

(No Model.)

J. LESSARD.
CAR COUPLING.

No. 555,384.

Patented Feb. 25, 1896.

Fig. 1.

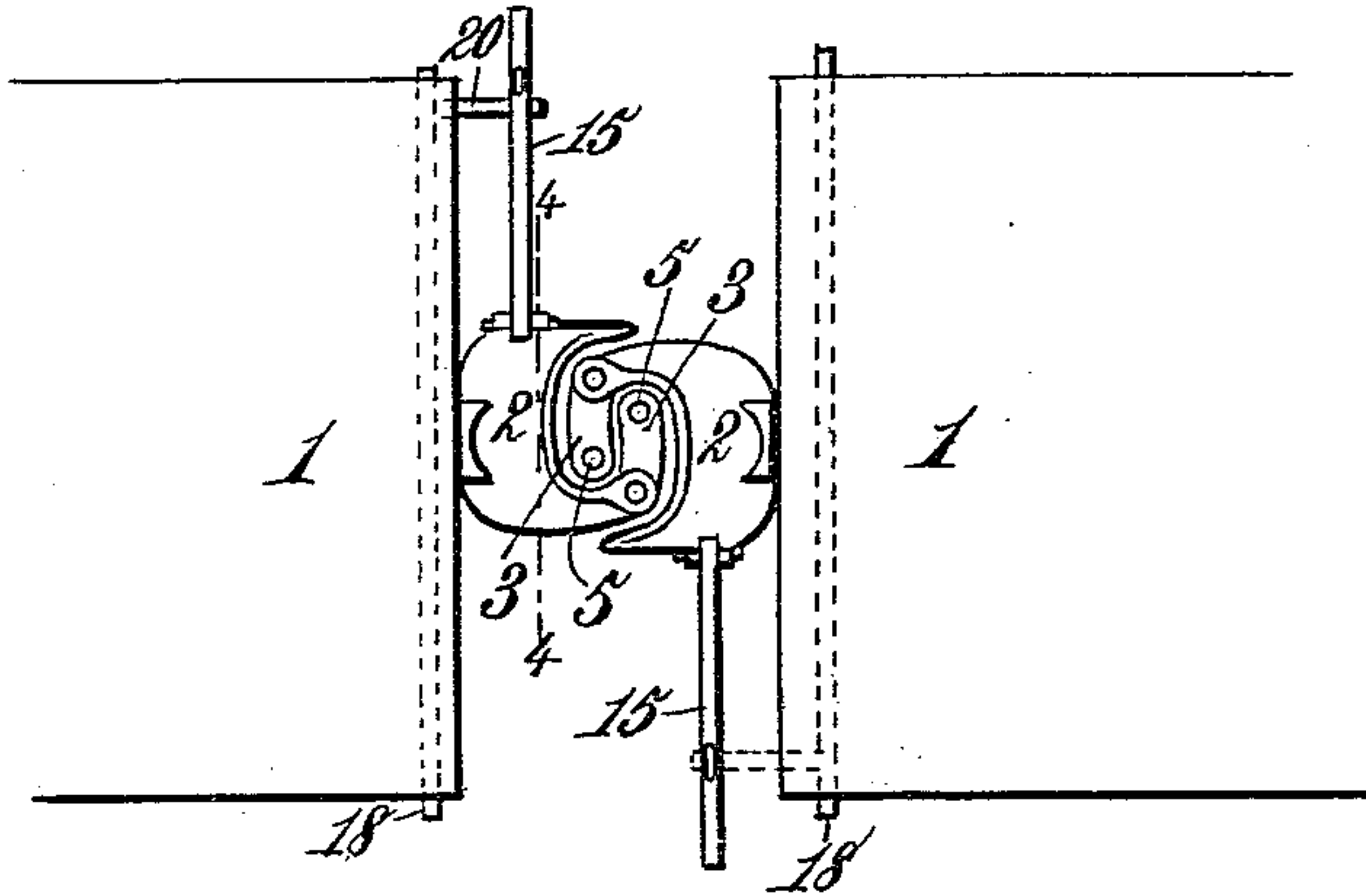


Fig. 2.

