

JOSEPH D. RIGGS.

Improvement in Car Couplings.

No. 123,510.

Patented Feb. 6, 1872.

Fig. 1.

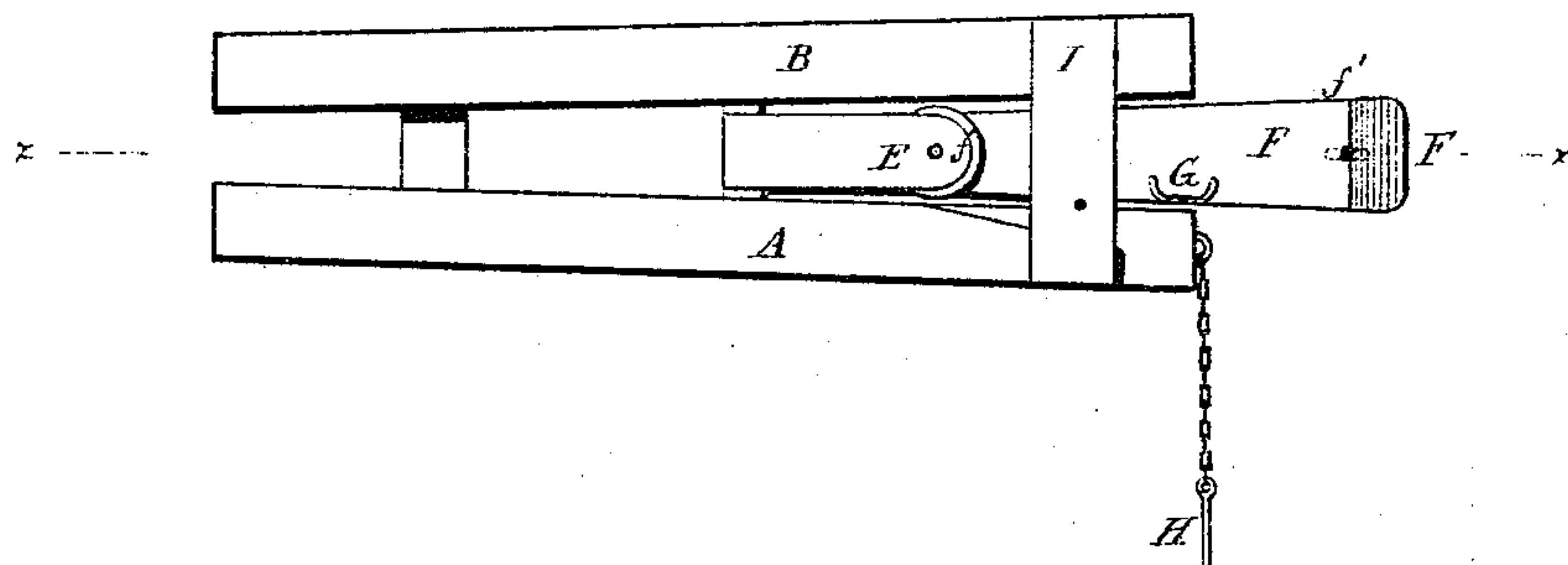


Fig. 2.

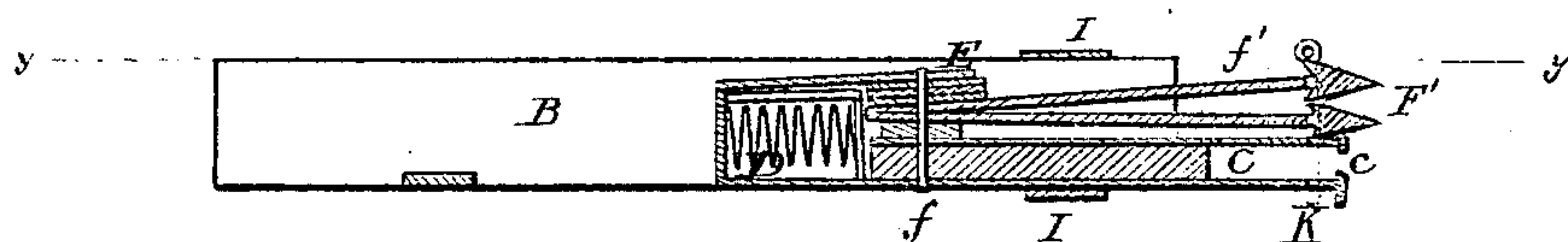


Fig. 3.

