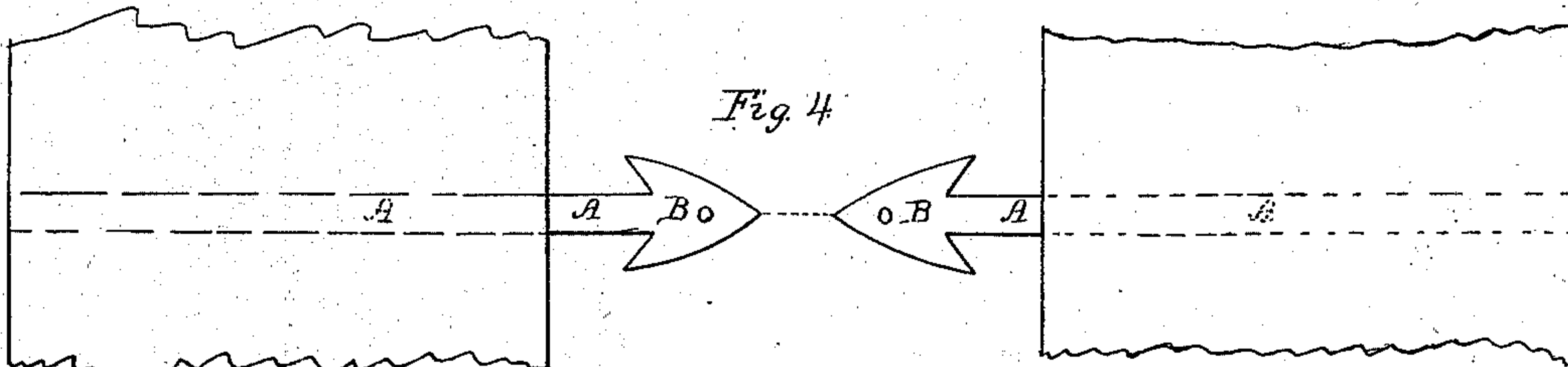
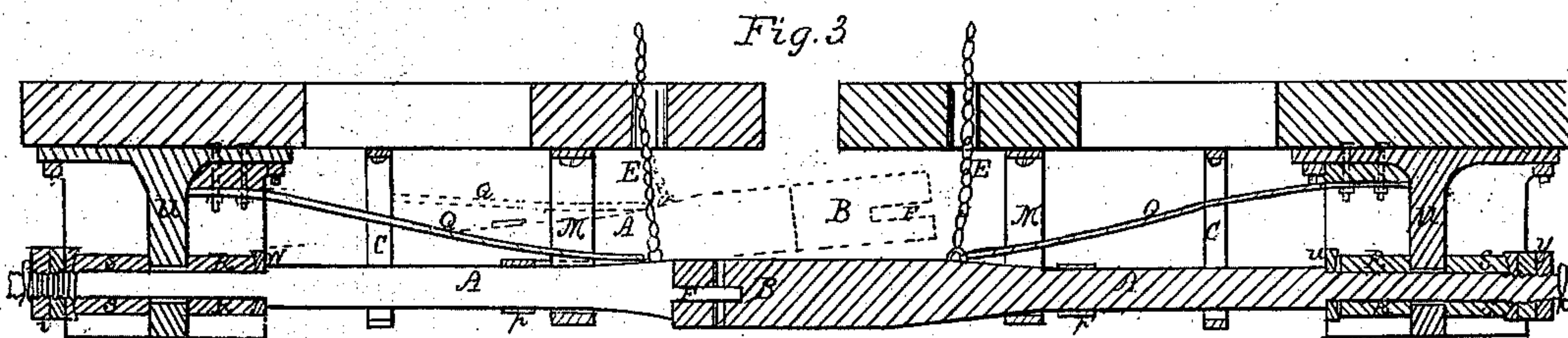
