

No. 713,240.

Patented Nov. 11, 1902.

F. S. PUTNAM.

CAR COUPLING.

(Application filed June 26, 1902.)

(No Model.)

Fig. 1

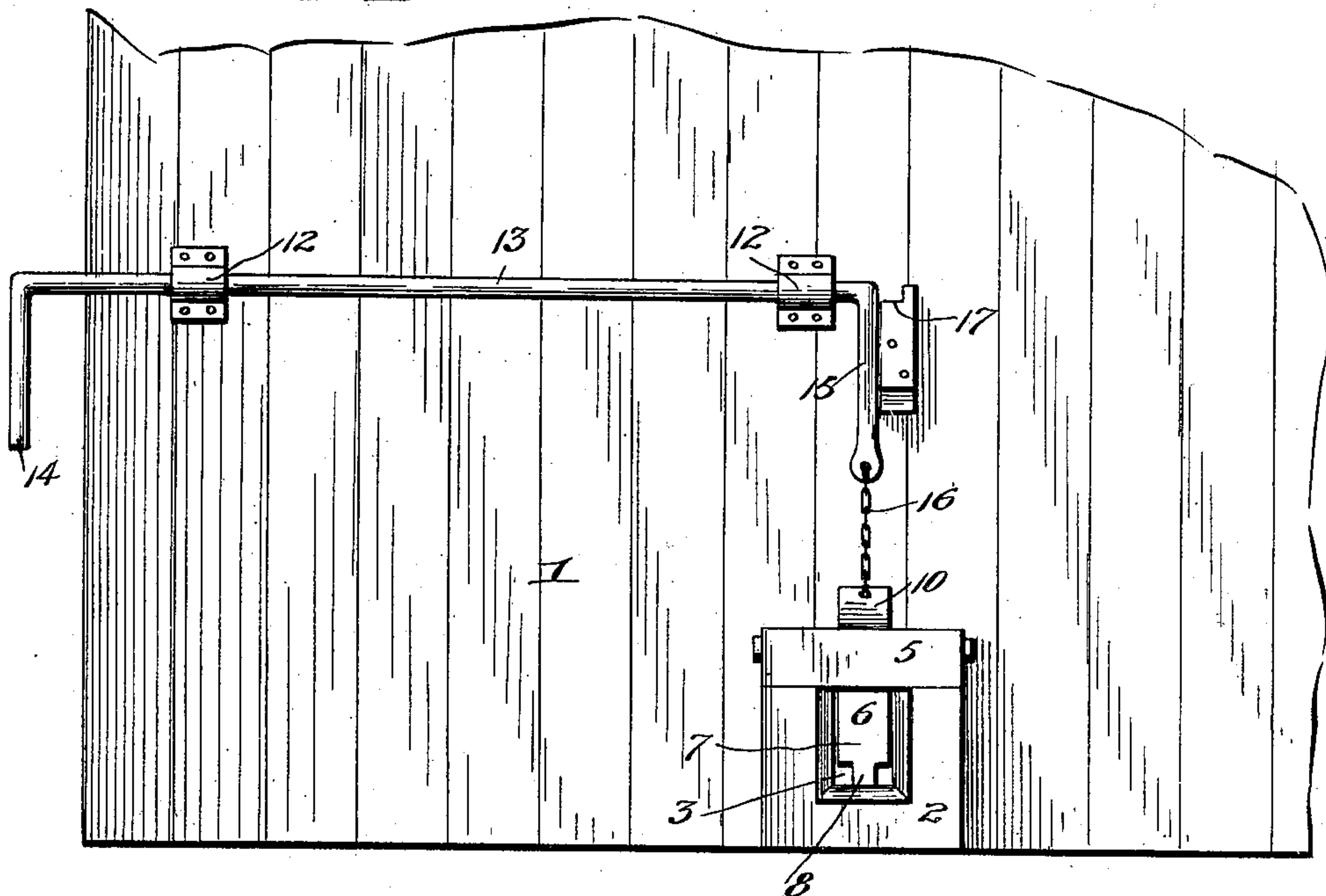
