

No. 615,925.

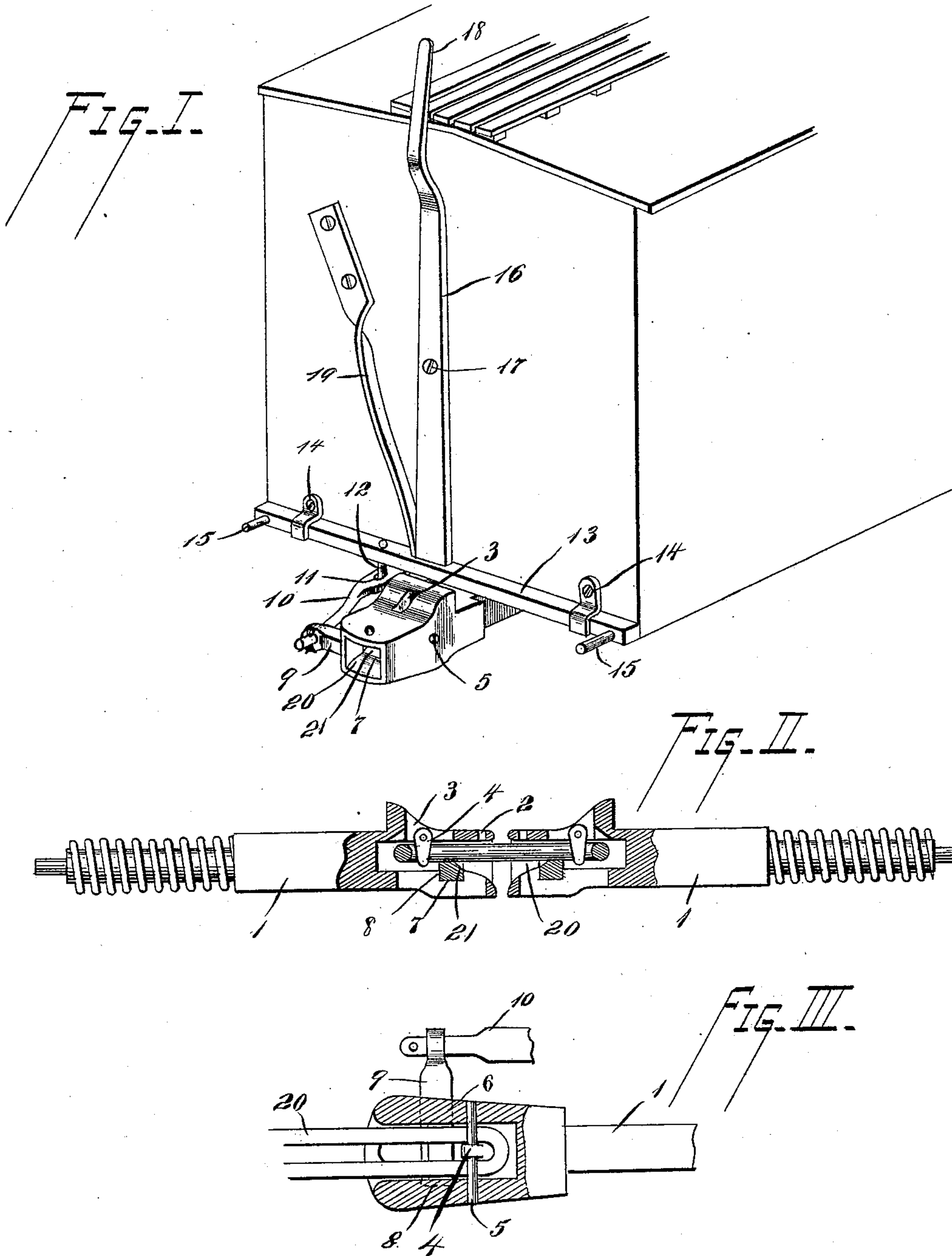
Patented Dec. 13, 1898.

G. C. THOMPSON.

CAR COUPLING.

(Application filed Aug. 31, 1897.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

GEORGE C. THOMPSON, OF SAN ANTONIO, TEXAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 615,925, dated December 13, 1898.

Application filed August 31, 1897. Serial No. 650,140. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE C. THOMPSON, of San Antonio, in the county of Bexar and State of Texas, have invented certain new and useful Improvements in Car-Couplings; and I 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.

This invention relates to car-couplers; and it consists, essentially, of a draw-head having a gravitating dog and a sliding latch, the said dog engaging a coupling-link and resting against the latch to prevent accidental disengagement of the link from the draw-head until the latch is operated by a sliding bar adjustable from either side of the car or by means of a lever from the top of a box-car.

The invention further consists of the details of construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

The object of the invention is to provide means for conveniently coupling cars without requiring trainmen or operators to pass between two cars, thereby preventing accidents and loss of life, and also facilitating said operation by means which are simple and effective in their construction, strong and durable, easily and readily applied to cars now in use, and comparatively inexpensive in the cost of manufacture.

