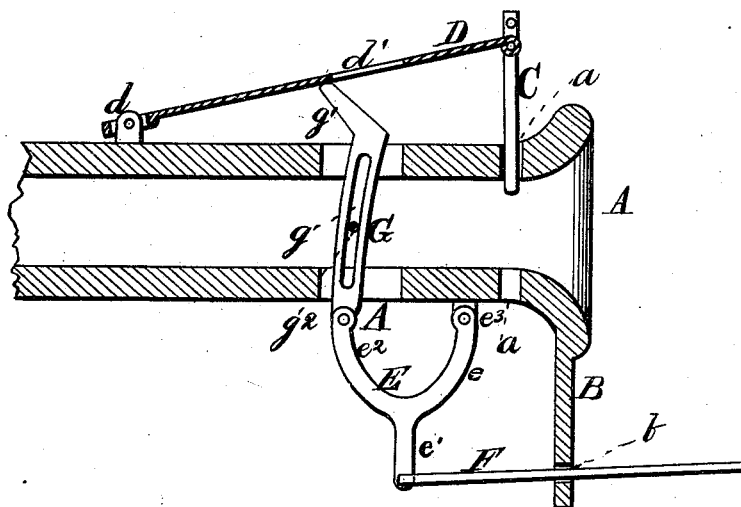


A. SCOLES.
CAR-COUPLING.

No. 181,484.

Patented Aug. 22, 1876.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT SCOLES, OF CIRCLEVILLE, OHIO.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. **181,484**, dated August 22, 1876; application filed July 15, 1876.

To all whom it may concern:

Be it known that I, ALBERT SCOLES, of Circleville, in the county of Pickaway and State of Ohio, have invented a new and valuable Improvement in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawing is a representation of a longitudinal vertical sectional view of my car-coupling.

This invention is an improvement on the car-coupling secured to Weldon C. Scoles by Patent No. 160,473, dated March 2, 1875, and subsequently transferred by assignment to Albert Scoles. It relates to devices for automatically coupling cars on railroads, and is applicable to draw-bars of different heights, as well as to those of the same height, from the ground.

This invention dispenses with the springs used in the above-mentioned patent, and substitutes for the inclined levers used therein a single Y-shaped lever and straight actuating-rod, hereinafter particularly described.

In the accompanying drawings, A represents a draw-head, provided at its mouth with a rigid depending plate, B, which is perforated at *b*. Said draw-head is also provided with the usual pin-holes *a a*, to allow the vertical movement of a heavy coupling-pin, C. Said pin is pivotally supported by the free end of a vertically-vibrating arm or plate, D, which is hinged at its rear end *d* to the top of the draw-head, or draw-bar, and slotted longitudinally at *d'*. To the under side of draw-head A is hinged at *e*² one of the upper arms, *e*, of a Y-shaped lever, E. To the lower arm *e*¹ of said lever is pivotally attached a horizontal rod, F, which passes through perforation *b* in plate B. The other upper arm *e*² of lever F carries a pivoted extension-plate, G, which passes vertically through openings A' in the draw-head A. Said extension-plate is longitudinally

slotted at *g*, and provided with an oblique rear upper lug, *g*¹. Lateral pin *g*², rigidly attached to the inside of draw-head A, sets in slot *g*, and guides and limits the play of the extension-plate G. Lug *g*¹ ordinarily supports the pin-carrying arm or plate D, a little back of slot *d'* in said arm or plate.

The operation of the device is as follows: The parts being set as shown, when the link to be coupled enters the draw-head A, the opposite car will strike the outer end of horizontal rod F, driving said rod inward, so as to make Y-shaped lever E and extension-plate G revolve about the pivotal point *e*², except so far as such motion of the extension-plate is controlled by pin *g*². This movement lifts the pivoted arm D until lug *g*¹ passes under slot *d'*, when the weight of coupling-pin C will cause said slotted arm to fall down over said supporting-lug, like a sleeve, and said coupling-pin will fall through holes *a a*, behind the entering-link, effectually coupling the cars.

This coupling is applicable to draw-heads which are at different heights from the ground, as well as to those that are at the same height. But in the former case it is necessary to use a bent link, the ends of which are adapted to enter the different draw-heads.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of pivoted slotted arm D, with pin C, Y-shaped lever E, horizontal rod F, and extension G, substantially as set forth.

2. The combination of draw-head A, perforated plate B, horizontal rod F, lever E, slotted extension G, pin *g*², lug *g*¹, slotted arm D, and gravitating-pin C, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALBERT SCOLES.

Witnesses:

J. P. WINSTEAD,
C. F. KRIMMEL.