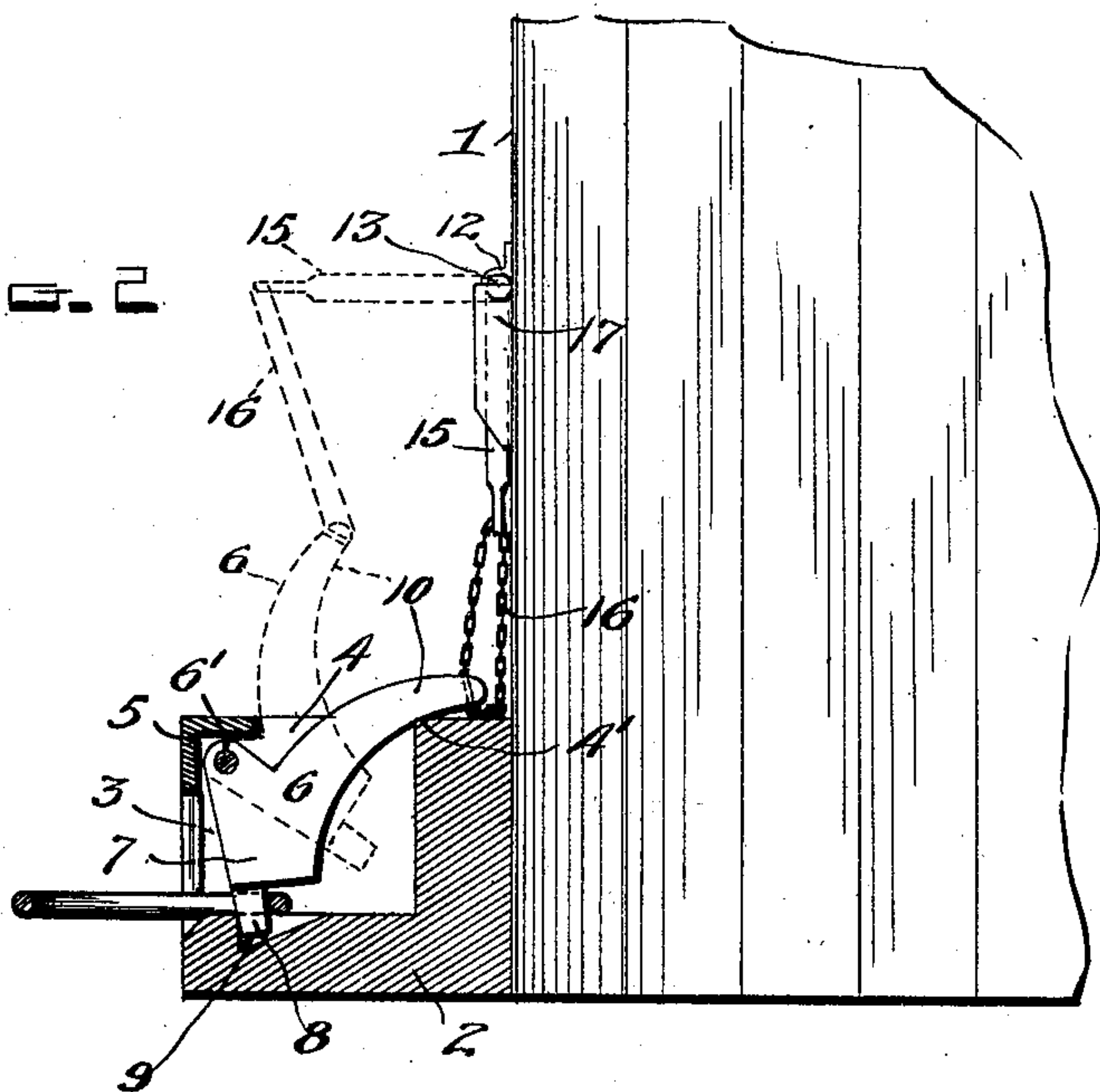


FIG. 2



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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 713,240, dated November 11, 1902.