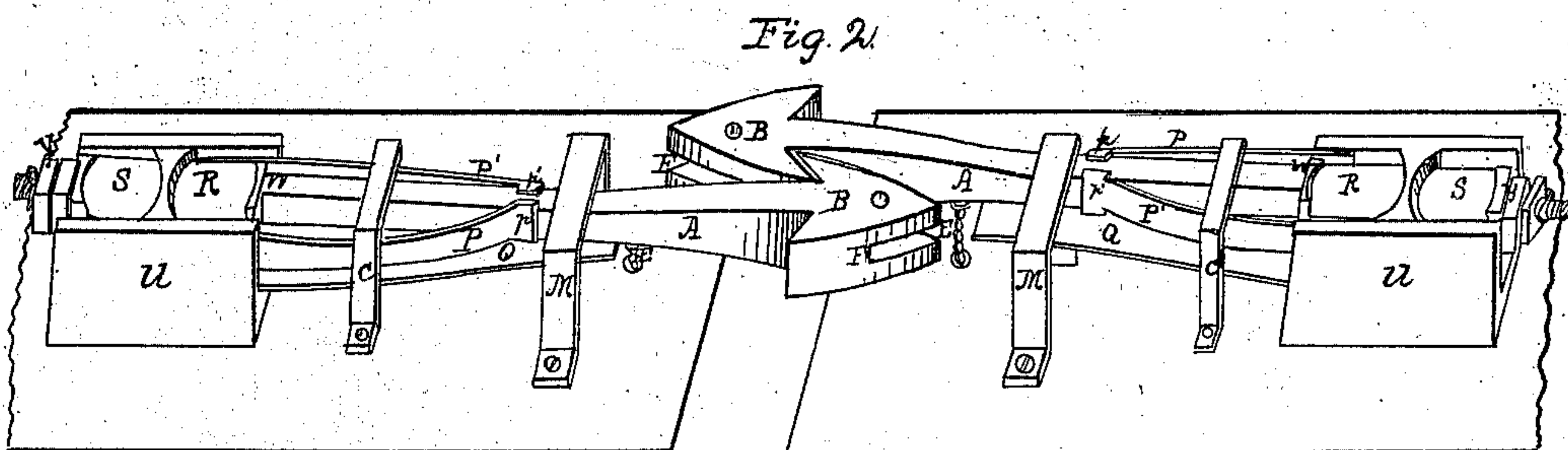
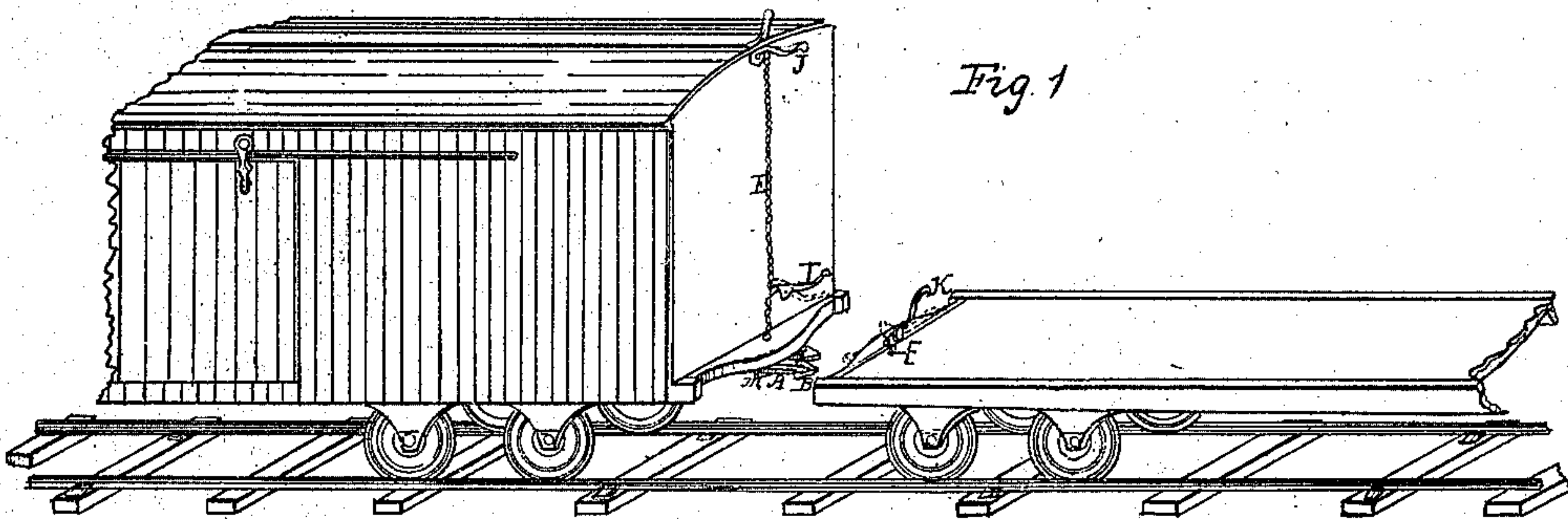


