

(No Model.)

R. E. WOODS.

CAR COUPLING.

No. 358,182.

Patented Feb. 22, 1887.

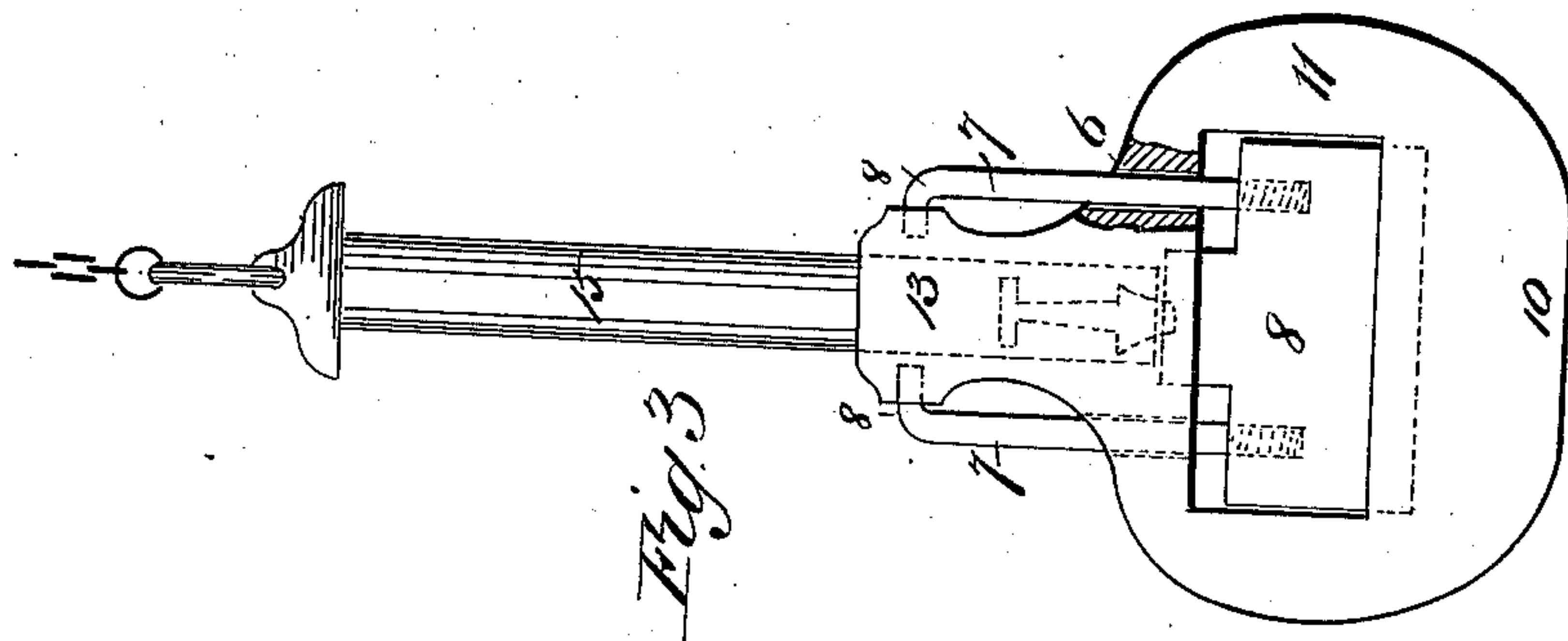


Fig. 3

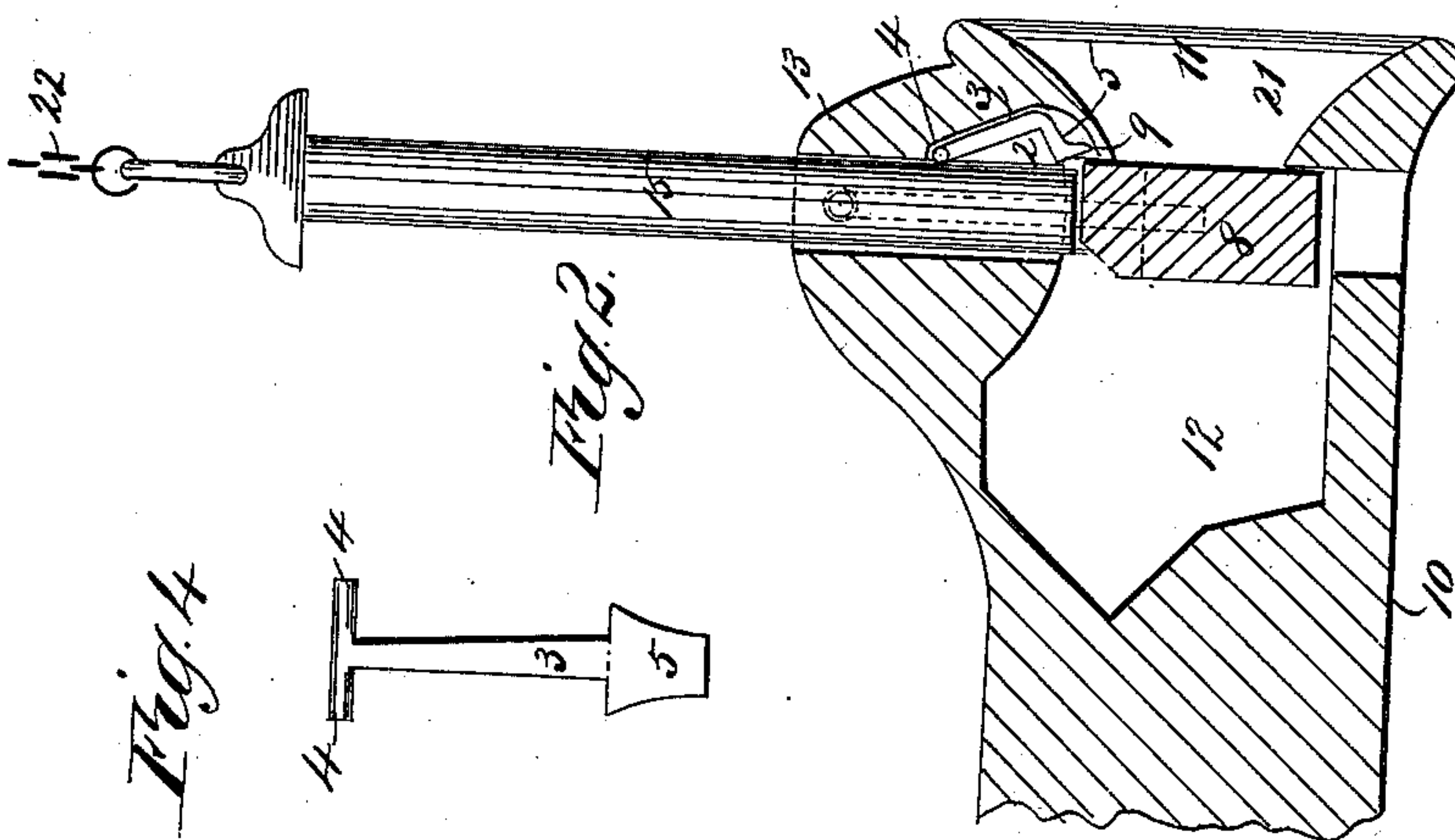


Fig. 2

Fig. 4

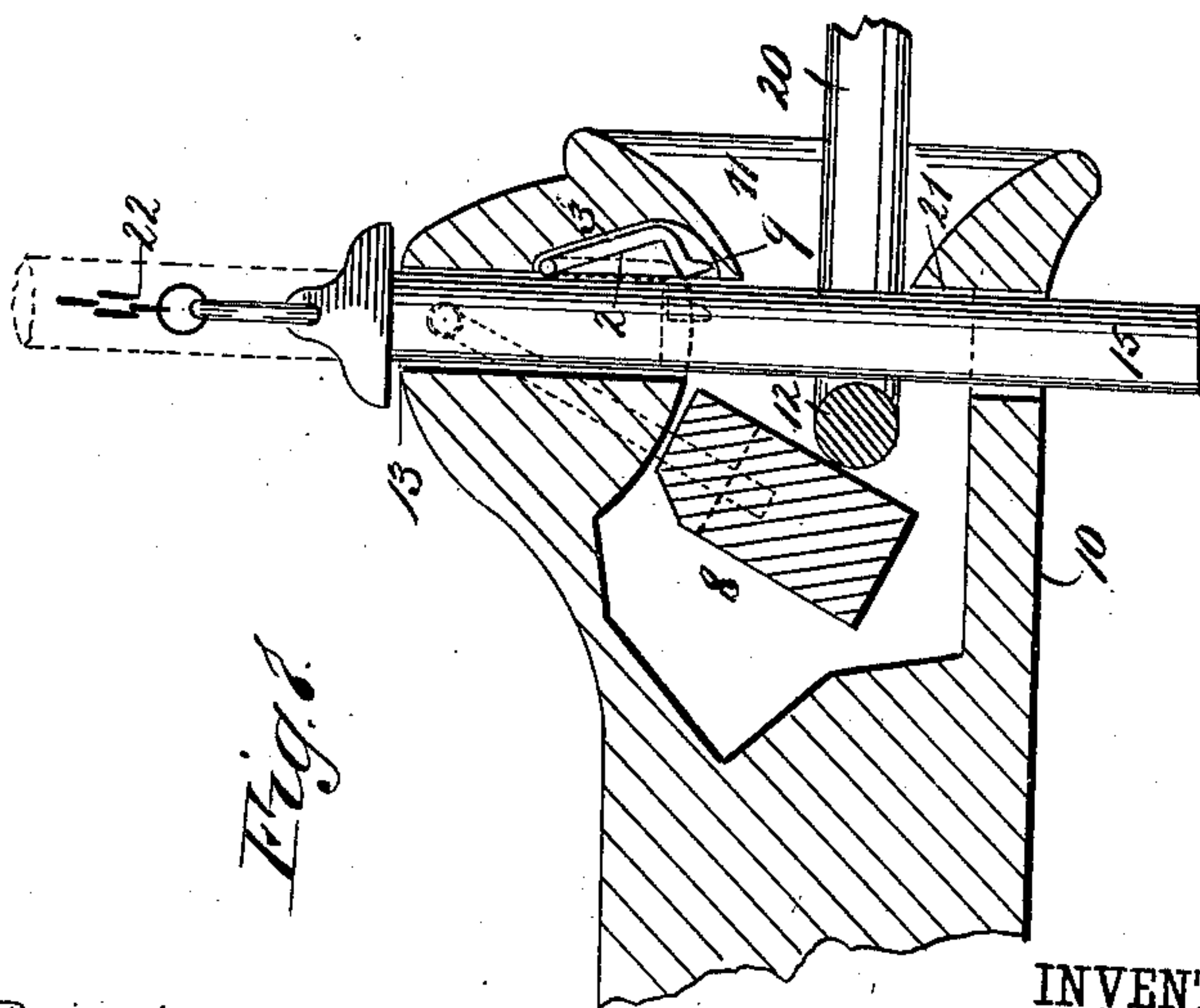


Fig. 1

WITNESSES:

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REUBEN E. WOODS, OF MONTGOMERY, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 358,182, dated February 22, 1887.

Application filed November 16, 1886. Serial No. 219,015. (No model.)

To all whom it may concern:

Be it known that I, REUBEN E. WOODS, of Montgomery, in the county of Le Sueur and State of Minnesota, have invented a new and Improved Car-Coupler, of which the following is a full, clear, and exact description.