Application filed June 26, 1902. Serial No. 113,317. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN S. PUTNAM, a citizen of the United States, residing at Anaconda, in the county of El Paso and State of Colorado, have invented certain new and useful Improvements in Car-Couplings; and I do 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.

My invention relates to automatic car-couplers, and has for its object to provide a device of this character which is simple, strong, and durable in construction, which will always couple upon the striking together of two couplers except when the parts are set to prevent coupling, and which can be easily and quickly uncoupled.

With this and other objects, which will appear as the nature of the invention is better understood, it further consists in the construction, combination, and arrangement of parts, as will be hereinafter fully described, claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of one end of a railroad box-car, showing my improved coupler attached; and Fig. 2 is a vertical longitudinal section through the same, showing in full lines the normal position of the latch or gate and the coupling-link and in dotted lines the position of the latch when held up to prevent coupling.

Referring to the figures on the drawings, 1 denotes the end wall of a box-car, and 2 the coupling-head, preferably made square and hollow, with the slots 3 and 4, formed in the end and top of the head, communicating with the hollow portion. The forward upper ends of these slots are closed by an angle-plate 5. A bell-crank coupling catch or gate 6 is pivoted at 6' in the forward upper portion of the hollowed coupler-head and when in its normal position has one of its arms 7 projecting downwardly directly in rear of the slot or opening 3 in the front end of the head and provided with a reduced end, forming a lug or finger 8, which engages the coupling-link, as shown in full lines in Fig. 2, and which limits the downward and outward swing of the arm 7 by abutting against a stop or shoulder 9, formed by recessing the bottom of the

hollow portion 4 of the coupler-head. The other arm 10 of the latch 6 projects rearwardly and upwardly through the slot 4 in the top of the coupler-head and has its outer end bearing upon the top of the head, as shown at 4'. It will be noticed that the latch 6 is pivoted in advance of the stop 9 and that the weight of the arm 10 will hold the finger 8 at all times in contact with the stop 9. Owing to this fact there will be little or no tendency of the cars becoming uncoupled by the up-and-down or rocking motion of the cars, and every pull on the latch will cause it to remain firmer in its proper position.

Journaled in suitable brackets 12 on the end wall of the car is a horizontal rod or shaft 13, which has both a rotating and sliding movement. Its outer end is provided with an operating-lever 14, and its inner end is bent at right angles to form a lever 15, the end of which is connected to the free end of the arm 10 of the latch 6 by a link or chain 16. Secured to the end of the car adjacent to the lever 15 is a shoulder or shelf 17, upon which the lever is adapted to rest when it is swung up to a horizontal position and the rod or shaft 13 in the brackets 12 slid over to bring the lever 15 above the shoulder.

In the normal position of the coupler-latch, as shown by the full lines in Fig. 2, it is at all times ready for coupling without the presence or attention of any operator, provided, of course, that one of the couplers has a link in position, as shown in the said figure. When the two couplers meet, the link enters the orifice-slot 3, forces the lower end of the arm 7 of the latch 6 rearwardly and upwardly until it passes under the finger 8, which will then drop by gravity and lock the link in place. When it is desired to uncouple the cars, the operating-lever 14 is swung upwardly, which movement will raise the latch 6 through the connection of the lever 15 and chain or link 16. When it is desired to hold the latch up to prevent the cars from coupling on coming together, the rod 13 is slid inwardly, after the lever 15 has been raised to a horizontal position, until it rests upon the shoulder or shelf 17, which will support said lever and hold the latch in the desired position, as shown by the dotted lines in Fig. 2.

From the foregoing description, taken in

connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

An automatic car-coupling comprising a draw-head having communicating slots formed in its end and top, a bell-crank coupling-latch pivoted in said head, one arm of which projects downwardly in rear of the slot

in the end of the head and is adapted to be engaged by the coupling-link and the other arm of which projects upwardly and rearwardly through the slot in the top of said head, means connected to the latter-mentioned arm for operating said latch, and an angle-plate adapted to close the forward outer ends of said slots so that when said plate is removed, the latch may be easily withdrawn from the head upon the removal of its pivot-pin, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANKLIN S. PUTNAM.

Witnesses:

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H. E. HOYT.