(No Model.)

A. S. OKEY & J. A. SCROGGINS.

CAR COUPLING.

No. 421,425. Patented Feb. 18, 1890.

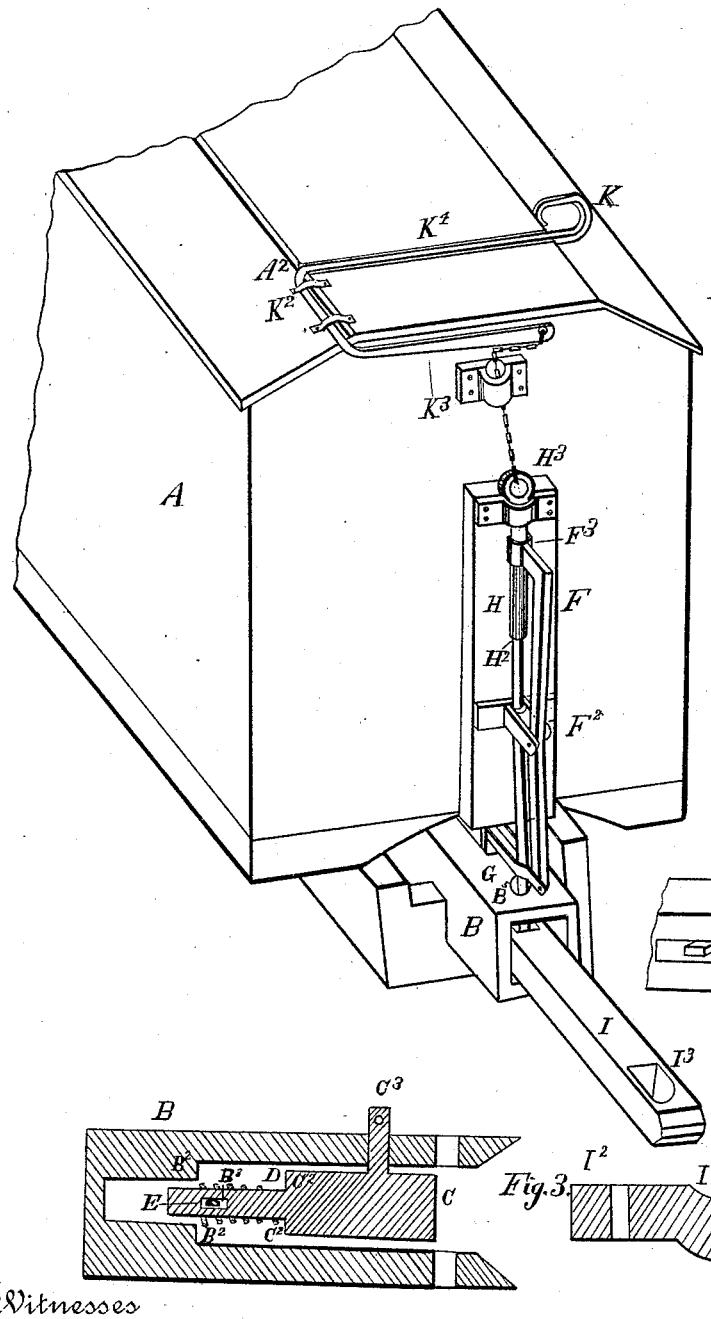

Fig. 1.

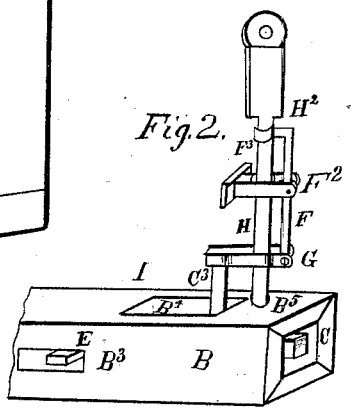

Fig. 2.

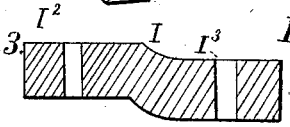

Fig. 3.

Witnesses

G. A. Clarke.

R. A. Haseltine.

Inventors

Arthur S. Okey &
James A. Scroggins

By their Attorneys.

S. A. & S. C. Haseltine.

UNITED STATES PATENT OFFICE.

