

No. 667,510.

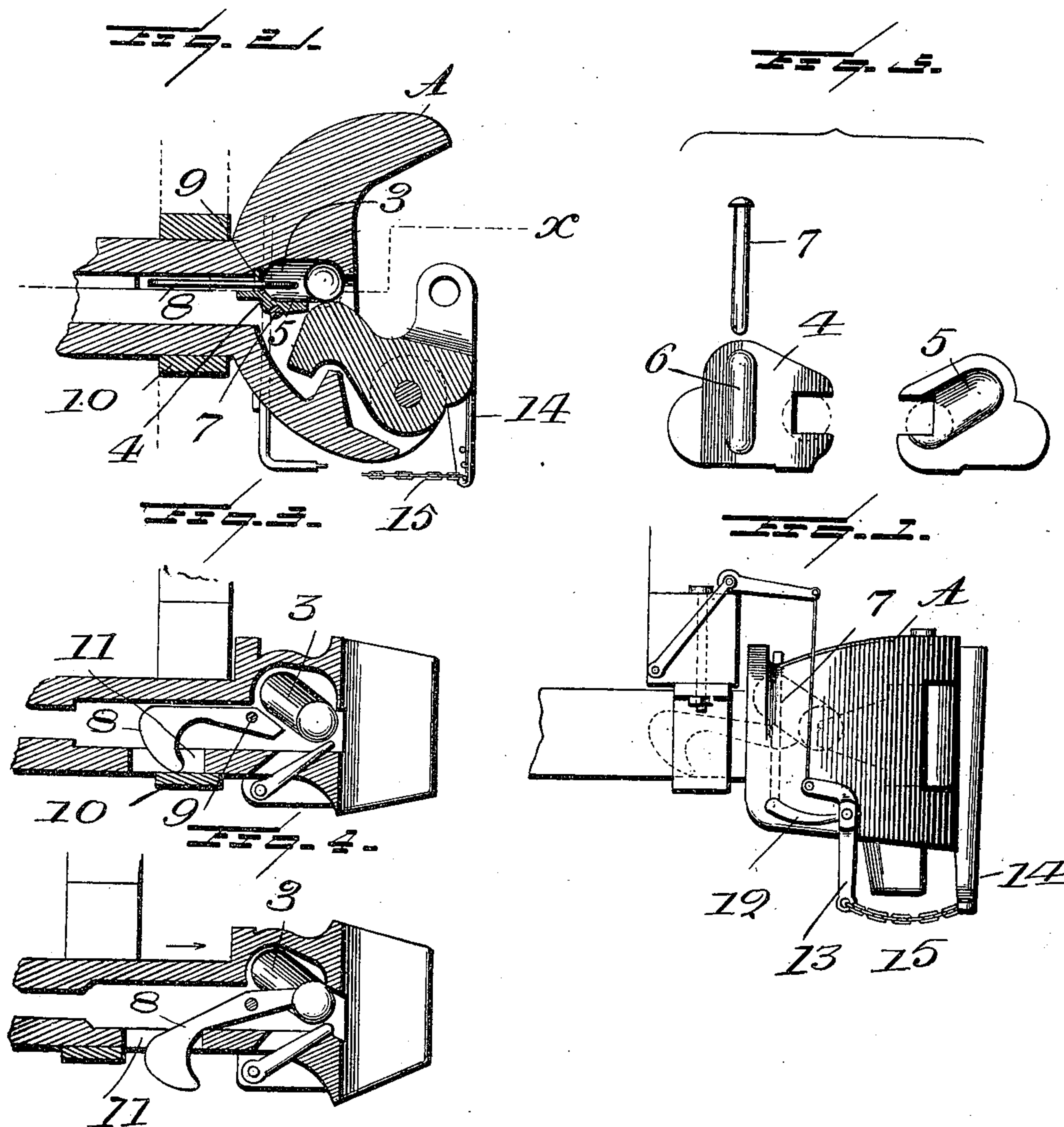
Patented Feb. 5, 1901.

J. W. FAWCETT.

CAR COUPLING.

(Application filed Dec. 5, 1898.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN W. FAWCETT, OF LAWRENCEBURG, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 667,510, dated February 5, 1901.

Application filed December 5, 1898. Serial No. 698,280. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. FAWCETT, a citizen of the United States, residing at Lawrenceburg, in the county of Dearborn and State of Indiana, have invented a new and useful Improvement in Car-Couplings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is an exterior side view of my improved car-coupling; Fig. 2, a horizontal sectional view of the same; Fig. 3, a vertical longitudinal section on line *x* in Fig. 2; Fig. 4, a view similar to Fig. 3, specially designed to represent the draw-bar being pulled out of the housing and the consequent effect upon the locking mechanism; Fig. 5, detail views showing opposite sides of the removable plate which forms a part of the ball-guide.

The chief object of this invention is to improve the device described in my Letters Patent No. 602,029, dated April 5, 1898, by providing automatically-operating mechanism whereby in the event of the breaking loose of the draw-bar from its anchorage the coupler-ball will be securely locked in its normal position thereby in connection with a stirrup-plate, the fall of the draw-bar upon the track and the consequent wrecking of the train being prevented by the present invention when used in connection with a vertical safety-bracket.

The invention furthermore provides an improved form of the ball-cavity whereby the ball may be easily inserted from the front of the draw-head, thus dispensing with the inconvenient arrangement as shown in the patent above referred to.

Other advantages incident to the improvement will hereinafter be set forth.

Referring to the accompanying drawings, A indicates the draw-head, having in its interior an inclined recess or cavity 3. (Clearly shown in Fig. 5.) One side of this cavity is occupied by a movable plate 4, having on one side a channel 3, which forms a part of the ball-guide, and on the opposite side a vertical groove 6 to receive a pin 7, by which it is firmly secured in position, with its lower edge resting on the bottom of the cavity. An os-

cillatory lever 8 is pivoted on a lateral stud 9, its short arm lying normally in the lower part of the cavity and the long arm resting on a stirrup 10, which spans a longitudinal slot 11 in the bottom of the draw-bar.

Referring to the uncoupling apparatus illustrated in Fig. 1, it will be observed that the rock-shaft arm 12 has its extremity pivoted on a supplemental angle-arm 13, having its lower end connected to the knuckle extension 14 by a chain 15, the upper end being linked to a rocking shaft 16, which is rotatably secured to the buffer-block. By this arrangement the ball is thrown back by the same movement that swings the knuckle open to a receptive position. In the event of an accidental detachment of a draw-bar the dependent end of the lever 8, (see Fig. 4,) being drawn off the stirrup, is free to drop and its short arm will rise directly in the path of the locking-ball, so that the latter cannot be thrown back, and the coupling is consequently positively secured. When the draw-bar becomes nearly detached, the chain 15 will have been drawn taut and would act upon the uncoupling mechanism; but the dropping of the locking-lever which intercepts the retreat of the ball precedes the tension of the chain and its connection, which may give way without causing material damage.

What I claim as new is—

In a ball coupling mechanism for railway-cars, the herein-described oscillatory lever pivoted to the inner side of the wall of the draw-head, the short arm disposed along the under side of the inclined ball-socket, the longer arm being normally supported by a stirrup and adapted to drop when drawn off said stirrup and cause the short arm to rise and block the rearward movement of the ball or locking device, substantially as and for the purpose herein specified.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of November, 1898.

JOHN W. FAWCETT.

Witnesses:

C. J. LANG,
A. HARTGEN.