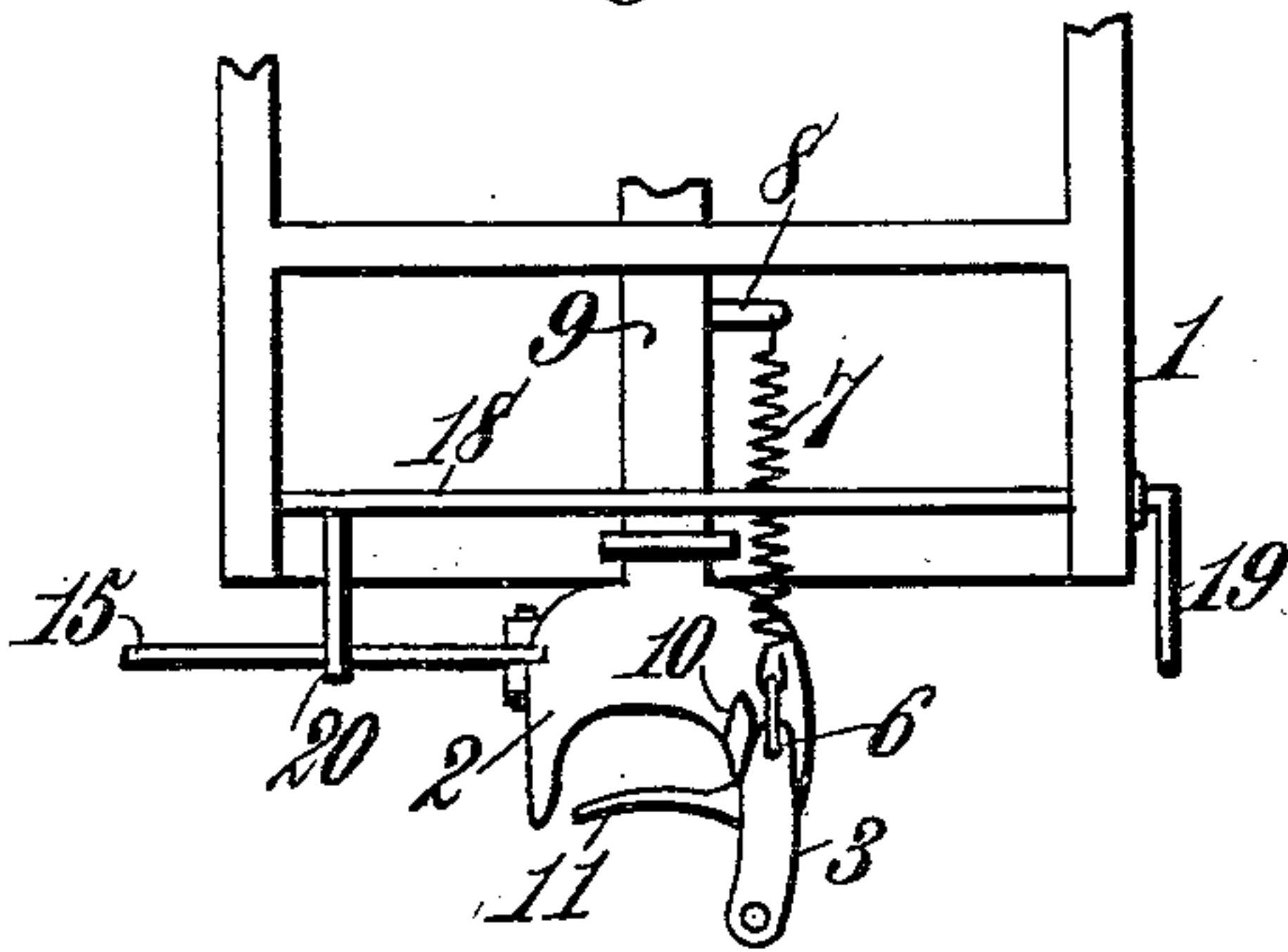


Fig. 3.

