

(No Model.)

J. A. M. THOMPSON.
CAR COUPLING.

No. 449,014.

Patented Mar. 24, 1891.

Fig. I.

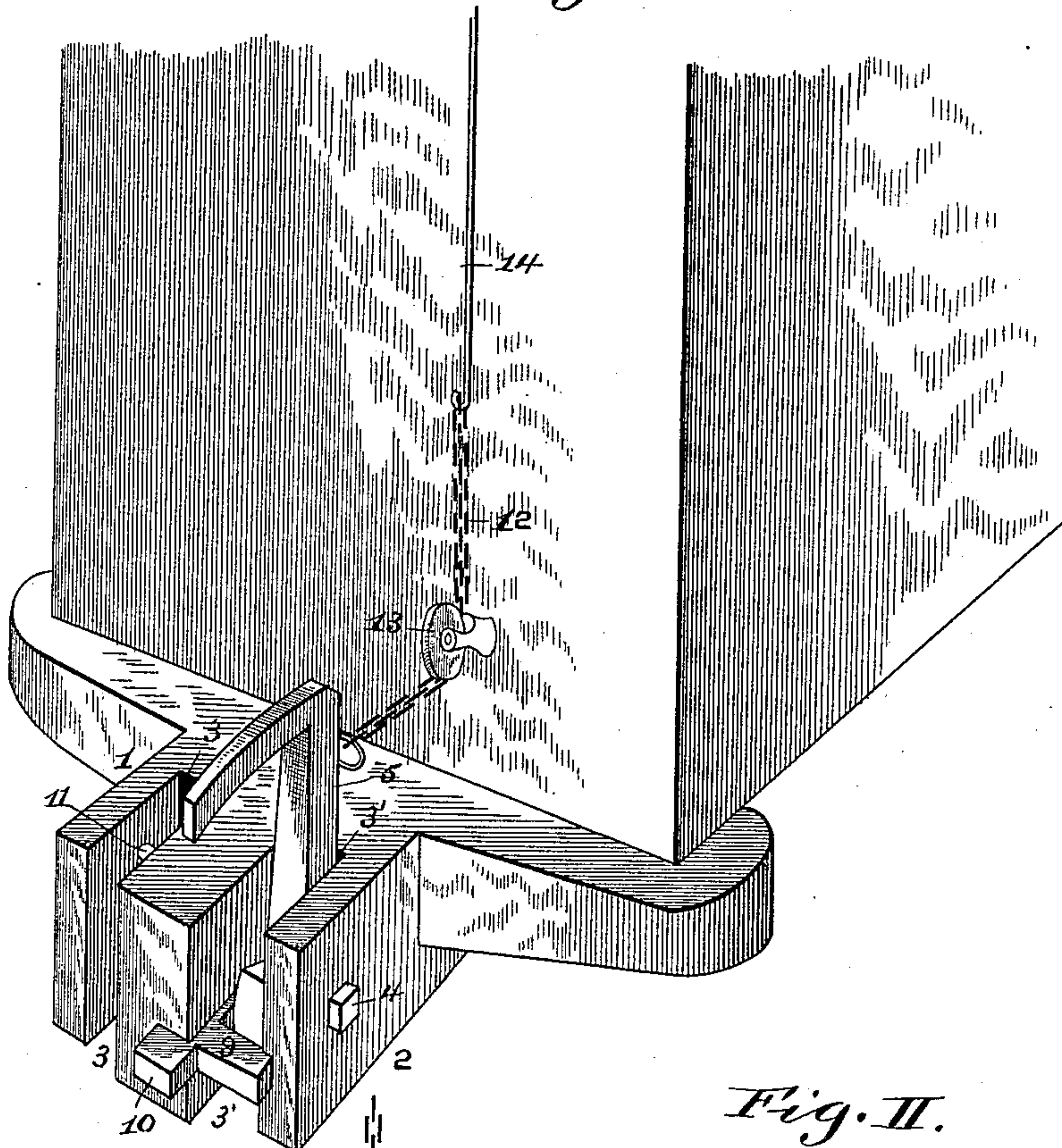


Fig. II.

