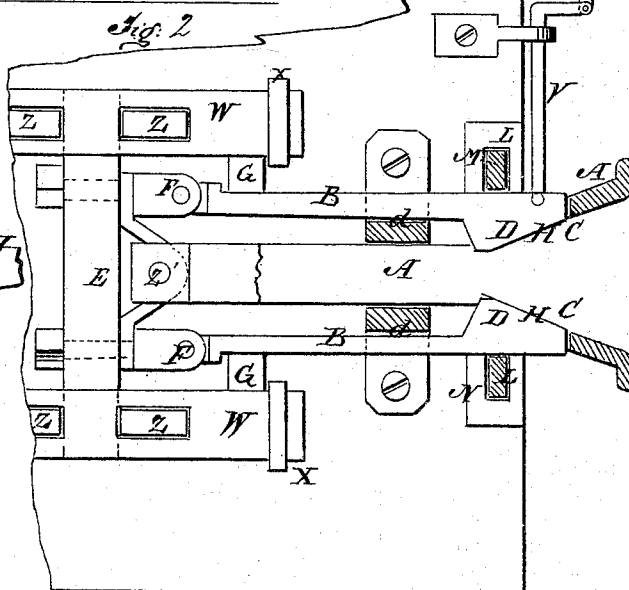
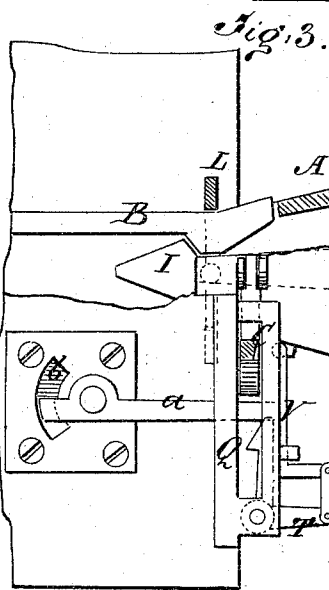
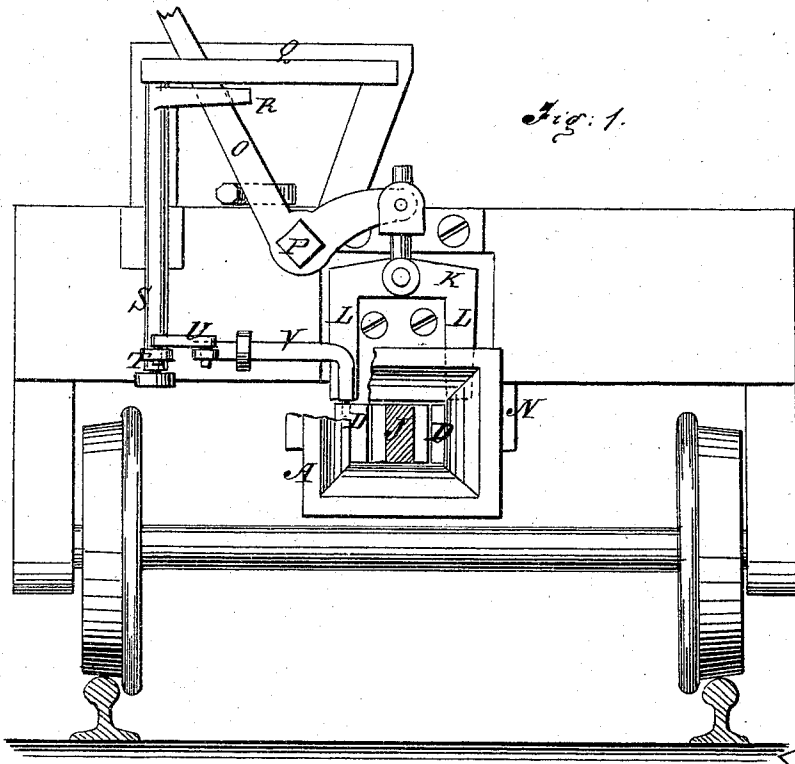


Car-Couplings.

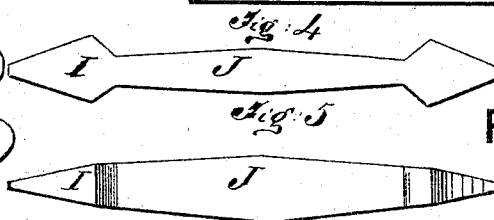
No. 144,038.