S. P. CARLL & A. SHUTE.
CAR COUPLING.

No. 104,704.

Patented June 28, 1870.



Witnesses
A. L. Study
J. M. Washburn.

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United States Patent Office.

SAMUEL P. CARLL AND AMOS SHUTE, OF RICHMOND, INDIANA.

Letters Patent No. 104,704, dated June 28, 1870.

IMPROVEMENT IN CAR-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, SAMUEL P. CARLL and AMOS SHUTE, of Richmond, in the county of Wayne and State of Indiana, have invented an Improved Car-Coupling, of which the following is a specification.

The first part of our invention relates to the manner in which the uncoupling is effected, and consists in such a construction and arrangement of parts as will allow the clutches to be disengaged by moving one of the bars in a direction at right angles to the plane of said clutches.

The second part of our invention relates to the mechanism for elevating one of the coupling-bars in the process of uncoupling.

The third part of our invention relates to the use of a spring that holds the coupling-bar down to its place, but which will yield, and allow said bar to be elevated for the purpose of uncoupling the cars; said spring being so adjusted as to act at right angles to the plane of the clutches, in the manner described.

Description of Drawing.

Figure 1 is a perspective view of portions of two cars with our improved coupling attached.

Figure 2 is a perspective view, showing the under side of the coupling.

Figure 3 is a vertical section through the coupling, the position of the bars when uncoupled being indicated in dotted lines.

Figure 4 is a plan view of portions of two coupling-bars, arranged in line as they are presented to each other when the two cars are being brought together.

The same letters refer to like parts in the different figures.

The coupling-bar A is of wrought iron, and is provided with a barbed draw-head, B, the point of which is arranged on a line with the centers of the car-axes, and a short distance below the platform or bumpers, in which position it is held by the stirrup M and springs P P' Q.

The rear end of the coupling-bar passes through an opening in the cast-iron bracket u, that is suitably attached to the car-frame.

A rubber or metal spring surrounds the bar A on either side of the bracket u, for the purpose of breaking the force of any concussion in the one direction, or sudden jerk in the other. These springs are represented at R and S, the forward one being held in position by the washer w, and the rear one by the washer nuts and key, represented at y.

The stirrup C acts as a bearing for the springs P P', and serves to increase their tension.

The springs P P' Q consist of flat bars of steel, and are secured to the bracket u, the springs P P' being provided with clips p p', that prevent them from slipping off the coupling-bar, while the spring Q is broad at its outer end, upon which the coupling-bar is free to move within the limits of the stirrup M.

Spiral springs may be substituted for all or either of the springs above mentioned; the difference in adjustment being easily made.

The chain E is attached to the coupling-bar A, and, passing up through the platform, is attached to a suitable lever or levers, by means of which the coupling bar is raised and the clutches disengaged. When this is done, the springs P P' throw the bars into line, one directly above the other, when they will not engage, and the cars may be separated at any time; but, immediately upon their separation, the bar is thrown down by the force of the spring Q, in addition to its own weight, when it is again ready for coupling.

As will readily be seen, this coupling may be attached with the plane of the clutches in a vertical instead of a horizontal position, when the clutches will be disengaged by withdrawing one of the bars horizontally.

The levers I J K are differently arranged to suit their positions, and the kind of cars to which they are attached.

A slot, F, is provided in the draw-head B for convenience in coupling with cars having the usual link attachments, a suitable vertical hole being made through the head for the coupling-pin.

Having thus fully described our said invention,

We claim—

1. The coupling-bar B B, provided with barbed heads, and constructed and arranged to couple by lateral and be uncoupled by vertical movement, as set forth.

2. In combination with the above, the chain E and levers I J, &c., when arranged so as to operate as set forth.

3. The spring O, in combination with the stirrup M, springs P and P', and coupling-bar A, when the several parts are constructed and arranged substantially as described.

SAMUEL P. CARLL.
AMOS SHUTE.

Witnesses:

WM. E. BELL,
JOHN CALVERT.