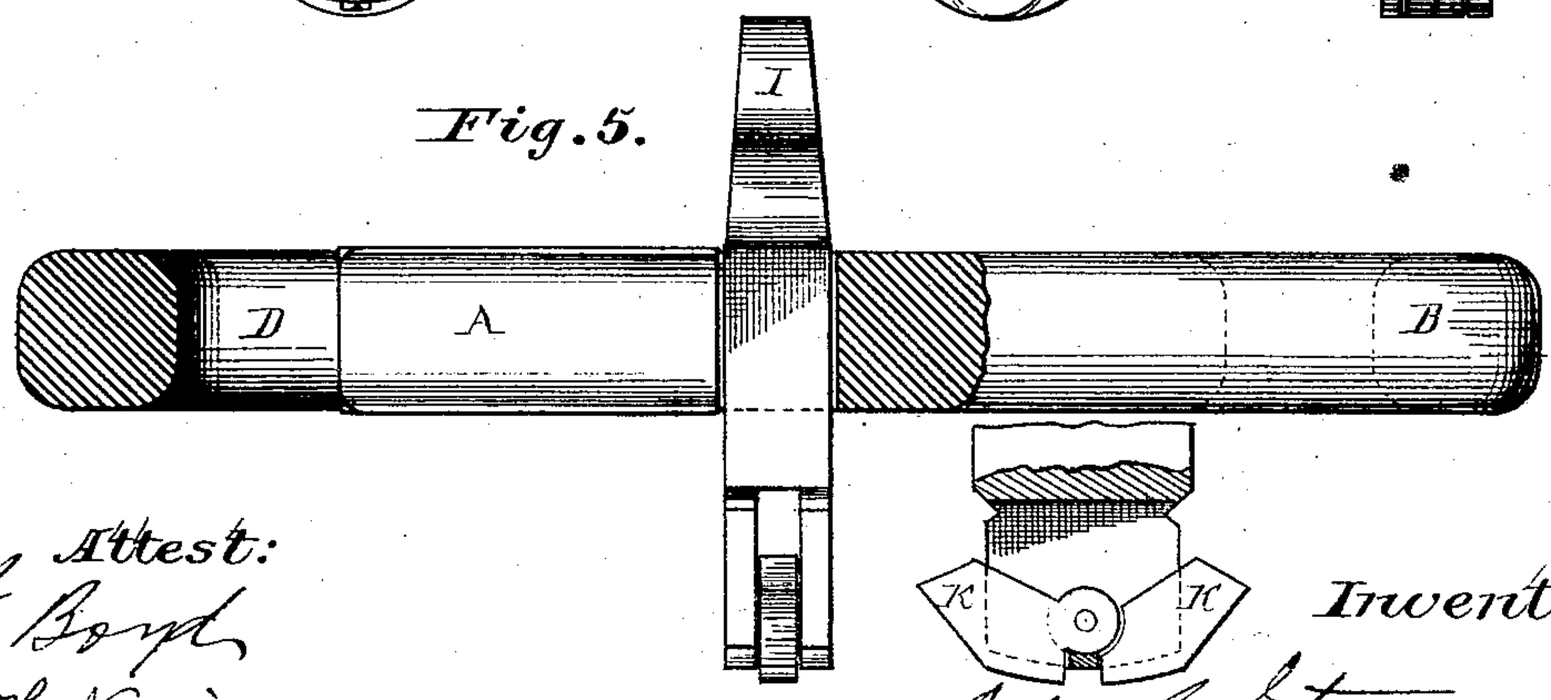


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN B. STAMOUR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO JOSEPH BILBROUGH, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPLING LINKS.

Specification forming part of Letters Patent No. **157,035**, dated November 17, 1874; application filed November 7, 1874.

