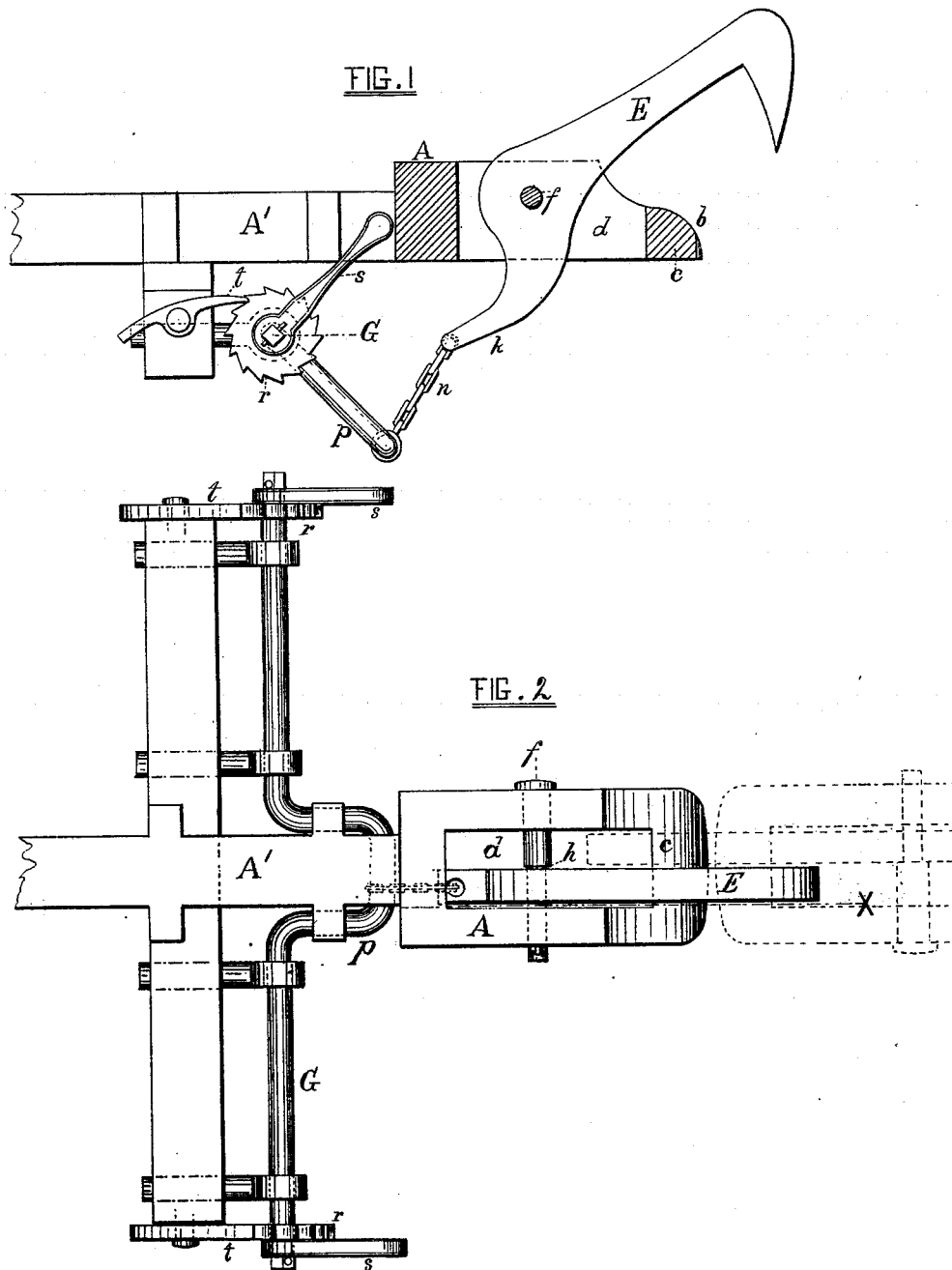


G. M. A. MICHAEL & P. K. BEAM.  
Car-Coupling.

No. 218,681.

Patented Aug. 19, 1879.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE M. A. MICHAEL AND PERRY K. BEAM, OF LONG GLADE, VIRGINIA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **218,681**, dated August 19, 1879; application filed June 24, 1879.

*To all whom it may concern:*

Beit known that we, GEORGE M. A. MICHAEL and PERRY K. BEAM, of Long Glade, in the county of Augusta and State of Virginia, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

Our invention relates to an improvement in car-couplers of that class designed to obviate the necessity of a person going between the cars to effect the coupling or uncoupling.

The invention consists in certain peculiarities of construction and combination of parts, which will first be described, and then pointed out in the claim.

Figure 1 of the drawings is a side view, part of the draw-head being in section. Fig. 2 is a plan view of the coupler.

The letter A represents the draw-head made of cast or forged iron attached to the bar A'. The draw-head slants off from the upper down to the forward part, as shown at b, across which part it is provided with a coupling-bar, c, to which the coupling-hooks connect. A rectangular opening, d, is formed through the head in a vertical direction, in which the coupling-hook E is pivoted on a pin, f, which passes transversely through the sides of the head and across the opening, the hook end by this arrangement having a vertical swinging movement. The opening is of width sufficient to allow one coupling-hook to be pivoted therein, and to allow another hook, attached in like manner to another car, to connect its hook end with the bar c alongside of the pivoted hook. The pin f is of a certain size from its head to a point midway from its extremities, from whence to the end opposite the head it is of a smaller size, upon which part the coupling-hook is pivoted. By this arrangement a shoulder, h, is formed at the center of the opening, which serves to keep the coupling-hook upon one side.

The inward end of the pivoted coupling-hook terminates in a downward and backward curved projection, K, and to its extremity a

chain, n, is attached, which chain connects with the U-shaped arm p on the transverse rock-shaft G, which is secured to the bottom of the car across its forward end. By this construction the U-shaped arm is adapted to have a vertical swinging movement.

Each end of the rock-shaft is provided with a ratchet-wheel, r, rigidly secured, and a hand-lever, s. A pawl, t, is pivoted so as to engage with the ratchet, and when so engaged may be made to hold up the hook end of the coupling-hook. When the pawl is not so engaged, the coupling-hook will, by its gravity, rest on the coupling-bar c, ready for automatic engagement with another car.

It will be seen the construction is such that the cars may be uncoupled by depressing the lever s, thus obviating the necessity for a person to go between the cars to uncouple; and as it is adapted to couple automatically there is no danger to life or limb in its use, as there is in the common link and pin.

As two hooks are used to effect the coupling—namely, one from each car—the strength of the coupler would seem to be most ample.

We are aware that the elements or parts of the herein-described improvement have been used before separately, or in other combinations different from the arrangement here shown.

Having described our invention, we claim and desire to secure by United States Letters Patent—

In a car-coupler, the combination of a draw-head having a vertical opening for the hook, a coupling-hook pivoted to swing vertically, with its inward end terminating below the draw-head in a projection, K, a rock-shaft, G, having an arm, p, and at each end a lever, s, and a chain, n, connecting the arm with the inward end of the hook, as set forth.

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Witnesses:

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SAMUEL C. NEFF.