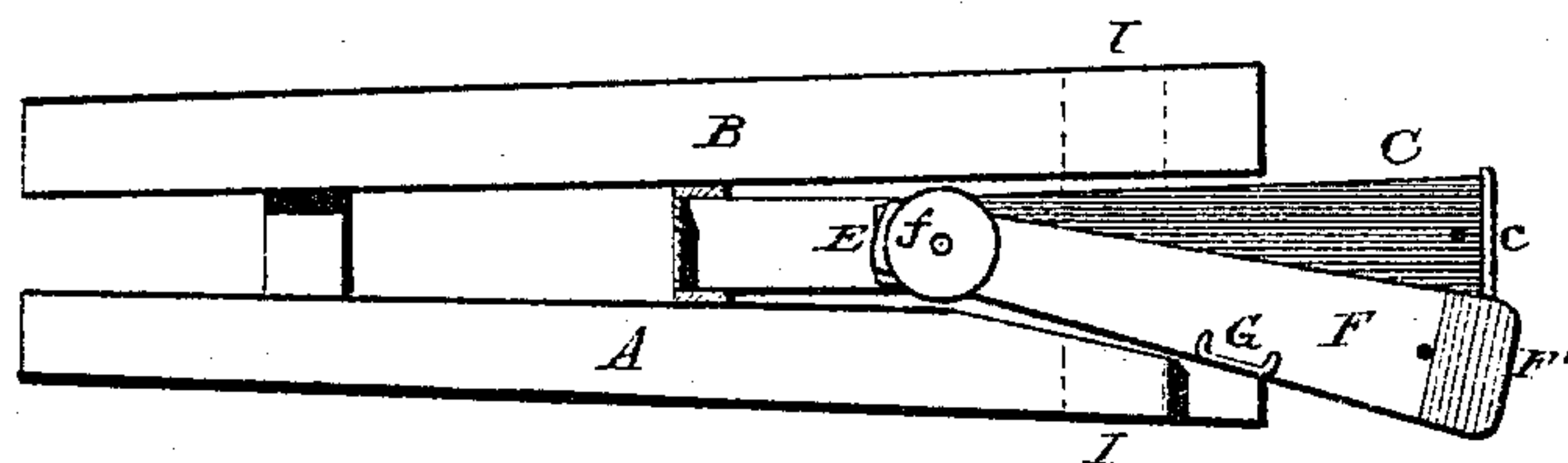


Fig. 4.

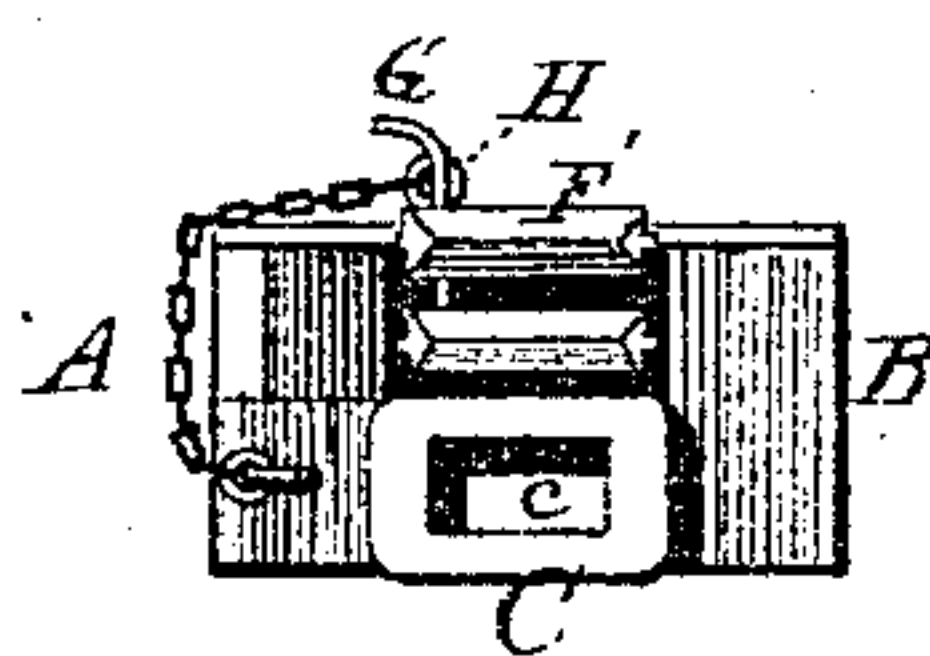
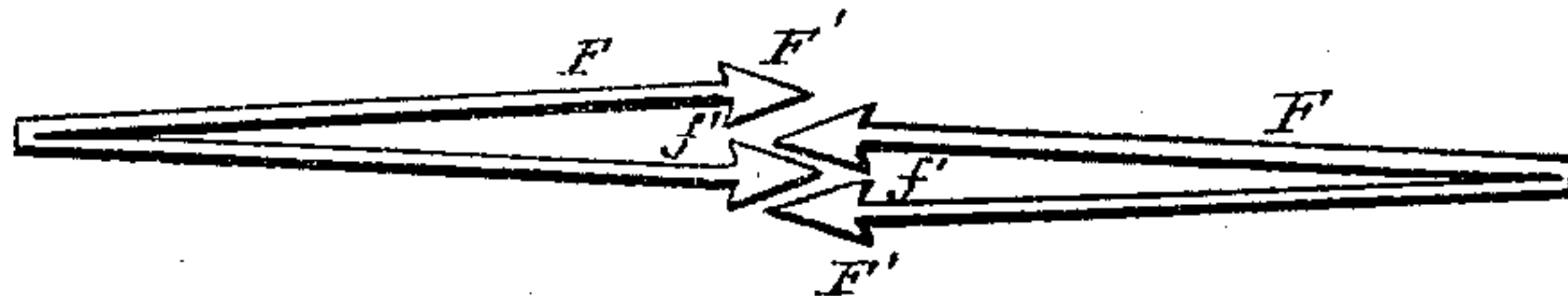


Fig. 5.



