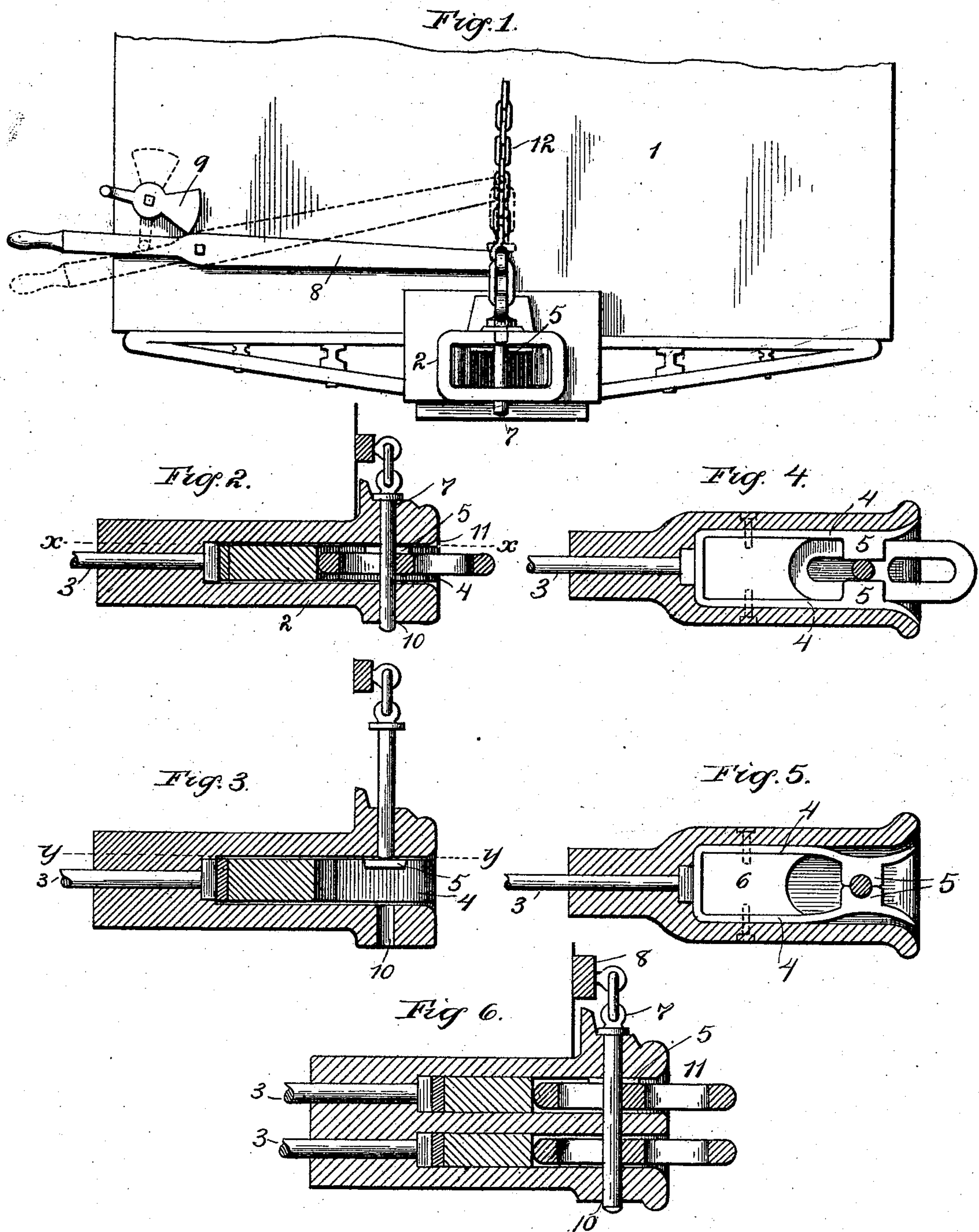


(No Model.)

O. S. GUERNSEY.
CAR COUPLING.

No. 501,832.

Patented July 18, 1893.



Witnesses.
Victor J. Evans.
L. M. Marble.

Inventor.
O. S. Guernsey.
By E. M. Marble
Attorney.

UNITED STATES PATENT OFFICE.

OSCAR S. GUERNSEY, OF SEYMOUR, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 501,832, dated July 18, 1893.

Application filed July 29, 1892. Serial No. 441,639. (No model.)

To all whom it may concern:

Be it known that I, OSCAR S. GUERNSEY, residing at Seymour, in the county of Jackson and State of Indiana, have invented certain
5 new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the
10 same.

My invention relates to improvements in automatically operating car couplers, and it consists in the construction and arrangement of parts hereinafter to be fully described and
15 particularly pointed out in the claims.