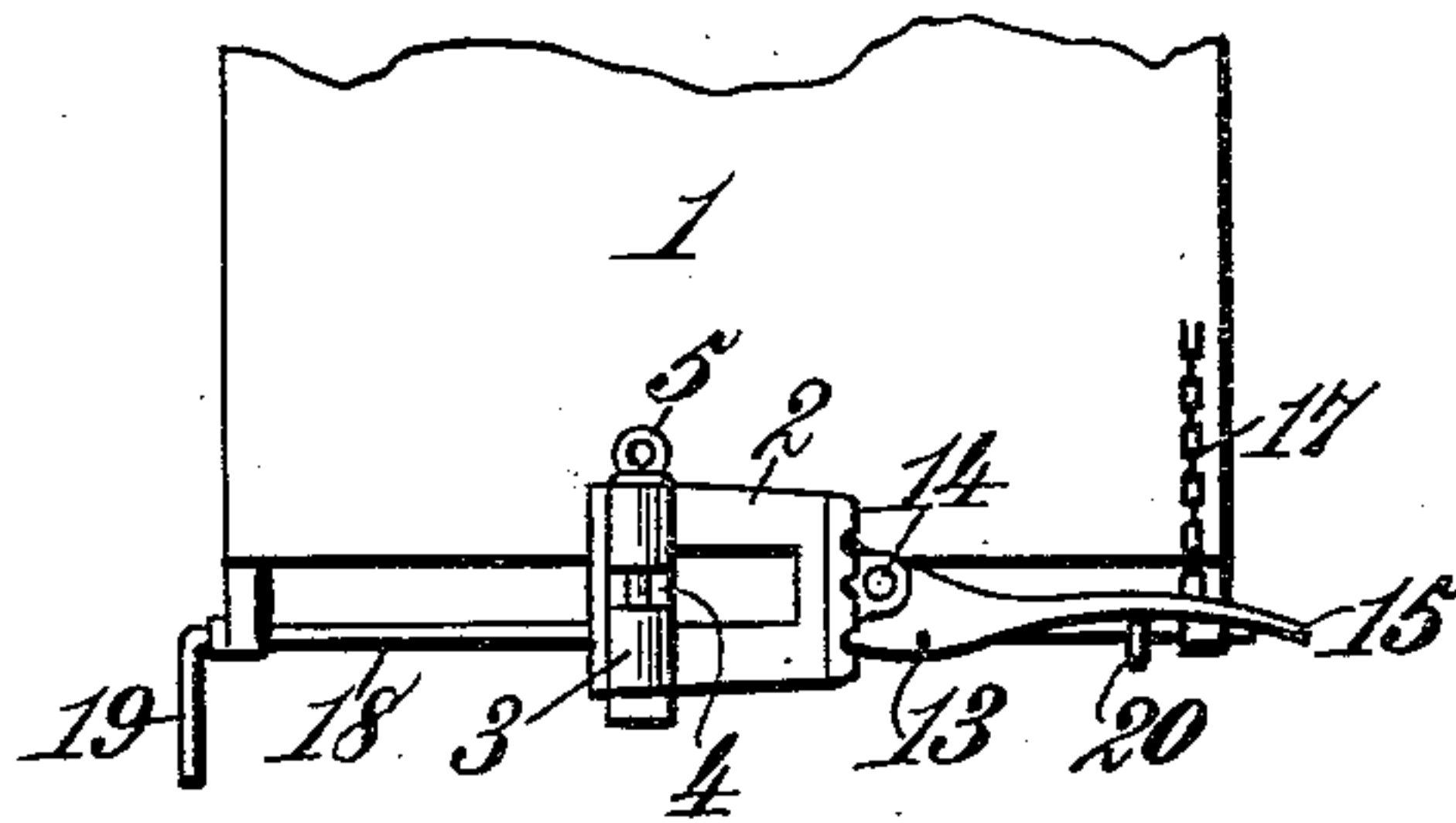


Fig. 4.