Witnesses.

Chas. H. Poole.
John B. Young

Inventor.

Jos. D. Riggs by
Prindle & Byer, his
Attys

UNITED STATES PATENT OFFICE.

JOSEPH DAVIS RIGGS, OF BUCKLEY, ILLINOIS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 123,510, dated February 6, 1872.

To all whom it may concern:

Be it known that I, JOSEPH D. RIGGS, of Buckley, in the county of Iroquois and in the State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of the upper side of my device; Fig. 2 is a vertical central section of the same on the line *x x* of Fig. 1; Fig. 3 is a horizontal section on the line *y y* of Fig. 2, showing the coupling-bars in position for disengaging from the opposite bars; Fig. 4 is a front elevation of the device with the coupling-bars in position for engagement; and Fig. 5 is a side elevation of two pairs of coupling-bars in position for engagement.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement in a class of car-couplings which are self-connecting; and it consists principally in the peculiar construction and relative arrangement of the various portions of the device, substantially as and for the purpose hereinafter specified. It consists further in the attachment of the coupling-bars to or upon the draw-bar, so as to permit of the lateral movement of their front ends, substantially as and for the purpose hereinafter shown.

In the annexed drawing, A and B represent two frame-bars, connected together by any suitable means, and having placed between and connected therewith a draw-bar, C, provided with an open head, *c*, for the reception of an ordinary link, all of usual construction and arrangement. Extending forward from the rear end of the draw-bar C to a point in advance of the spring-box D is a plate, E, between which and the upper side of said bar are placed the rear ends of two coupling-bars, F, which ends are secured in position by means of a pin, *f*, that passes downward through said plate E, the ends of said bars F, and the draw-bar C, and forms a pivotal bearing upon which said coupling-bars move horizontally. The coupling-bars F extend forward and increase slightly in width toward their outer ends, at which point each is provided with a spear-shaped head, F', pointed at the end, and from thence

extending rearward in diverging lines and ending in a right angled or hooked shoulder, *f'*, upon each side of the bar. A small metal rod, G, bent in the form of a staple, passing downward through openings in the upper coupling-bar, has its ends rigidly attached to the lower bar, and furnishes a guide which, while allowing free vertical motion to the upper bar, maintains at all times the relative lateral positions of the same and the lower coupling-bar. The inner face of one of the frame-bars A being cut away so as to permit the coupling-bars to swing laterally, as shown in Fig. 3, and a pin, H, passing vertically down through the connecting-plates I, provided for locking said bars in position, as seen in Figs. 1 and 4, the device is complete, and operates as follows:

The coupling-bars are so adjusted as to cause those upon one end of a car to be slightly higher than the bars upon the opposite end of said car, so that when said bars are placed in a line with the draft and two cars moved together their coupling-bars shall break joints, as seen in Fig. 5, and the heads of each pair forcing the opposite pair apart, shall pass beyond the same and have their locking shoulders engaged. As now the independent lateral movement of the coupling-bars is prevented by the pins H they cannot become disconnected, as their weight will cause the shoulders to remain in engagement; but as an additional precaution an ordinary coupling-pin, K, may, if desired, be passed downward through suitable openings *k* formed within the head of each coupling-bar. To uncouple the bars, the pins H (and K, if inserted,) are removed, and each pair of bars turned laterally outward so as to remove their heads from engagement.

In constructing the coupling-bars each pair may, if desired, be formed from one piece of metal, and connected together at their inner ends, as seen in Fig. 5.

Although, for convenience of coupling to cars to which my device is not applied, an ordinary draw-bar, C, is shown, it will be seen that the latter forms no part of my invention, and consequently may be employed or omitted, as convenience demands.

The especial advantages possessed by this device are, that its use entirely obviates all necessity for personal supervision or manipu-

lation during the operation of coupling, while, from the peculiar construction of the engaging portions, entire freedom of motion is left to each car, and no liability exists of their becoming accidentally disconnected while the couplings are unbroken or the cars are upon the track.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. The construction and relative arrangement of the frame-bars A and B, the draw-head C, and coupling-bars F, provided with the barbed ends F', and having a relative vertical movement and a combined horizontal

movement, substantially as and for the purpose specified.

2. Also the coupling-bars F, constructed as shown, and so pivoted upon the frame as to be capable of disengagement by means of a lateral motion, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of December, 1871.

JOSEPH DAVIS RIGGS.

Witnesses:

JOEL G. MCCLAVE,
JOHN A. KOPLIN.