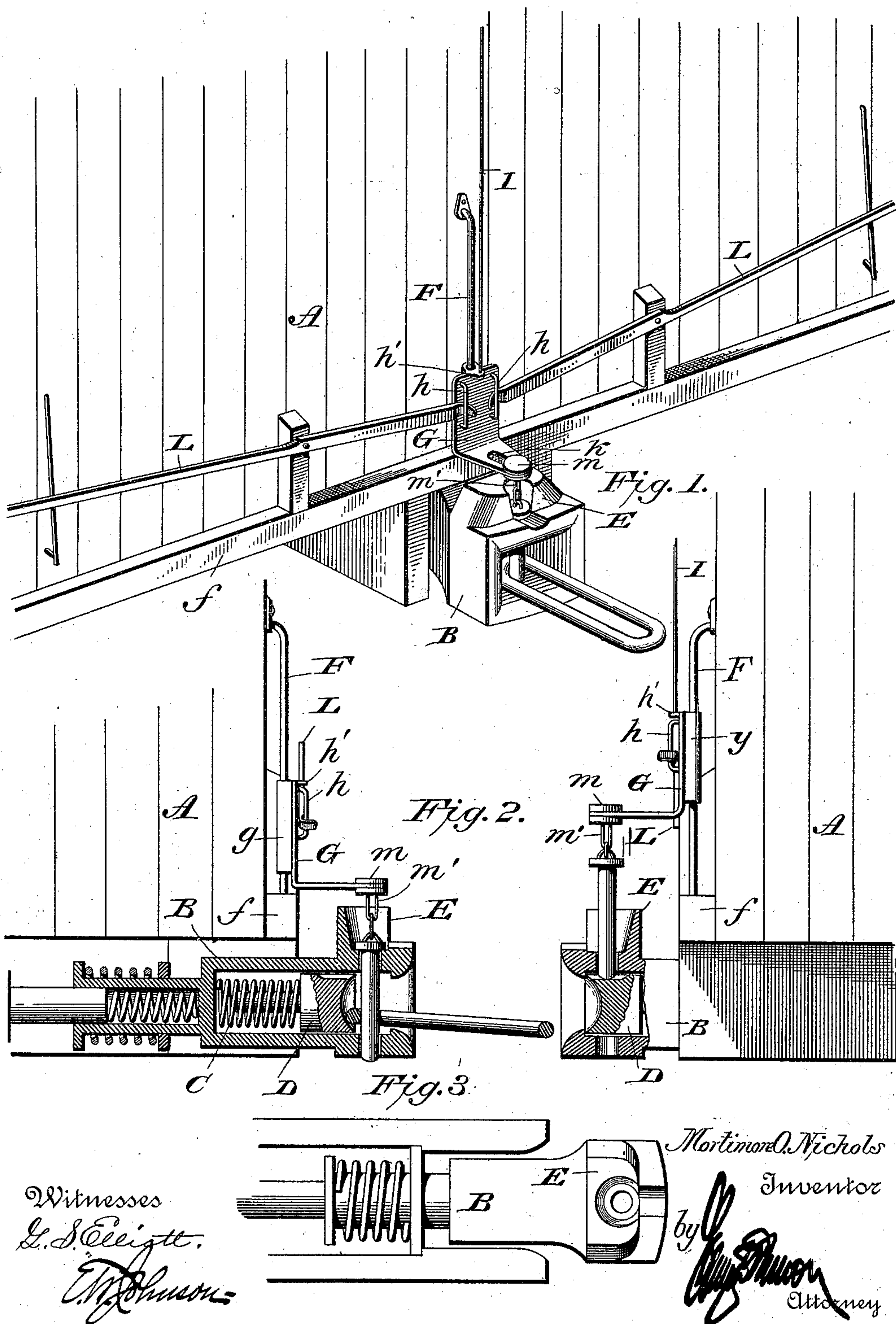


(No Model.)

M. O. NICHOLS.
CAR COUPLING.

No. 547,279.

Patented Oct. 1, 1895.



UNITED STATES PATENT OFFICE.

MORTIMORE O. NICHOLS, OF MENDON, OHIO, ASSIGNOR OF ONE-HALF TO
WILLIAM COCHRAN AND ELY A. YOCUM, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 547,279, dated October 1, 1895.

Application filed July 18, 1895. Serial No. 556,360. (No model.)