In the accompanying drawings, Figure 1 is a perspective view of a portion of the end of a car, showing the improved coupling attached thereto and means for operating the same. Fig. 2 is a central longitudinal section of two draw-heads embodying the invention and showing a coupling-link in connection therewith. Fig. 3 is a top plan view of a draw-head, showing the top thereof removed and in connected position therein.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numeral 1 designates a draw-head having a suitable draw-bar, which is attached to a car, and it will be understood that the coupling may be applied either to a box or platform car and, if desired, to passenger-coaches; but it is more particularly intended for use on freight-cars.

The front portion of the draw-head, at the mouth of the link-orifice therein, is provided with alined openings 2 for the reception of the coupling-pin for use in cases of emergency and when the coupling devices hereinafter set forth may have become disarranged or broken by accidents or from other causes. The upper portion of the draw-head is longitudinally slotted, as at 3, and in a portion of the said slot is movably mounted the upper end of a gravitating dog 4, freely supported by a pivot-bolt or cross-rod 5. An opening 6 is formed in the lower portion of one side of the front part of the draw-head, which alines with a transverse groove 7 in the bottom of said draw-head and also with a recess 8 in the opposite wall, and engaging the said opening 6, groove 7, and recess 8 is a sliding latch 9, to the outer end of which is connected the front end of a longitudinally-disposed lever 10, having a slot 11 therein, through which loosely depends an operating-pin 12, projecting from a slide-bar 13, mounted in loop-bearings 14, attached to the adjacent end of the car. The slide-bar 13 has outwardly-extending grips or handles 15 on opposite ends thereof, and has also connected thereto an operating-lever 16, movably attached to the center and extending upwardly over the end of the car, as shown, being fulcrumed at 17 and the outer end bent and reduced to provide a handle 18. The said lever 16 has a spring 19 bearing thereagainst and, as shown, is of flat form and slightly arranged at an angle; but it will be understood that the said spring may have substituted therefor an equivalent form of such device without departing from the intention of the invention.

The draw-head will of course be supplied with cushioning devices well known to the art and is intended for use with a link 20, and to accommodate the entrance of the link into the draw-head 1 the front edge of the latch 9 is beveled, as at 21, to permit the end of the link to ride upwardly thereover without obstruction.

In operation the link enters the link-orifice in the draw-head and passes upwardly over the beveled front edge 21 of the latch 9 and strikes the dog 4, lifting the latter upwardly until the lower end thereof is passed, when the said dog drops back into a vertical posi-



tion and through the slot of the link. The link then bears against the rear edge of the dog and forces said dog against the rear edge of the latch, thereby preventing the said link from becoming detached from the draw-head. The said link will be held by the draw-head carrying the same in such position that it will enter the link-orifice of the companion draw-head without being arranged for this purpose and will become automatically connected in the manner just described. When it is desired to disconnect the link from the draw-head, the slide-bar 13 is operated either by the grips or handles 15 or the lever 16 to throw the latch 9 outwardly from the said draw-head and permit the link to be drawn out, it being understood that no obstruction to this operation under these conditions will be offered, owing to the fact that the dog freely swings on its support. This simple operation provides convenient means for coupling and uncoupling cars in making up trains or when it is desired to make a flying switch, and, furthermore, it is intended that the bar 13, with the grips or handles 15, may be used alone without the operating-lever 16, or the operating-lever 16 may be used without the grips or handles; but it is preferred that they be used together, especially when the improved coupler is applied to box-cars.

From the foregoing it will be seen that the ordinary draw-head can be quickly arranged to accommodate the improved coupler, requiring only the formation of the slots 3 and 6, the groove 7, and the recess 8. By the formation of the groove 7 a strong resistance is offered to the tension exerted against the dog and through the dog against the latch by the link, and breakage of the several parts is thereby prevented, as well as accidental uncoupling.

It is obviously apparent that many minor changes in the details of construction and arrangement of the several parts might be made

and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. In a car-coupling, the combination with the draw-head and its swinging pin, of the transversely-positioned sliding latch projecting laterally of the said draw-head at one side, a lever-arm connected to the laterally-projecting portion of the said latch and extending back toward the end of the car, a transverse endwise-movable slide-bar mounted upon the end of the car and having a depending pin which engages a slot of the said lever-arm, said slide-bar having grips or handles at its end portions, and a spring-actuated lever fulcrumed to the end of the car and connected to the said slide-bar, substantially as specified.

2. In a car-coupling, the combination of a draw-head having a slot in the upper portion thereof, a gravitating dog having its upper portion movably mounted in said slot, said draw-head also having an opening at one side near the front alining with a bottom groove, and a recess in the opposite wall, a latch with a front beveled edge movably mounted in said groove and said slot in the side of the draw-head, a lever having its front end attached to the outer end of the said latch and provided with a slot, a slide-bar with a depending pin movable through the slot in the lever, grips or handles on the opposite ends of said slide-bar, and a spring-actuated lever movably attached to the center of said slide-bar, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE C. THOMPSON.

Witnesses:

JAMES M. MYERS,

FRANCIS B. GARTRELL.