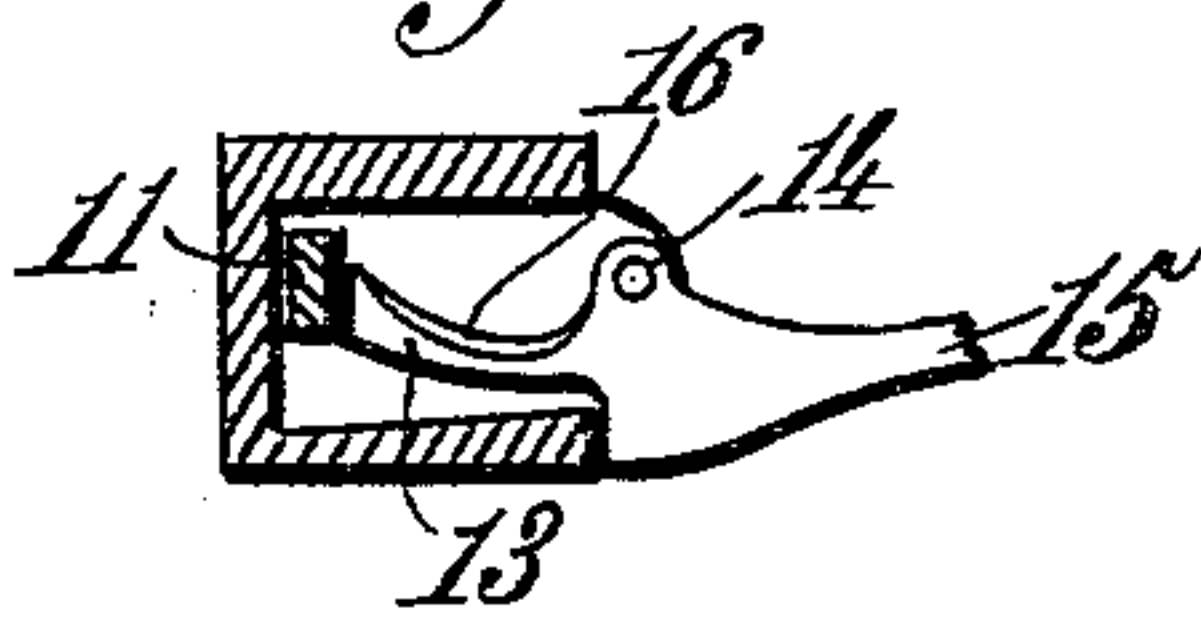


Fig. 5.

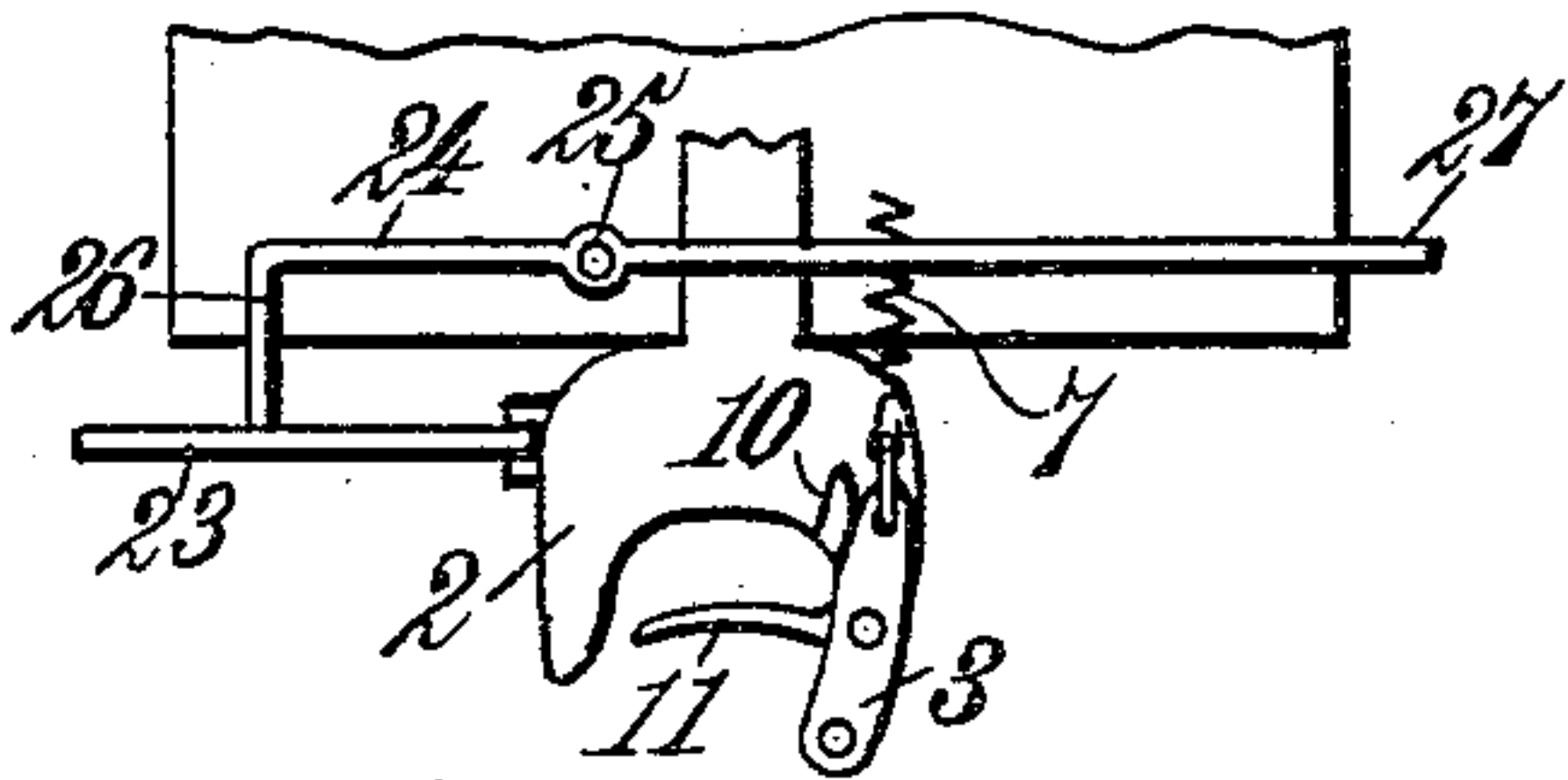
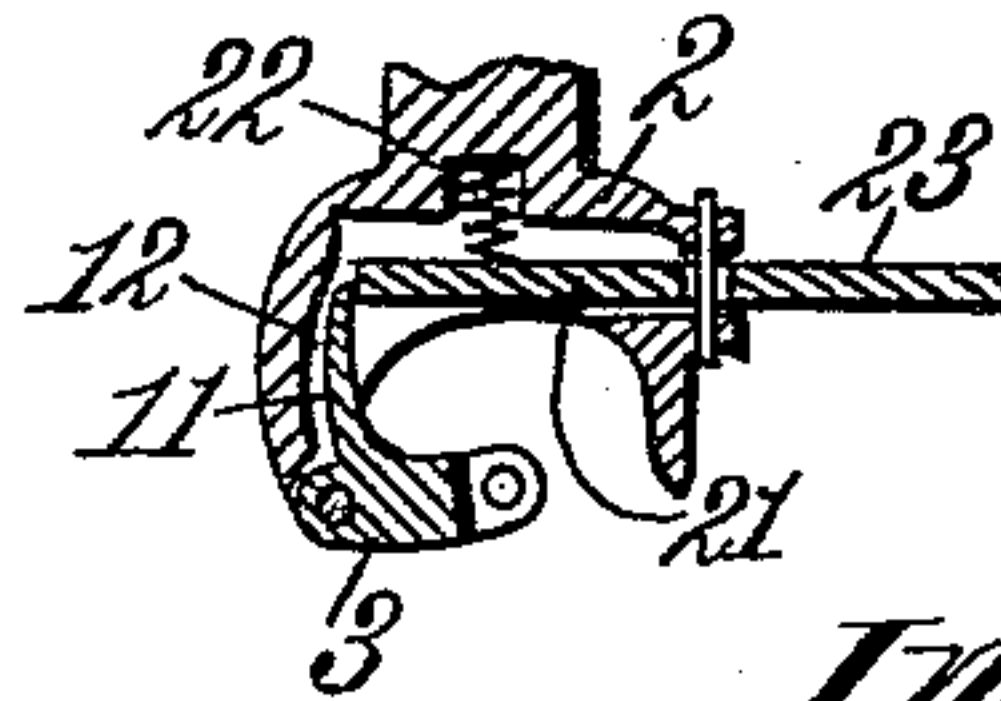


