J. A. RICHARD.

CAR-COUPLING.

No. 177,006 Patented May 2, 1876.

Fig. 1.

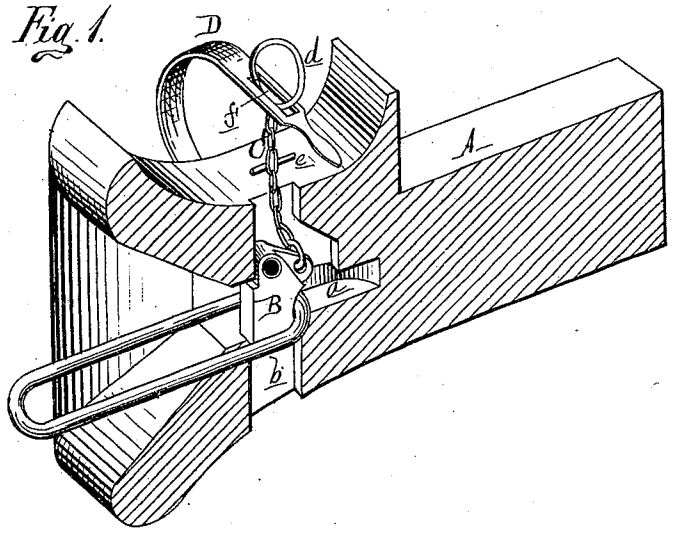


Fig. 2.

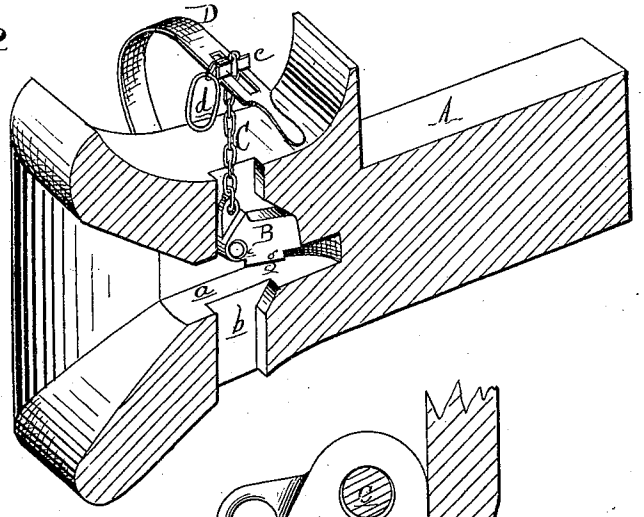
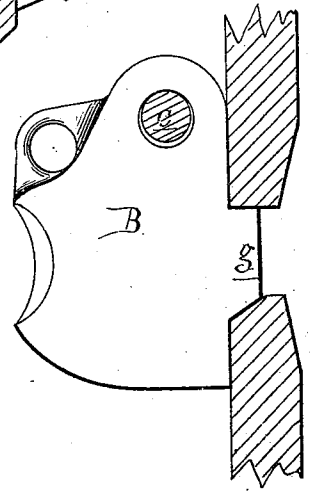


Fig. 3.



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JOSEPH A. RICHARD, OF COLUMBIAVILLE, MICHIGAN.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **177,006**, dated May 2, 1876; application filed March 15, 1876.

To all whom it may concern:

Be it known that I, JOSEPH A. RICHARD, of Columbiaville, in the county of Lapeer and State of Michigan, have invented an Improvement in Car-Couplings, of which the following is a specification:

The nature of my invention relates to an improvement in car-couplings of that variety in which the entering link is automatically engaged by a gravity-latch pivoted in the upper part of the draw-head socket; and its object is to provide a means for automatically lifting the latch into the uncoupled position, and retaining it there when the latch is freed from the strain of the link.

Figure 1 is a sectional perspective view of the draw-bar, showing a link coupled therein. Fig. 2 is a similar view, showing the link withdrawn and the latch held up in the uncoupled position by the devices for that purpose. Fig. 3 is a side elevation of the latch on an enlarged scale, showing, also, a portion of the draw-head.

In the drawing, A represents the draw-head, fitted with the usual bell-mouth, from which a socket, *a*, extends back toward the shank, and is intersected by a vertical recess, *b*, or slot, in which, above the socket, is hung a gravity-latch, B, by a transverse pivot-bolt, *c*, the eye for which in the latch is oval, so as to permit said latch to have a little play thereon in a horizontal plane. C is a chain, connected to an ear on the rear upper part of the latch, with a ring, *d*, on its upper end, below which a toggle, *e*, is formed on one of the links. This chain passes up through the slot *b*, and by it the latch can be lifted up into the uncoupling position. D is a C-spring, fastened to the draw-head in such a manner that its upper end will overhang the top of the draw-head, its extremity being finished as a handle, back of which there is a slot, *f*, cut in it, through which the chain passes, the ring being, however, too great in diameter to pass through. If the cars that are coupled be standing still and under tension of their links, the brakeman can, by depressing the spring and drawing up the chain until he can turn the toggle *e* above the spring, put the chain under such tension that, after he has left the track and given the signal to slack up, the springs will draw up the latches to the uncoupling position, thereby avoiding the many chances for accident to life and limb by going between moving cars to uncouple them.

To prevent the pivot-bolt *c* from being rapidly worn by the friction of the latch, if hung free to vibrate with the motion of the car, the latch has formed on its front edge a lug, *g*, beveled on its lower edge, which lug enters the throat of the draw-head, and as the bevel of the lug raises it slightly the weight of the latch is taken off the pivot-bolt, while the strain of the link will be transferred to the face of the slot *b*.

What I claim as my invention is—

The spring D and chain C, provided with the toggle *e*, in combination with the latch B, pivoted in the slot *b* of the draw-head A, substantially as and for the purpose set forth.

JOSEPH A. RICHARD.

Witnesses:

H. F. EBERTS,

H. S. SPRAGUE.