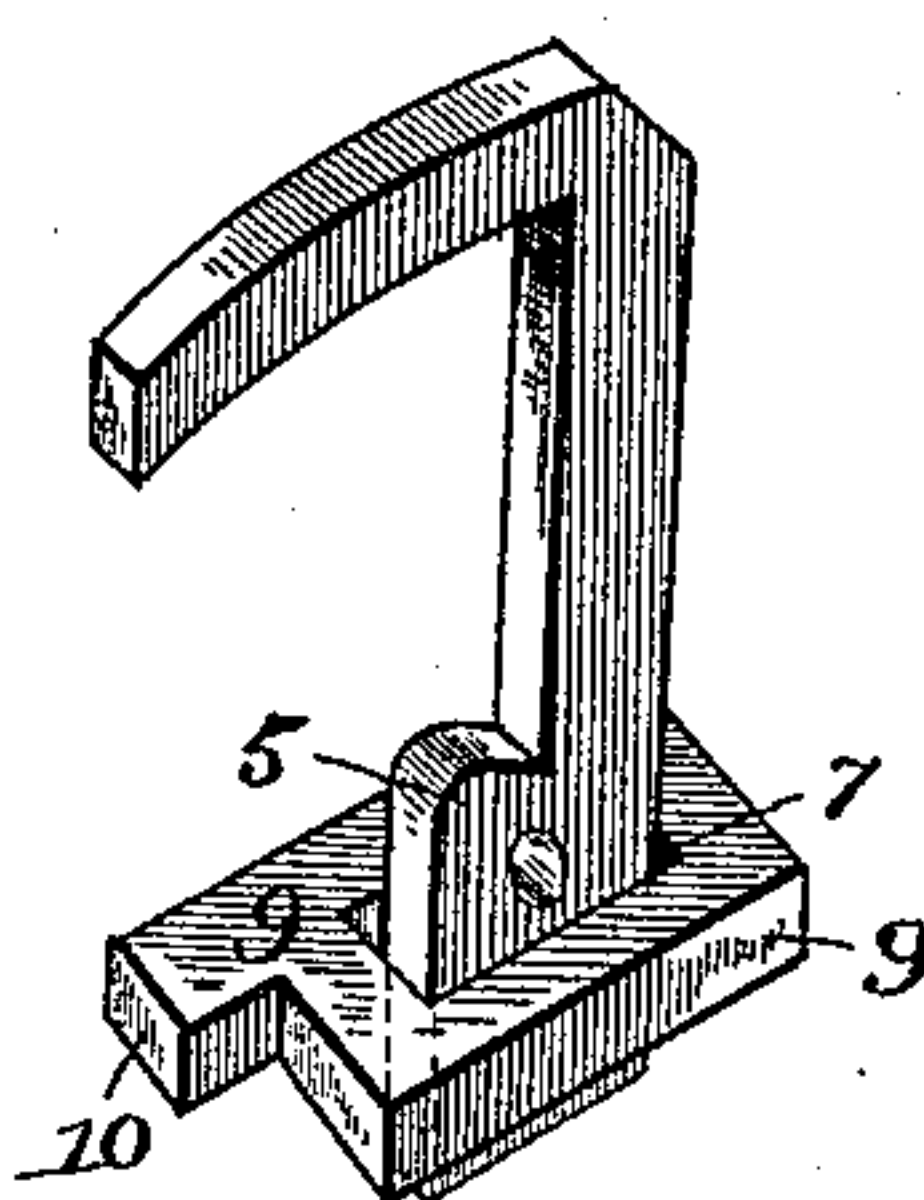