Fig. 6.



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UNITED STATES PATENT OFFICE.

JEREMIE LESSARD, OF COHOES, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 555,384, dated February 25, 1896.

Application filed December 26, 1895. Serial No. 573,354. (No model.)

To all whom it may concern:

Be it known that I, JEREMIE LESSARD, a citizen of the United States, residing at Cohoes, in the county of Albany and State of New York, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to a car-coupling adapted to automatically couple when the cars come together and capable of being uncoupled either from the ground or from the car.

The invention consists in the features of construction and combination of parts in a car-coupling, as hereinafter described and claimed.

In the annexed drawings, illustrating my improvements, Figure 1 is a top view showing the ends of two cars coupled. Fig. 2 is an under plan view showing the coupling open. Fig. 3 is an end elevation of a portion of a car-body fitted with the coupling. Fig. 4 is a vertical transverse section on the line 4 4 of Fig. 1. Fig. 5 is an under plan view showing a modification of the mechanism for controlling the locking and the uncoupling of the coupling-knuckles. Fig. 6 is a horizontal section of the same in locked position.

The coupling to which my improvements relate is of the class sometimes designated as a "twin-jaw coupler."

Referring to the drawings, the numeral 1 designates a portion of the body or framework of a car. The jaw-shaped draw-head 2 has hinged to one side of its outer portion a coupling-knuckle 3, the outer end of which is vertically perforated and provided with a recess 4 and pin 5, so as to enable a car fitted with this coupling to be coupled to a car having the ordinary pin-and-link coupling.

