(No Model.)

J. C. BRYAN.

CAR COUPLING.

No. 291,289. Patented Jan. 1, 1884.

fig. 1.

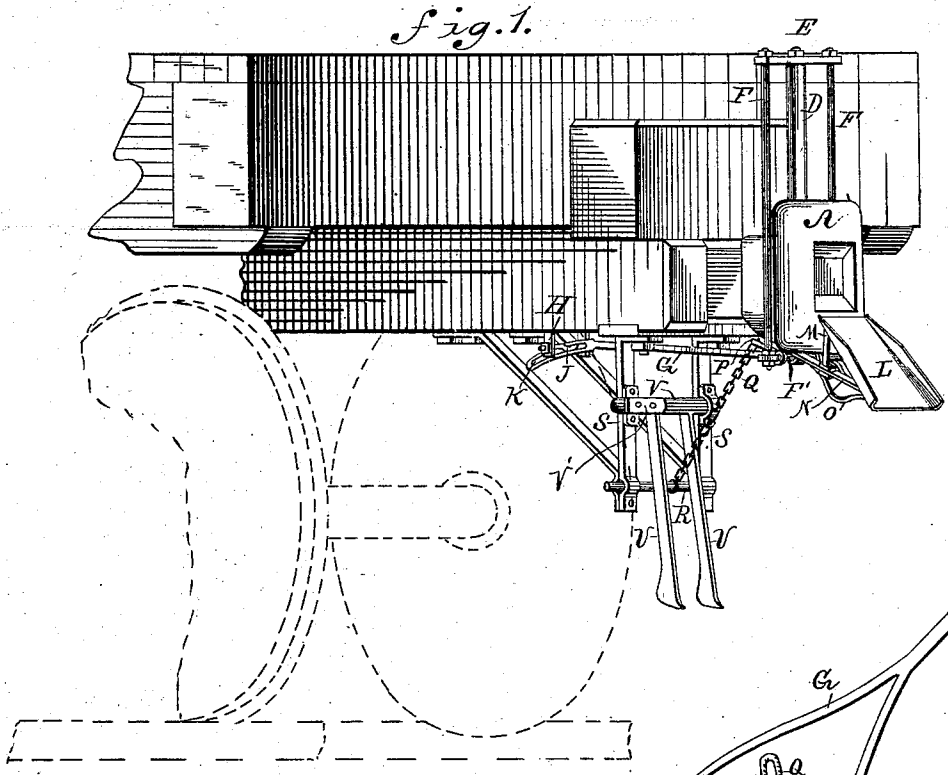


fig. 2.

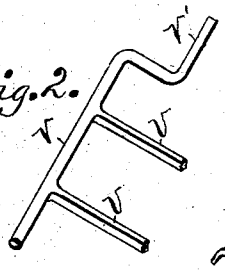


fig. 3.

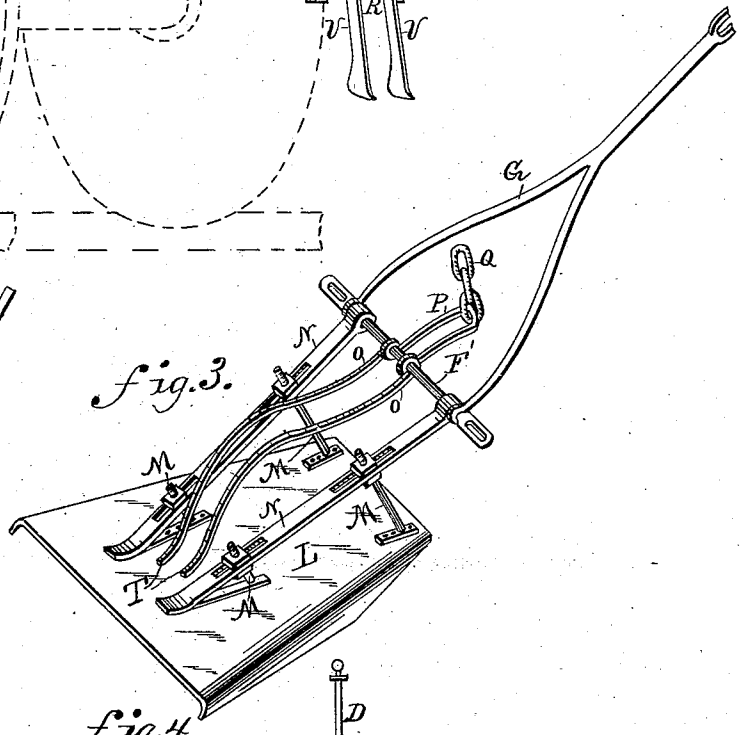
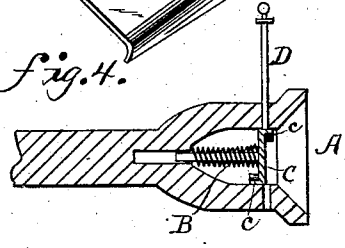


