

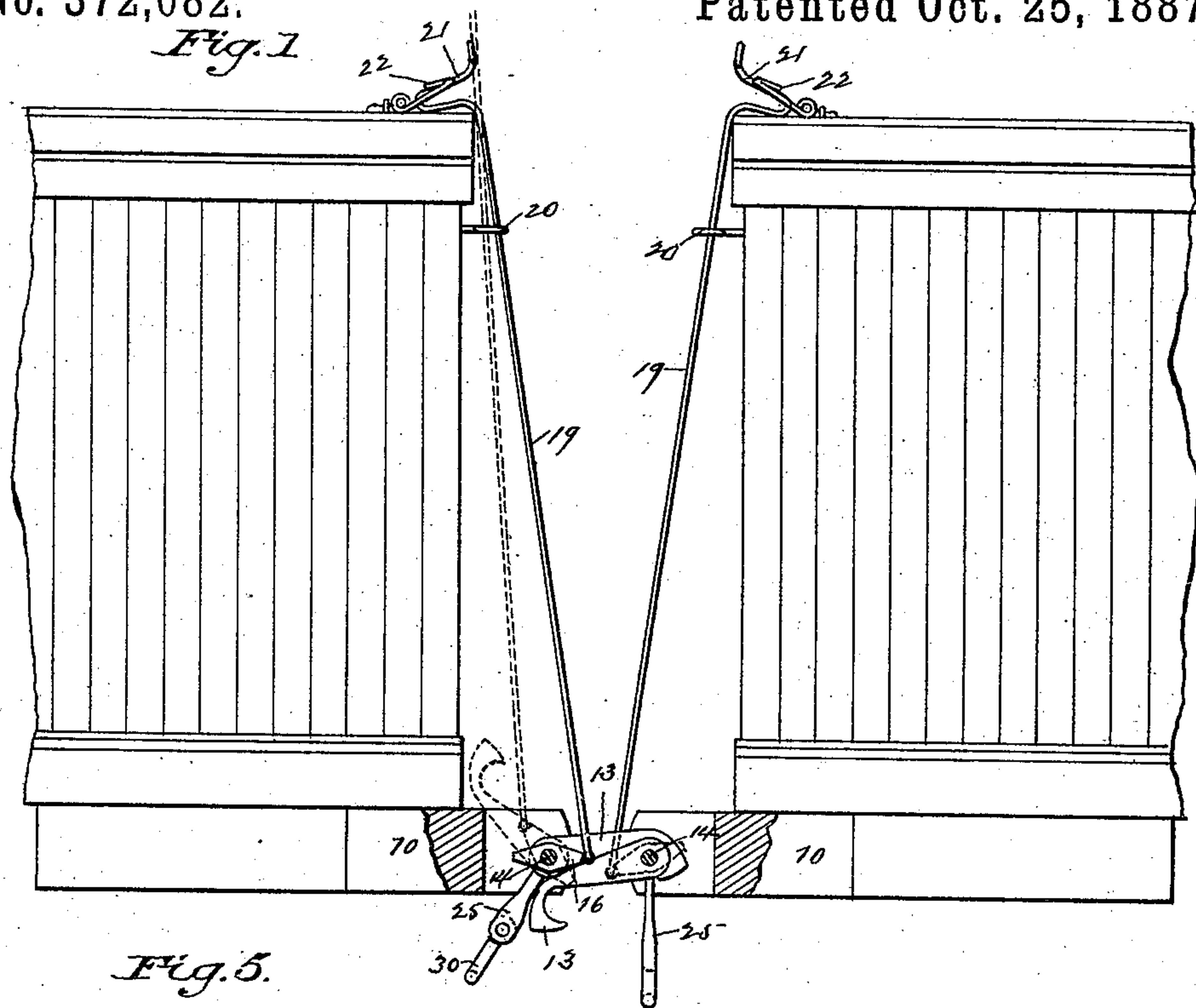
(No Model.)