This invention relates to car-couplers, the object of the invention being to provide a coupler wherein the parts may be set for automatic coupling, as will be hereinafter described, 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 central longitudinal sectional view of my improved form of car-coupler, the parts being shown as they appear when the coupling-pin is in engagement with the coupling-link. Fig. 2 is a similar view, the parts, however, being shown as they appear when the coupling-pin is raised and set to couple automatically with the link of an approaching car. Fig. 3 is a face view of the draw-head, representing the coupling-pin in its raised position, a portion of one side of the draw-head being broken away; and Fig. 4 is a detailed view illustrating the construction of the gravity-hook employed to support the coupling-pin when it is first raised.

In the drawings, 10 represents the draw-head, which, as usual, is formed with a flaring mouth, 11, and a link-recess, 12. On the upper face of the draw-head there is a boss or projection, 13, that is centrally apertured to receive the coupling-pin 15.

In advance of the coupling-pin aperture there is a recess, 2, in which there is mounted a gravity-hook, 3, said hook being provided with an upper cross-bar, 4, and with a rearwardly-extending point, 5. The bar 4 is mounted in a proper recess formed above the recess 2, and the hook is free to swing to the position in which it is shown in dotted lines in Fig. 1 when the coupling-pin is raised.

Upon either side of the pin aperture or recess there is an elongated slot, 6, said slots being provided in order that the links or arms 7 of a swinging block 8 may pass within the draw-head to engage with said block, the upper ends of said arms being bent over to en-

gage with apertures that are formed in the boss 13, these bent-over ends being shown at 8 in Fig. 3.

The coupling-pin above described, and illustrated in the drawings, may be used in connection with similar coupling, or with any form of coupling employing a link.

In uncoupling the cars the pin 15 is drawn up to the position in which it is shown in dotted lines in Fig. 1, so as to permit the hook 3 to fall forward beneath the lower end of the pin, in which position the pin will be supported until after the coupling-link 20 is withdrawn. Immediately after the link 20 is withdrawn the block 8 will fall downward to the position in which it is shown in Fig. 2, and in falling will strike against the downwardly-extending point 9 of the hook 3, carrying the hook to the position in which it is shown in Fig. 2, so that the pin 15 will fall downward and rest upon the upper face of the block 8, the forward fall of the block being limited by a ridge, 21, that is formed across the lower portion of the recess 12. When the parts are adjusted as just described, they are in position to couple automatically, for when a link enters the mouth of the draw-head and strikes against the block 8 said block will be carried to the rear as the link enters the link-recess, and in being so carried to the rear will pass from beneath the point of the pin 15, thus permitting the pin to fall to the position in which it is shown in Fig. 1.

In order that the cars may be uncoupled from the top of a box or freight car, I provide the pin 15 with a chain, 22, which chain is arranged to extend upward to the top of the car.

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

1. In a car-coupler, the combination, with a draw-head and its coupling-pin, of a hook pivoted within the draw-head above the link-recess or chamber, and a block arranged to swing downward within the link-recess and beneath the coupling-pin when the link is withdrawn, substantially as shown and described.

2. In a car-coupler, the combination, with a draw-head formed with coupling-pin apertures and a link-recess, of a hook mounted above the link-recess and arranged to swing downward and backward to a position beneath the upper

coupling-aperture, and a block mounted to swing forward and downward within the link-recess to displace the hook, substantially as shown and described.

- 5 3. In a car-coupler, the combination, with a draw-head formed with a boss, 13, and a flange or rib, 21, and provided with a link-recess, and a recess, 2, of a hook mounted within the recess 2 and formed with a downwardly-extend-

ing projection, 9, and a block, 8, connected by 10 arms 7 with the boss 13, which arms pass through elongated slots formed in the draw-head, substantially as described.

REUBEN E. WOODS.

Witnesses:

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I. H. GLASS.