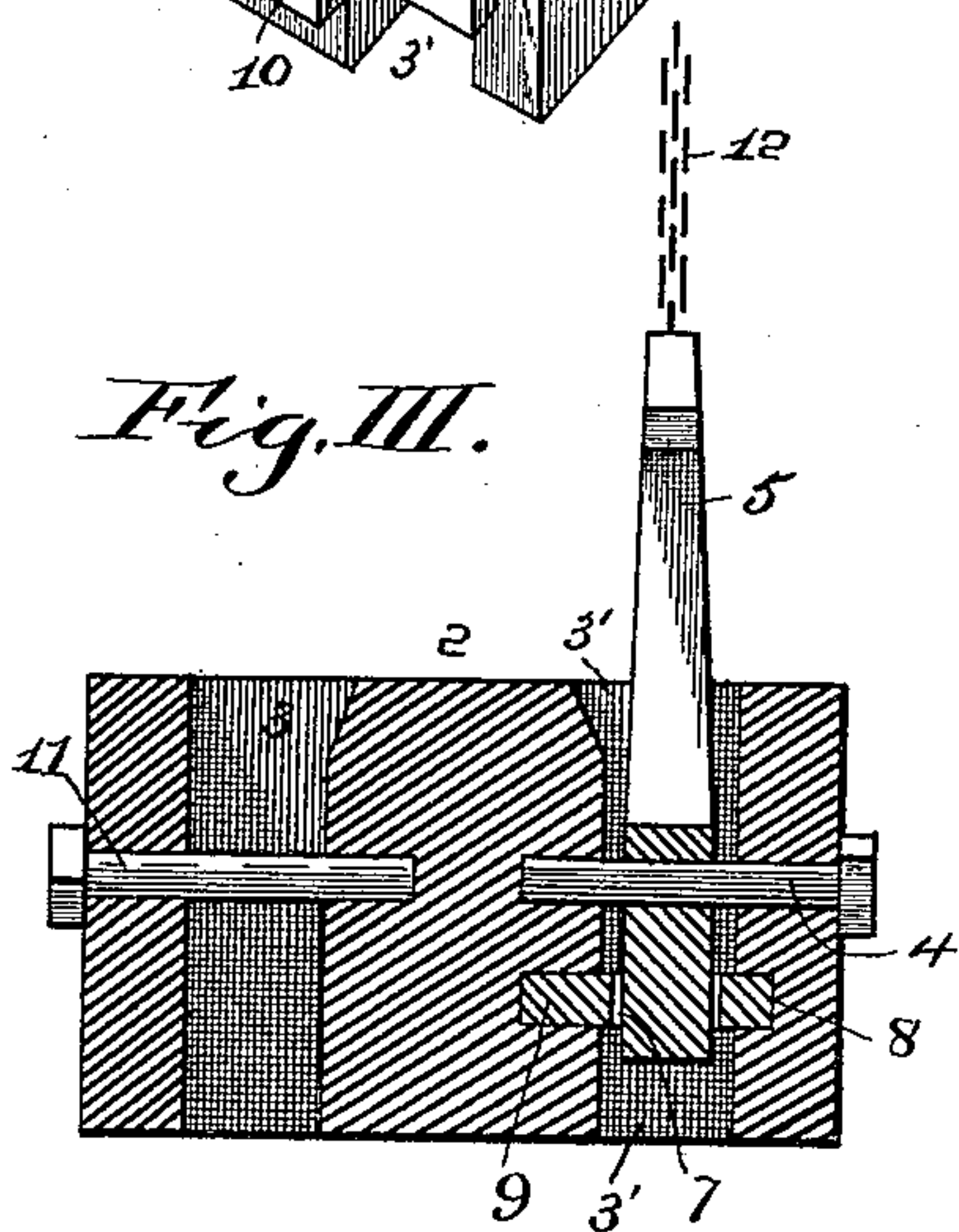