T. B. NUTTING.

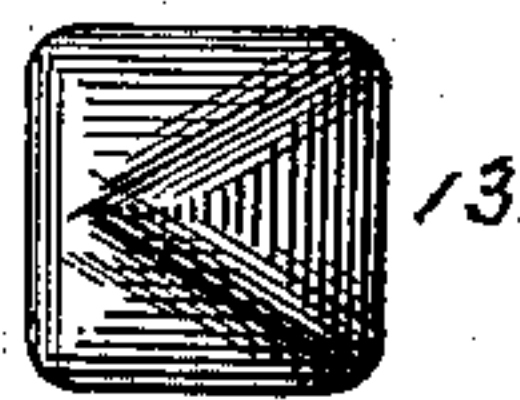
CAR COUPLING.

No. 372,082.

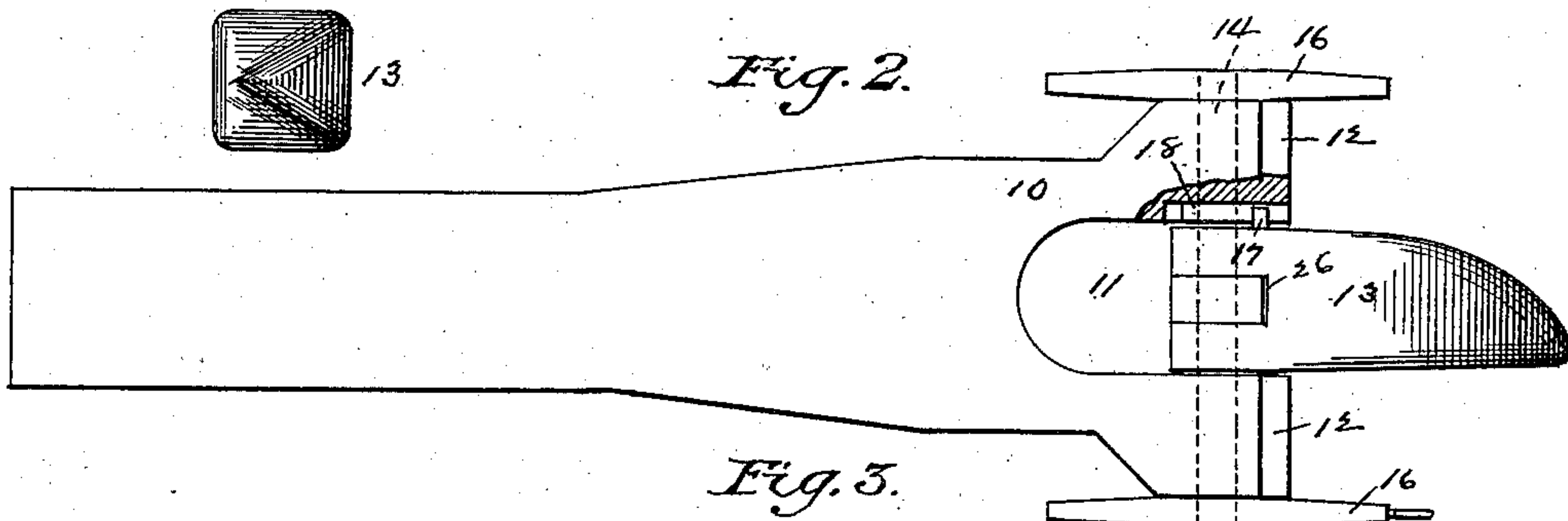
Patented Oct. 25, 1887.