To all whom it may concern:

Be it known that I, JOHN B. STAMOUR, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Coupling Links, of which the following is a specification:

This invention relates to certain improvements in links for coupling cars, designed to render the same more perfect and desirable in use than others heretofore constructed. The invention consists in the provision of a sliding block, which is fitted in the elongated slot or opening of a car-coupling link, and is of such a size or length that after the coupling-pin has been passed through the link, it can be pushed forward, so as to come in contact with the pin for diminishing the size of the pin-opening, and rendering it impossible for the link to move longitudinally, a locking key or wedge being inserted in rear of the sliding block, so as to retain the same in a stationary position after it has been properly adjusted in respect to the pin, the construction and arrangement being such that the coupling-pin is secured firmly and rigidly in position in its seat, and prevented from all play back and forth or laterally within the link, the result being that all jerking motion is avoided and a close and rigid connection secured, whereby all lost motion is taken up and prevented—results not accomplished before my invention. The invention further consists in providing the key employed for holding the sliding block in contact with the pin with one or two locking-dogs, which are arranged at the lower end of the key, so as to be projected in an outward direction therefrom after its insertion into the link, for preventing the displacement or removal of the key unless the dogs are first pushed into seats in the key.

In the accompanying drawing, Figure 1 is a perspective view of a car-coupling link having my improved attachments. Fig. 2 is a transverse section of a link, showing in position a block locking-key having spring-dogs. Fig. 3 is a vertical section of a locking-key having a pair of pivoted dogs and operating pin and chains. Fig. 4 is an edge view of the same. Fig. 5 is a longitudinal view of a coupling-link, partly in section, with the sliding block and key, having gravitating-dogs, in position.

In the present instance I have represented a coupling-link, A, having a solid end portion, B, with a cylindrical opening, C, in the same, for the passage of the coupling-pin which secures the link to the draw-head of one car. The opposite end of the link is made open or provided with the elongated slot D, common to coupling-links. Instead of leaving space in the rear of the coupling-pin, as in ordinary links, which permits a longitudinal movement of the link to a great extent, I propose to place in this heretofore unoccupied space a sliding or movable block, E, which is drawn to the rear of the slot D preparatory to the coupling operation, so as to facilitate the passage of the pin through the link. After the coupling operation, which is effected in the usual manner, the sliding block is pushed forward, so as to cause its forward end to be in contact with or in close proximity to the coupling-pin. The sliding block is provided with a concave front end, so as to form an oblong or nearly circular opening in connection with the inner portion of the coupling-link. This will cause the coupling-pin to be disposed in an opening of its own of a comparatively small size, thus rendering a longitudinal movement of the link impossible. The sliding block is held forward against the pin by means of a key or wedge, I, which is inserted in the rear of the same after the completion of the coupling operation. Said key occupies the space which is left between the rear of the block and the rear end of the slot D, and it is retained in position, or prevented from being displaced vertically, by means of locking or stop dogs K at its lower end, which come in contact with the bottom of the link when the key is raised. Said dogs K may be in the form of a spring bow or plate, as shown in Figs. 1 and 2, or pivoted dogs may be employed, as shown in Figs. 3, 4, and 5. The spring-bow is first pressed in an inward direction, so as to cause its prongs *a* to enter recesses *b* in the key, and then the same can be passed through the link-opening, the spring-

arms being forced outward so soon as the pressure of the lateral walls of the link-opening is removed, which will prevent the vertical displacement of the key. The pair of dogs K (shown in Figs. 3 and 4) are pivoted in a recess or chamber in the bottom of the key, and they are connected, by means of chains L, with a stem or rod, M, moving in a vertical bore formed in the key. By raising said stem the dogs are drawn into their recess, so as to enable the key to be inserted or withdrawn; at other times the dogs are held in a projected position by their own weight and that of the operating-stem. The dogs shown in Fig. 5 are hung upon the same pivot, and operate in the manner of a rule-joint, being thrown outward by their own weight, and pushed into the recess in the key by the hand of the operator.

The sliding block heretofore described is designed to be a permanent fixture, and it is guided and held properly by making its side edges concave, so as to embrace the rounded or convex inner sides of the link. The block is first inserted into the link-opening, and it is then secured against any possible vertical movement by shrinking it in place, or by hammering down its top and bottom edges upon the side bars of the link. The form of weighted link represented in the present instance is more efficient than others, as it is held in a horizontal position in the draw-head; but links having two elongated pin-openings, or one at each end, may have my attachments applied thereto with equal effect.

What I claim is—

1. In combination with a coupling-link having a sliding block located in its pin-opening, a locking key or wedge inserted in rear of said lock for the purpose of locking said block in position, substantially as specified.

2. The locking-key provided with movable dogs or stops at its lower end, combined with a coupling-link having a sliding block in its pin-opening, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand.

JOHN B. STAMOUR.

Witnesses:

JAMES L. NORRIS,

A. H. NORRIS.