ARTHUR S. OKEY AND JAMES A. SCROGGINS, OF MORRISVILLE, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 421,425, dated February 18, 1890.

Application filed November 9, 1889. Serial No. 329,737. (No model.)

To all whom it may concern:

Be it known that we, ARTHUR S. OKEY and JAMES A. SCROGGINS, citizens of the United States, residing at Morrisville, in the county of Polk and State of Missouri, have invented certain new and useful Improvements in Car-Couplings; and we 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.

Our invention relates to improvements in car-couplings, the object of which is to provide a cheap, simple, and durable device for quickly and easily uncoupling cars and for holding the pin up to automatically couple as the cars come together without going between the cars. These objects we attain by means of the device illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view in elevation of the entire device as applied to a car. Fig. 2 is a view of the draw-head enlarged. Fig. 3 is a longitudinal vertical section of the same.

Similar letters of reference indicate corresponding parts in the several figures.

A is an ordinary car.

B is a draw-head. Said draw-head is made hollow and provided with a plunger C, which works back and forth in the said draw-head, and said plunger is provided with shoulders C^2, against which one end of a spiral spring D is placed. The other end of said spring rests against shoulders B^2 of the draw-head, so as to hold the plunger forward, as shown in Fig. 3. The back part of the plunger is provided with a pin E, which works in a slot B^3 of the draw-head to prevent injuring the spring D when the draw-heads are forced together by stopping the plunger at the desired place. Said plunger has also a projection C^3, which extends up through the slot B^4 in the draw-head for operating a lever F, to which it is attached by means of pieces G, hinged to the lower end of the lever F and to the upper end of the projection C^3. Said hinged pieces are made to pass on the sides of the coupling-pin H, so as to permit it to work up and down between them. Said lever is pivoted to the end of the car by a support F^2. The upper end of the said lever is provided with a fork F^3 to straddle the coupling-pin for holding it up when the cars are uncoupled. For this purpose said coupling-pin is provided with a shoulder H^2, which rests against the fork F^3 when the pin is held up, and as the plunger C is moved back by the coupling-link I it throws the upper end of the lever F out and releases the coupling-pin H and permits it to drop through the opening B^5 in the draw-head and through the link. Said link may be made any desired shape for coupling cars of different heights, as shown in Fig. 3. The link is bent in the middle and the ends are extended horizontally. The ends I^2 of the link are made flat or square, so that as the plunger presses them forward against the pin when coupled the pin will stick out of the draw-head on a horizontal to enter the opening of the draw-head of the opposite car, and to assist in holding the link up in position the inside of the opening of the link at the end I^3 is made flat or perpendicular.

The lever K is secured to the top of the car, as shown, or in any other desired place for raising the coupling-pin H. For this purpose the coupling-pin has a head H^3, to which a chain is secured, one end of the said chain being secured to one end of the lever K. Said lever K is bent, as shown, and provided with hinges K^2, and to get it entirely out of the way the end K^3 projects beyond the end of the car, while the part K^2 is placed in a groove A^2 in the top of the car.

When the coupling-pin H is raised up by means of the lever K, the plunger C moves forward by reason of the spring D and throws the link out, and the projection C^3 causes the fork F^3 of lever F to clamp the pin below the shoulder H^2, and thus hold it up for another coupling. Thus we have a coupling which automatically couples with another car of the same kind, and may be coupled with any other ordinary car now in use.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, a coupling-pin H, having a shoulder H^2, combined with a lever F, said lever having a fork F^3 for holding said

pin up, said lever being operated by a plunger C, provided with a spring D, all substantially as shown and and described.

2. The combination, in a car-coupling, of a pin H, having a shoulder H^2 and a lever K for raising the same, with a lever F, having a fork F^3 for holding said pin up, and an open draw-head having a plunger provided with a spring D for operating the said lever F, all substantially as shown and described.

3. The combination of an open and shouldered draw-head having a plunger C for working back and forth, provided with a projection C^3, pin E, and spiral spring D, and a shouldered coupling-pin, with a lever F, having connections G, pivot F^2 and fork F^3, and a lever K for raising said coupling-pin, said lever K being placed in a groove A^2, and a link I, having flat ends I^2, and the ends of its openings being flat, all substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

ARTHUR S. OKEY.
JAMES A. SCROGGINS.

Witnesses:
J. W. ALLMON,
S. A. HAZELTINE.