fig. 4.



WITNESSES:

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JOHN C. BRYAN, OF HOLLY SPRINGS, ARKANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 291,289, dated January 1, 1884.

Application filed October 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. BRYAN, of Holly Springs, in the county of Dallas and State of Arkansas, have invented a new and useful Improvement in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

The object of this invention is to provide means whereby an ordinary pin-and-link coupling may be made to couple automatically; and the invention consists of the novel construction herinafter described and claimed.

In the drawings, Figure 1 is a perspective view of one end of a car-truck, showing my invention. Figs. 2 and 3 are detail perspective views, and Fig. 4 is a sectional view of the draw-head.

The draw-head A is provided with an internal spring, B, to which is attached a plate, C, having lips *c c* bent at right angles thereto in opposite directions. One of these lips serves as a base for the plate which is to slide back and forth in the draw-head, and the other is a support for the coupling-pin D when the latter is in position for coupling. When in such position, the lower end of the pin rests on top of the upper lip of the plate, and the impact of the link against the latter in coupling causes the plate to move backward in the draw-head and allow the pin to fall through the draw-head and engage the link. The pin D is rigidly connected at its upper end to a lifting frame, E, having two arms, F, extending down on opposite sides of the draw-head, and connected together under the draw-head by a cross bar or rod, F′. To guide and support the frame E in its movements and when stationary, a forked bar, G, is loosely connected to the rod F and extended inward to a clip, H, which is bolted to a suitable support, to which clip the bar G is connected by a bolt, J, in the clip, which passes through a curved slot, K, in the inner end of said bar. The slot allows the bar G to move longitudinally as the frame E moves up and down.

The link-guide consists of an apron, L, having bolts M rigidly secured to its under side, and a pair of arms, N, which are hinged on the rod F′, to allow the apron to swing under the draw-head or be held up in front of the same. These arms are slotted where they receive the bolts M, to allow them to be set longer or shorter, according to circumstances. On the rod F′ is also hinged or loosely mounted a curved spring or lever, O, the short end P of which is connected by a chain, Q, to a cross-bar, R, at the lower end of hangers S, attached to the bumpers, while the long end T is adapted to bear against the under side of the apron when the frame E is moved upward.

For lifting the frame E a pair of arms, U, are connected to a rod, V, which is journaled in the hangers S, and are to be lifted by turning a crank, V′, on the rod V, to cause their ends to touch and bear upward against the cross-bar F′. As the cross-bar, together with the frame E, and pin D, is lifted the chain Q will be put under tension, causing the spring or lever O to swing the apron forward in front of the draw-head, to receive and guide the link into the latter.

What I claim is—

1. The combination of the frame E, having cross-bar F, the apron L, having adjustable arms hinged on said bar, the spring or lever O, loosely mounted on said bar, and the chain Q, for holding one end of the spring or lever, substantially as shown and described.

2. The combination of the frame E, the apron L, the spring O, the chain Q, the hangers S, the forked and slotted bar G, and clip H, substantially as shown and described.

3. The combination of the frame E, carrying the pin D, the spring-actuated plate C, for supporting the pin, and the swinging arms U and hangers S, substantially as shown and described.

JOHN C. BRYAN.

Witnesses:
W. J. PROCTOR,
W. H. HENRY.