To all whom it may concern:

Be known that I, MORTIMORE O. NICHOLS, a citizen of the United States of America, residing at Mendon, in the county of Mercer and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in car-couplings which are coupled automatically and which can be manipulated for the purpose of uncoupling the cars either from the top or side of the same by means of rods, which are connected to a sliding plate to which the coupling-pin is attached; and the invention consists more especially in the special construction of the angle-plate to which the operating rods or levers are connected, said angle-plate being adapted to slide upon a rod attached to the car-body and having a slot in which the pin connection moves to allow for the movement of the draw-head, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of the mechanism for uncoupling the cars. Fig. 2 is a sectional view, and Fig. 3 is a plan view of the preferred form of draw-bar.

A designates the car-body, to which the draw-bar B is attached in any suitable manner, that shown in the drawings being preferred. Within the draw-head, located at the forward end of the draw-bar, is located the sliding pin-support D, which is held normally against the forward part of the draw-head by means of a helical spring C. This slide provides for the automatic coupling of the cars, as the pin rests upon the upper end of the same until the coupling-link enters the draw-head and forces said slide rearward, which movement permits the coupling-pin to drop in place.

The upper part of the draw-head is provided with an extended portion E, which is recessed centrally to form a continuation of the pin-opening, said recess being flared, as shown, to better guide the coupling-pin into the opening in the upper part of the draw-head.

To the car-body above the draw-head is attached a vertical guide-rod F, the lower end of which bears in the transverse beam *f*. Upon this guide-rod is adapted to slide an angle-plate G, said angle-plate being provided with a sleeve *g*, through which the rod is passed. The vertical member of the angle-plate is also provided with staples or loops *h h* and a projecting ear *h'*. To the ear is connected a rod I, which extends to the top of the car, so that said angle-plate can be manipulated from that point, the same operation being performed at either side of the car by means of the levers L L, which are pivoted to the car-body and are connected to the angle-plate by their inner ends entering the loops *h h*. The horizontal member of the angle-plate is provided with a slot *k*, in which is located a slide *m*, consisting of an upper and lower disk, which bear on each side of the angle-plate and are connected by a stem, which lies in the slot. The lower disk is provided with a loop *m'*, to which is attached a link connected to the coupling-pin.

With the device hereinbefore described by either drawing upon the rod I or depressing the outer ends of the levers L the coupling-pin will be elevated so as to uncouple the cars, and when the cars are uncoupled the slide D will be moved forward by the spring C and the link ejected and the slide moved under the opening in the upper part of the draw-head, so that the coupling-pin will be maintained in an elevated position ready to automatically couple the cars when they come together.

It will be noted that the draw-heads are permitted to have the usual movement or lateral play, and the angle-plate is permitted to turn upon the guide-rod, the ends of the levers L not interfering with such movement. It will also be noted that a back-and-forward movement of the draw-head will not affect

the uncoupling mechanism, as the slide *m* will move upon the angle-plate with the draw-head.

I am aware that prior to my invention it has been proposed to provide car-couplings with levers for elevating the coupling-pin; also, that it is not new to connect the coupling-pin to rods or bars which extend to the top of the car.

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

1. In a car coupling, the combination, of a drawhead having a slide for supporting the coupling-pin in an elevated position, an angle-plate movably attached to the car-body so as to have a vertical and a lateral movement, together with mechanism for elevating the angle-plate, substantially as shown, and for the purpose set forth.

2. In a device for uncoupling cars, the combination, of a guide rod carried by the car body, an angle-plate adapted to slide upon the guide rod and have a lateral movement thereon, the horizontal member of the angle-plate having a slot in which the means for connecting the coupling-pin thereto is located, substantially as shown, and for the purpose set forth.

3. In a device for uncoupling cars, the combination, of rod carrying an angle-plate to which the coupling-pin is connected, said angle-plate having outwardly projecting loops with which the ends of the operating levers engage so as not to interfere with the swinging movement of said angle-plate, substantially as shown.

4. In a device for uncoupling cars, the combination, of a guide rod attached to the car body above the drawhead, an angle-plate adapted to slide vertically thereon and to swing to accommodate itself to the lateral movement of the drawhead, said angle-plate having loops, levers pivoted to the car body and provided with bent ends which lie in the loops attached to the angle-plate, the horizontal part of the angle-plate having a slot and a connection which is adapted to move in said slot, said connection being attached to the coupling-pin, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MORTIMORE O. NICHOLS.

Witnesses:

J. R. MURLIN,
J. A. MURLIN.