Fig. III.



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UNITED STATES PATENT OFFICE.

JAMES A. M. THOMPSON, OF SAN ANTONIO, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 449,014, dated March 24, 1891.

Application filed August 6, 1890. Serial No. 361,207. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. M. THOMPSON, a citizen of the United States, and a resident 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.

My invention relates to improvements in car-couplings, and has for its object to provide a simple, safe, and automatic coupling which will only require the services of a brakeman to uncouple the same.

A further object of my invention is to provide a coupler which will without any adjustment couple two cars whose draw-heads are of different heights.

With these ends in view my invention consists in the combination of devices and peculiar arrangement of parts, as will be fully pointed out and claimed hereinafter.

In order that others may understand my invention, I have illustrated the same in the accompanying drawings, forming a part of this application, in which—

Figure I is a perspective view of a coupler embodying my invention, showing the parts in position to couple two cars. Fig. II is a detail view of the operating-slide and coupling-hook. Fig. III is a transverse sectional view on the line *x x* of Fig. I.

Like numerals of reference denote corresponding parts in all the figures of the drawings, referring to which—

1 designates the draw-head of my improved coupler, which consists of a solid casting 2, provided with two parallel longitudinal slots 3 3'. Within the slot 3' is pivotally connected by means of a pivotal rod 4 one end of a coupling-hook 5. This hook 5 is preferably provided with an enlarged rear end, through which the pivotal rod 4 passes, and which, when the hook is raised, as shown in Fig. I, rests within an aperture 7, formed in a slide 9. This slide 9 is guided in suitable grooves 8, formed or cut in the walls of the slot 3'. The slide 9 is provided at one side with an extension 10, which, when the hook is raised, extends beyond the vertical plane of the front of the draw-head, so as to contact with the

face of the central solid portion of a similar draw-head on another car when the cars are brought together for the purpose of being coupled. Across the slot 3 of the draw-head is secured a rod 11, which may either be a continuation of the rod 4 or may be a separate rod. Over this rod 11 the hook 5 of another coupling is adapted to take, so as to couple the cars securely together. To the upper surface and near the forward end of the hook 5 is attached by a bail, ring, or any other suitable means one end of a chain or cable 12, which extends rearwardly, and after passing around a pulley 13, suitably journaled on the end of the car, is attached to one end of a rod 14, which extends to the top of the car, where it is provided with a suitable handle for elevating the same, and thereby raising the hook, so as to uncouple the cars and to put the several parts into position for coupling.

The operation of my invention is simple, and may be briefly stated as follows: When it is desired to couple two cars, it is only necessary to have the coupling-hooks in an elevated position. When the cars come together, the extensions 10 of the slides 9 come in contact with the face of the central solid portions of the draw-heads, and the slides are thereby forced back in the grooves 8 in the sides of the slots 3'. This rearward movement of the slides forces the enlarged rear ends of the coupling-hooks, which ends fit loosely within the apertures 7 in said slides, rearwardly, and as the same are pivoted within the slots 3' the hooks descend and take over the rods 11 in the draw-heads of the cars, whereby the cars are securely and safely locked without the brakeman incurring any risk of personal injury and without his presence or assistance. To uncouple the cars the rod 14 is raised, and by means of the chain or cable 12 the forward end of the coupling-hook is raised, so as to release the hooks from the bars 11 and allow the cars to separate. The downward and forward movement of the enlarged rear ends of the coupling hooks forces the slides 9 forward, so as to be ready to automatically effect another coupling in the manner described when desired.

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

1. In a car-coupling, the combination of a draw-head provided with two slots which open through the front thereof, a hook pivotally secured in one of the slots, a transverse bar secured across the other slot in rear of the forward open end thereof, and a slide having a portion of its forward end extending beyond the face of the draw-head, said slide being fitted within suitable grooves in the side walls of one of the slots and engaging with the rear end of the coupling-hook, as and for the purpose set forth.

2. In a car-coupler, the draw-head having the longitudinal slots, the transverse pivotal

bar in one of said slots, and the parallel grooves below said pivotal bar, in combination with a slotted slide fitted in said grooves and having an extension at its forward end, and the coupling-hook fitted on the pivotal bar and engaging with the slotted slide, as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. M. THOMPSON.

Witnesses:

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J. C. CAIE.