The object of my invention is to produce a car coupler which shall be entirely automatic in its action, which shall be fitted for use on all styles of railroad cars, which shall meet all
20 the varied requirements of railway traffic in the switching and handling of cars, and which shall be so simple in construction that any part can be readily replaced in case of accident to the same.

To this end, my invention consists in the use of a two-part spring, placed inside the drawmouth of the car, each of which parts is provided with an extending flange projecting toward the other part. When the drawmouth
30 is empty, and before the insertion of the link therein, these projecting flanges meet and form a ledge in which the coupling pin rests, thus preventing the coupling pin from dropping into the drawmouth. When, however, a link
35 is forced into the drawmouth, it presses the two parts of the spring apart, thus allowing the coupling pin to drop. The passage of this coupling into its lower socket is rendered perfectly certain by a stop formed in the link,
40 and extending across the interior of the same.

A feature of my invention also resides in the mechanism I employ to hold the coupling pin entirely free of the drawmouth when desired.

My invention is fully represented in the drawings accompanying and forming a part of this application, in which the same reference numerals refer to the same or corresponding parts, and in which—

50 Figure 1 is an end view of a car provided with my coupling device, showing the coupling pin passed through the drawmouth and

the mechanism which I use to raise or lower the same. Fig. 2 is a section of the end portion of the car showing the coupling pin in
55 position in the drawmouth. Fig. 3 is a similar view showing the coupling pin held, by the action of the two-part spring, out of the drawmouth. Fig. 4 is a view of Fig. 2 taken on the line *x x*. Fig. 5 is a view of Fig. 3
60 taken on the line *y y*. Fig. 6 is a view of the end portion of the car which is fitted to receive a double coupling link, the said link being shown in position.

Referring to the drawings, 1 represents the
65 body of the car, which is provided with a drawmouth 2, and the drawbar 3, of the usual construction. In the interior of the drawmouth and extending from end to end of the same, I place a spring 4, which is bent so as
70 to present two projecting ends, on the upper front edge of each of which is formed a projecting flange 5. A block of wood or other material 6, is held in position in the rear of the drawmouth between the two parts of the
75 spring by suitable bolts or screws, and acts to increase the rapidity and firmness of action of the parts of the spring. When there is no coupling link in the drawmouth the action of the spring is such, as to force the two
80 projecting flanges 5 together and thus form a continuous ledge through the upper central portion of the drawmouth on the top of which the coupling pin 7 normally rests. The said coupling pin is connected by means of suit-
85 able links to one end of the pivoted handle bar 8, which is pivoted to the end of the car near one side of the same. The ratio of the lengths of the two ends of this handle bar or lever relative to the pivot, is such that a
90 small movement of the handle end of the bar will cause such a movement at the other end as to draw the coupling pin entirely out of the drawmouth. By the use of the fan-shaped dog 9, pressing against the short arm of the
95 lever 8, the said coupling pin may be held completely out of the drawmouth when desired.

When a link enters the drawmouth, it presses the two portions of the spring 4 apart, ¹⁰⁰ forcing the two parts of said spring tightly against the sides of the drawmouth and separating the flanges 5, so that an aperture is formed between them sufficient to allow for

the descent of the coupling pin 7 through the drawmouth into its lower socket 10, the stop 11, extending across the interior of the coupling link, rendering such descent of the coupling pin certain.

5 In Fig. 6, a modification of the drawmouth is shown, the drawmouth being doubled and being fitted for the reception of the double coupling link. The construction and operation
10 of the parts are not, however, materially different from that of the simpler form of drawmouth already described, and it therefore needs no separate description. It is evident that instead of using the pivoted lever 8 and
15 fan-shaped dog 9, to withdraw the coupling pin from the drawmouth, a simple chain 12, extending to the top of the car may be used instead. Thus the coupling pin may be withdrawn from the drawmouth either from the
20 top or side of the car.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car coupler, the combination with a
25 drawmouth, having secured inside of the same

a spring with two forwardly projecting ends, each of which has on its upper surface a side projecting flange, of a coupling pin resting on the said flanges when the drawmouth is empty, and a link provided with an interior
30 stop, for entering the drawmouth and causing the said coupling pin to pass through the drawmouth, substantially as described.

2. In a car coupler, the combination with a drawmouth, having secured inside of the same
35 a spring with two forwardly projecting ends, each of which has on its upper surface a side projecting flange, of a coupling pin resting on said flange when the drawmouth is empty, a link for entering the drawmouth and separating the two ends of the spring to cause the
40 passage of the coupling pin through the drawmouth, and the lever 8 and the fan-shaped dog 9, for holding the said coupling pin entirely free of the drawmouth when desired,
45 substantially as described.

OSCAR S. GUERNSEY.

Witnesses:

SIMON EACRET,

THOMAS M. STEWART.