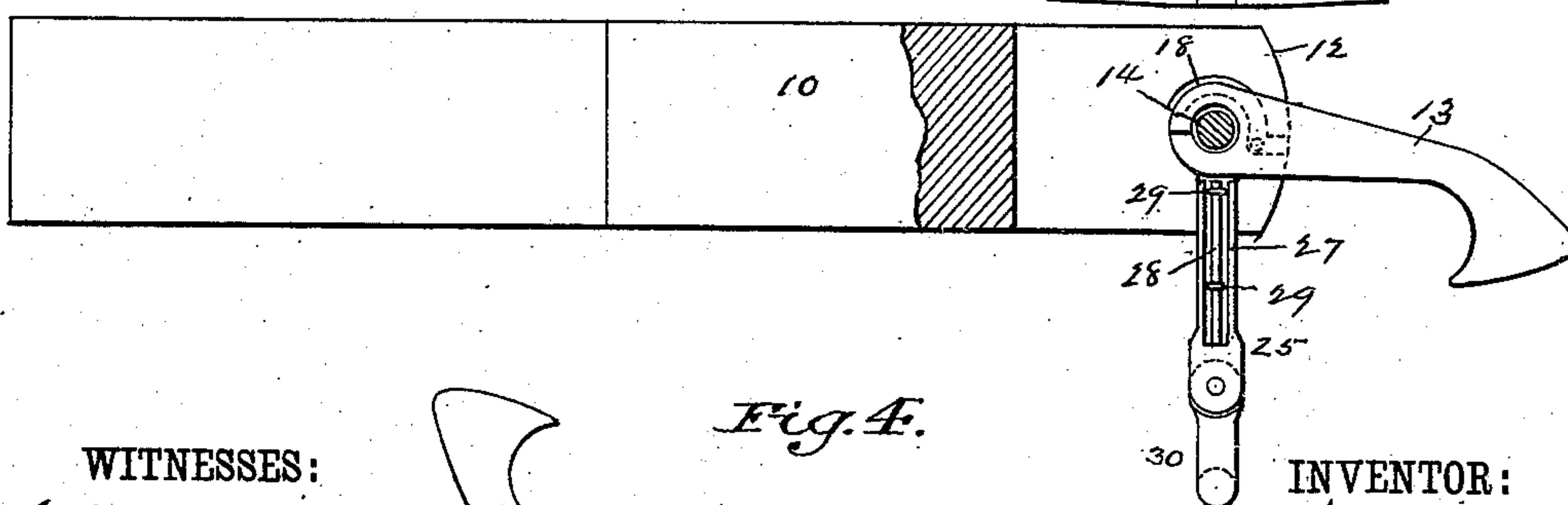
*Fig. 5.*



*Fig. 2.*



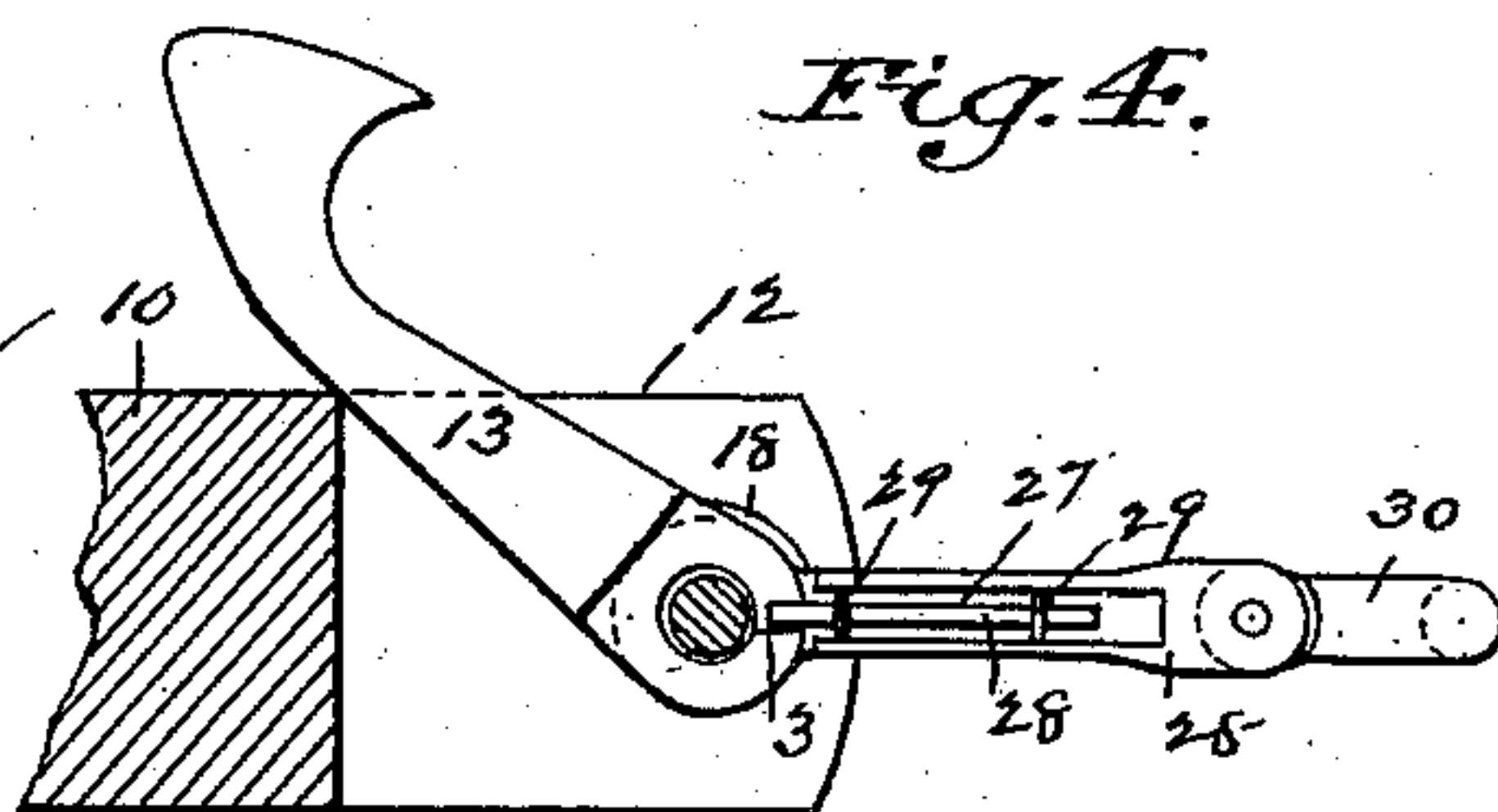
*Fig. 3.*



*Fig. 4.*

WITNESSES:

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# UNITED STATES PATENT OFFICE.

THOMAS B. NUTTING, OF MORRISTOWN, NEW JERSEY, ASSIGNOR TO HIMSELF  
AND THOMAS B. NUTTING, JR., OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 372,082, dated October 25, 1887.

Application filed April 29, 1887. Serial No. 236,568. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS B. NUTTING, of Morristown, in the county of Morris and State of New Jersey, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

This invention relates to an automatic car-coupler, the object of the invention being to provide a coupler which will act to couple automatically when carried by cars of the same or different heights, and one which may be operated from the top or from the sides of the car, the parts being so arranged that the coupler will couple with the ordinary form of link-and-pin coupling, as will be hereinafter more fully explained, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side view of portions of two cars, representing the same as they appear when provided with my improved form of coupling, the draw-heads being shown in partial section, in order that the construction of the coupling may be more clearly illustrated. Fig. 2 is a plan view of a draw-head provided with my improved form of coupling, parts being broken away. Fig. 3 is a view in partial central section of a draw-head provided with my improved coupling, the coupling-hook being represented as it appears when in a position to couple automatically, or as it would appear when engaged by the coupling-hook of a higher car. Fig. 4 is a view representing the parts as they appear when adjusted to couple with a car provided with the ordinary form of pin-and-link coupling, and Fig. 5 is a view of the forward end of one of the coupling-hooks.

In constructing such a coupling as the one illustrated in the drawings above referred to I provide a draw-head, 10, that is connected to the draw-bar and to the car-body in any of the well-known ways. This draw-head 10 is formed with two forwardly-extending jaws, 12, between which jaws there is a large vertical slot or opening, 11. A coupling-hook, 13, is mounted in the slot 11, said hook being fastened to a pivot pin or bolt, 14, which passes

through an aperture that is formed in the heel of the hook and through apertures that are formed in the jaws 12.

