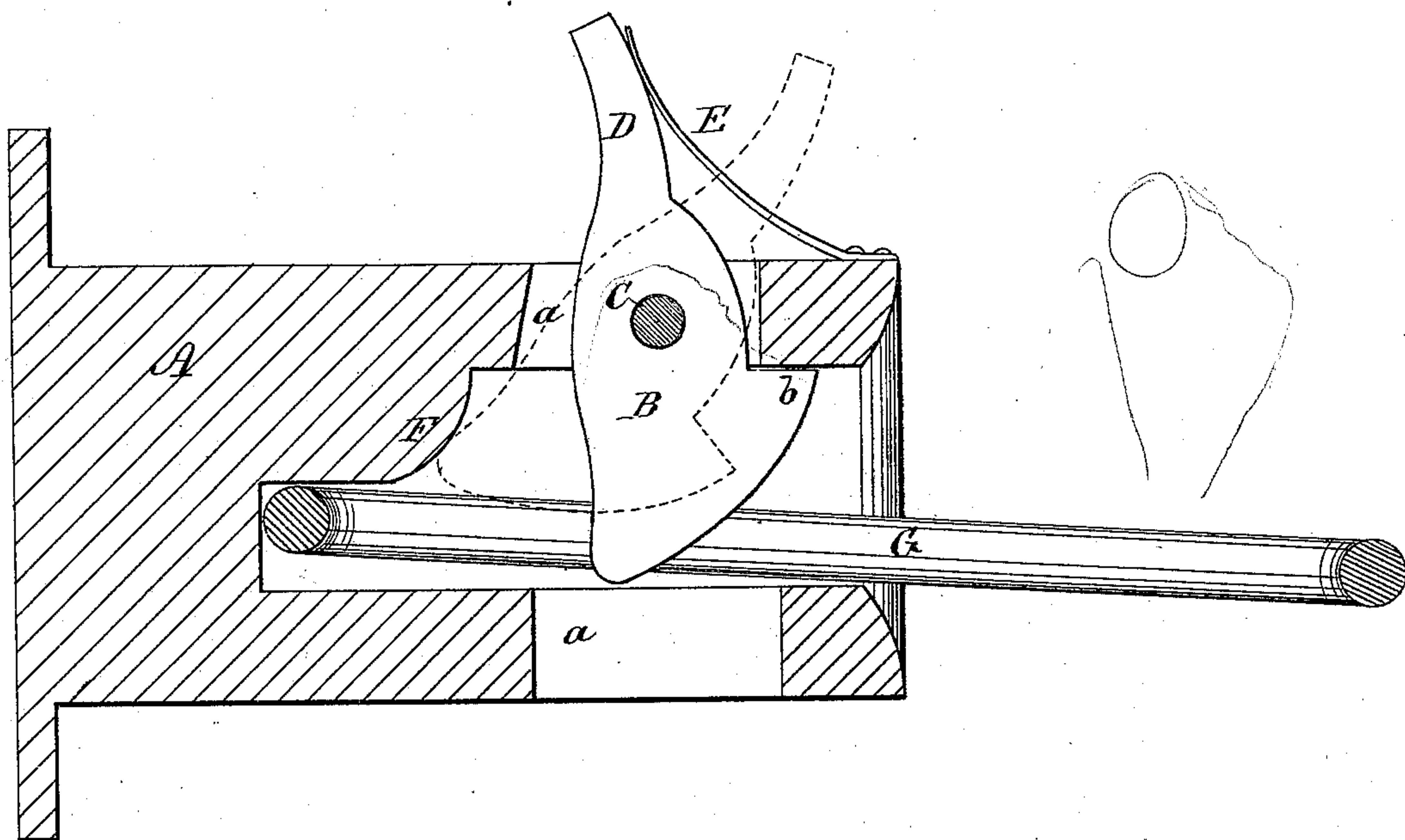


J. S. PURNELL.

CAR-COUPLING.

No. 174,299.

Patented Feb. 29, 1876.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN S. PURNELL, OF BERLIN, MARYLAND.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **174,299**, dated February 29, 1876; application filed January 21, 1876.

*To all whom it may concern:*

Be it known that I, JOHN S. PURNELL, of Berlin, in the county of Worcester and State of Maryland, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which the figure is a vertical longitudinal section.

My invention relates to that class of car-couplings which automatically couple upon being brought together. It consists in the peculiar construction and arrangement of devices in which a wide coupling-pin, with a curved face and shoulder, is pivoted upon a horizontal detachable bolt or pin in the slotted draw-bar, and is provided with an upper extension above the draw-bar, against which a spring bears, to restore and hold the pin in vertical position after being deflected by the entering link. The draw-bar is provided upon the interior with a projection, which holds the link horizontal, and also operates as a stop to the backward movement of the pivoted pin, thus preventing too great a strain upon the spring.

In the drawing, A represents the draw-bar of my improved car-coupling, which may be made of the most approved form. B is the coupling-pin, which is pivoted upon the pin or bolt C, passing through the upper portion of the draw-bar. The bolt C is made detachable, and the draw-bar is slotted both above and below, at *a a*, to admit the removal of the pin when broken or worn, without removing or interfering with the spring above, the said pin being allowed, after the horizontal bolt is withdrawn, to drop vertically through the bottom slot *a*. The coupling-pin is made wide to give room for the central bolt-hole,

and also to impart strength, and is made with a curved front face to reduce friction, and render the entrance of the link smooth and easy. D is an upper extension of the coupling-pin, made in one piece with the same, and projecting above the top of the draw-bar. Against this extension a spring, E, bears, to restore the pin to its position after the entrance of the link and hold it there, the spring operating against the pin in one direction, and a shoulder, *b*, upon the pin holding the same in proper vertical position against the action of the spring, so as to limit the movement of the same. The spring is attached to the top of the draw bar, and inclines to the rear, so as to be out of the way. F is a projection upon the upper interior rear portion of the draw-bar, which holds the subjacent link G in horizontal position while coupling, and also acts as a stop to the backward movement of the coupling-pin, as shown in dotted lines, to prevent too great a strain upon the spring E.

From the above description it will be seen that the automatic coupling is very simple in both construction and operation, and the parts, being detachable, are each readily replaced without alteration or injury to the rest.

Having thus described my invention, what I claim as new is—

The improved automatic car-coupling, consisting essentially of the draw-bar A, slotted at *a a*, and having the projection F, the detachable pin B, having shoulder *b* and extension D, the detachable pivot-bolt C, and the spring E, all combined and arranged as shown and described.

JOHN S. PURNELL.

Witnesses:

H. C. HUDSON,  
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