Patented Oct. 28, 1873.



Witnesses:

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Inventor:

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Per

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UNITED STATES PATENT OFFICE.

XAVIER ST. PIERRE, OF OPHIR CITY, UTAH TERRITORY.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **144,038**, dated October 28, 1873; application filed August 30, 1873.

To all whom it may concern:

Be it known that I, XAVIER ST. PIERRE, of Ophir City, in the county of Tooele and Territory of Utah, have invented a new and Improved Car-Coupling, of which the following is a specification:

My invention consists of a pair of spring-jaws, side by side, with heads or enlargements near the front end, between which a double-headed coupler enters, and is secured by the heads of the jaws engaging it behind its head, the jaws being confined against springing open by a forked locking-key, which drops down with one of its prongs or forks on each side of the jaws. The forked locking device is raised and lowered by a handled elbow-lever; and a catch is combined with said lever, to engage it just after it has raised the locking device, and hold it up until the cars are to be coupled again; and this catch is so coupled with one of the spring coupling-jaws that, when it is swung back by the lever to allow it to pass beyond said catch, the latter is caused to withdraw the said coupling-jaw, to allow the coupler to escape freely and uncouple the cars. A spring is combined with the elbow-lever of the locking device, to insure the return of the latter to confine the coupling-jaws when the elbow-lever is released by the spring-catch.

By employing the locking device with the spring-jaws they can be made much less powerful in the springs than they can be when the springs alone are relied on to hold the coupler, and thus they allow the coupler to enter and withdraw, when not secured by the locking device, without the aid of powerful apparatus for opening them.

Figure 1 is an end elevation of a car with my improved coupling apparatus applied, with a part of the draw-head broken out, and a section of the coupler. Fig. 2 is a plan of a portion of the bottom of the car, and a horizontal section of some of the parts. Fig. 3 is a plan of the top of the platform, and a horizontal section of some of the parts. Fig. 4 is a plan view, and Fig. 5 is a side elevation, of the coupler.

Similar letters of reference indicate corresponding parts.

A represents the draw-head, with the usual socket in the end for the coupler. B represents the coupling-jaws. They are arranged by the sides of the draw-head, which are slotted, as shown at C, for the head D. The jaws are pivoted to the draw-bar E at F, and provided with the springs G, for closing them against the stops *d*. The front ends of the jaws are beveled, at H, to correspond with the bevel of the mouth of the socket of the draw-head, so that the head I of the coupler J will glide in between them, and force them apart sufficiently for the head to pass beyond the heads D, so that they can close behind said head and retain it. K is the forked locking device, which falls down after the head has been thus engaged, and confines the spring-jaws by its prongs L, so that the strain of the head J upon the heads D cannot force them apart and allow the coupler to escape. The prongs of this locking device work in vertical mortises M in a metal frame, N, surrounding the draw-head, and are supported by said frame against the pressure of the jaws B. The said locking device is jointed to the short arm of an elbow-lever, O, by which it is raised and lowered. Said lever is pivoted, at P, to the end of the platform, and swings, near the upper end, along a guide, Q, at the outer end of which is a catch, R, for engaging the lever, to hold the locking device up. This catch is attached to the vertical oscillating shaft S, which has an arm, T, at the lower end, which is connected, by the link U and rod V, with one of the jaws B, so that, when the lever strikes the catch and swings it around to pass it, the catch turns the shaft S, so as to pull the jaw back and release the coupler at the moment the locking device rises above the jaws, and releases them. The lever O is thrown back, to let the locking device fall, by the arm *a* and spring *b*. Then the coupler is allowed to escape freely, and without the great labor necessary when it is held entirely by the spring of the jaws. The draw-bar is arranged to slide forward and back in slots in a couple of pieces, W, held up to the bottom of the car by stirrups X or bolts, and having strong springs of rubber, Z, traversing the slots in which the draw slides, to neutralize the shocks.

The draw-head is jointed to this draw-bar at Z'.

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

1. The combination of the locking device K with the coupling-jaws B and the coupler J, substantially as specified.

2. The combination of the elbow-lever O,

catch R, rock-shaft S, and arm T with the locking device K and one of the coupling-jaws, the arm T being connected to jaw by a rod and link, all substantially as specified.

XAVIER ST. PIERRE.

Witnesses:

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