Manipulating arms or levers 16 are connected to each end of the pin or bolt 14, and these arms or levers may be arranged, as represented in the drawings, in close proximity to the draw-head; or the pin or bolt 14 might be extended to points in close proximity to each side of the car, and the arms or levers 16 might be connected to the ends of the pin or bolt, should such pin or bolt be so extended.

From one side of the hook 13 there projects a pin, 17, which rides in a semicircular groove, 18, that is formed in one of the jaws 12, the arrangement being such that the hook, if allowed to drop, will be supported in about the position in which it is shown in Fig. 3, the pin or stop 17, carried by the hook, striking at this time against the lower defining-wall of the groove 18. To one of the levers or arms 16, I connect a rod, 19, which extends above the top of the car, passing through a guide, 20, that is secured to the end of the car-body. At a point near the upper end of this rod 19, I form a bend or projection, 21, that is adapted to be engaged by a spring-keeper, 22, said keeper being secured to the upper end of the car, the arrangement being such that when the projection 21 is forced beneath the keeper 22, as represented in Fig. 1, the hook 13 will be held in a depressed position.

The forward end of the hook 13 is approximately semi-conical, the apex of the point being at one side of the hook. The object of forming the end of the hook as above described is to provide for the riding of one hook above the other as two cars provided with my improved coupling approach, for under such circumstances the coupling-hook that is in the higher vertical plane will ride above the hook that is in the lower vertical plane, will pass over the shank of said hook, and engage with the heel thereof, as is illustrated in Fig. 1, and on account of the uniform inclined ends of the hooks it is impossible for any two hooks to jam. Even on the same vertical plane one hook will always ride above the other.

After the cars have been coupled as described, they may be uncoupled by turning the pin or bolt 14 of the upper hook so as to



move said hook to the position in which it is shown in dotted lines in Fig. 1, and this movement may be brought about by means of the rod 19 or either of the levers 16.

5 In order that cars provided with my improved form of coupling may be coupled with cars having the ordinary form of pin-and-link coupling, I connect a coupling link or bar, 25, to the pin 14, the heel of this link or bar passing within an aperture, 26, that is formed in the heel of the hook 13.

The coupling link or bar 25 is formed with a groove, 27, inside thereof, in which there is loosely mounted a short rod, 28, the arrangement being such that when the hook 13 is turned back to the position in which it is shown in Fig. 4 and the link 25 is turned up to a vertical position the rod 28 will fall downward against the shoulder 3, that is formed in the heel of the hook 13, so that when the link 25 is again turned down to a horizontal position it will be supported in said position, and will consequently enter the draw-head of an approaching car; but in order that the link 25 may be adjusted so as to enter the draw-heads of cars of varying height I prefer to hinge a section, 30, to the end of the link 25, the arrangement being such that this section 30 may be turned upon its hinge connection with the main portion of the link, so that its extending end will be raised or depressed below the plane occupied by the link.

This coupling is not only extremely simple, but is safe and durable.

Having thus fully described my invention, 35 I claim as new and desire to secure by Letters Patent—

1. The combination, with a draw-head formed with a vertical slot, of a hook pivotally mounted within said slot, the extending end 40 of said hook being semi-conical, substantially as described.

2. The car-coupling comprising the slotted draw-head, the pivoted coupling-hook having a pin-and-slot connection with the draw-head, 45 and the coupling-link fulcrumed upon the coupling-hook pivot and carrying a rod engaging a shoulder on the coupling-hook, substantially as and for the purpose set forth.

3. The car-coupling comprising the slotted 50 draw-head, the pivoted coupling-hook having a pin-and-slot connection with the draw-head, and the coupling-link fulcrumed upon the coupling-hook pivot and carrying a rod engaging a shoulder on the coupling-hook, said 55 coupling-link also having a hinged extension or section, substantially as and for the purpose specified.

THOMAS B. NUTTING.

Witnesses:

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