In order to hold the pivoted coupling-knuckle 3 in an open position, ready for coupling with the draw-head of an approaching car, there is formed on the lower rear portion of each knuckle 3 a lug 6, which occupies a rearwardly-projecting position when the knuckle is opened or turned outward. To this lug 6 is secured one end of a spring 7, the other end of which is fastened to a projection 8 on the outside of the draw-bar 9 beneath the car. On the under side of the jaw 2, and integral therewith, is a stop 10, against which the lug

6 abuts when the knuckle 3 is in its open position.

A finger 11 is formed integrally with and projects at right angles from the inner side of the knuckle 3 and is preferably somewhat curved, as shown. When the knuckle 3 is open, this finger 11 projects across the face of the jaw 2, so that when the knuckle of another draw-head meets it the finger 11 will be forced rearward and laterally into a recess 12, formed in the back and inner side of the coupling-jaw, thereby swinging the knuckle 3 inward and into engagement with the knuckle of the other draw-head. In this position of the knuckle the finger 11 may be held or locked by a latch 13, Fig. 4, adapted to have a vertically-swinging movement across the rear of the draw-head jaw. This latch 13 is pivoted at 14, Figs. 3 and 4, and is integral with a lever 15, extended to one side of the car. The lever 15 being heavier than the latch 13, the latter is held up by the force of gravity acting on the lever, and thus the inner end of the latch is caused to interlock with the finger 11 automatically when the finger and knuckle are swung inward. The top of the latch 13 is formed with a curved or inclined face 16, Fig. 4, which is engaged by the finger 11 as it is being pressed back in the act of coupling the cars, which allows the said finger to depress and pass over the said latch, after which the lever 15 drops, thereby raising the latch so that its inner end will assume a locking engagement with the finger and keep the knuckle 3 in closed position.

By raising the lever 15 the latch 13 will be depressed to release the finger 11, and the spring 7 will then act to throw the knuckle 3 open or outward and effect the uncoupling of the cars. The lever 15 can be readily operated from the ground, at the side of the car, without risk of injury to the operator.

There may be attached to the lever 15 a rod or chain 17 reaching to the top of the car, or above the platform, so that the lever 15 may be operated therefrom.

Under the draw-bar and transversely to the car is journaled a rock-shaft 18 having a handle 19 on that side of the car which is opposite to the lever 15 and provided also with an arm 20 adapted, when the shaft 18 is rocked in the proper direction, to lift the lever 15,

and so uncouple the cars. This rock-shaft 18 with its handle 19 and arm 20 enables the coupling to be operated from the ground at either side of the car, on one side by the handle 19 and on the other side by the lever 15, directly.

A modification of the mechanism for controlling the locking and uncoupling of the knuckles is shown in Figs. 5 and 6. In this case a latch 21 is arranged to be swung horizontally against the pressure of a spring 22 adapted to hold the latch in normal locking engagement with the finger 11 of a knuckle 3 when the latter is turned rearward. A lever 23 is formed integral with the latch 21 and reaches to one side of the car. Another lever 24 is pivoted at 25 beneath the car and has at one end a forwardly-projecting arm 26 adapted to bear against the lever 23 and force it forward to compress the spring 22 and release the finger 11 of the knuckle 3, whereupon the latter will be thrown outward by action of the spring 7 to uncouple the cars, as before. The handle 27 of the lever 24 is extended to one side of the car opposite the lever 23, and thus the coupling can be controlled from either side.

What I claim as my invention is—

1. in a car-coupling of the twin-jaw type,
30 the combination of the draw-head jaw pro-

vided with the hinged coupling-knuckle having a finger on its inner side and a lug on the under side of its rear end, a spring having one end secured to said lug and its other end to the draw-bar, a stop on the draw-head jaw 35 to engage said lug, a latch adapted to have a locking engagement with the knuckle-finger, and a latch-lever extended to the side of the car, substantially as described.

2. In a car-coupling of the twin-jaw type, 40 the combination of the draw-head jaw having a recess formed in its back and one side wall, the hinged coupling-knuckle having on its inner side a finger adapted to enter said recess as the knuckle is swung rearward, a vertically-swinging latch to engage and lock back 45 the said finger and provided with a lever extended to the side of the car, an upward-extended chain or rod connected with said lever, and a rock-shaft provided at one end with 50 a handle and having an arm adapted to engage with the latch-lever, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 55

JEREMIE LESSARD.

Witnesses:

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JOHN PROVOST.