

(No Model.)

D. L. VESS.
CAR COUPLING.

No. 364,874.

Patented June 14, 1887.

Fig. 1.

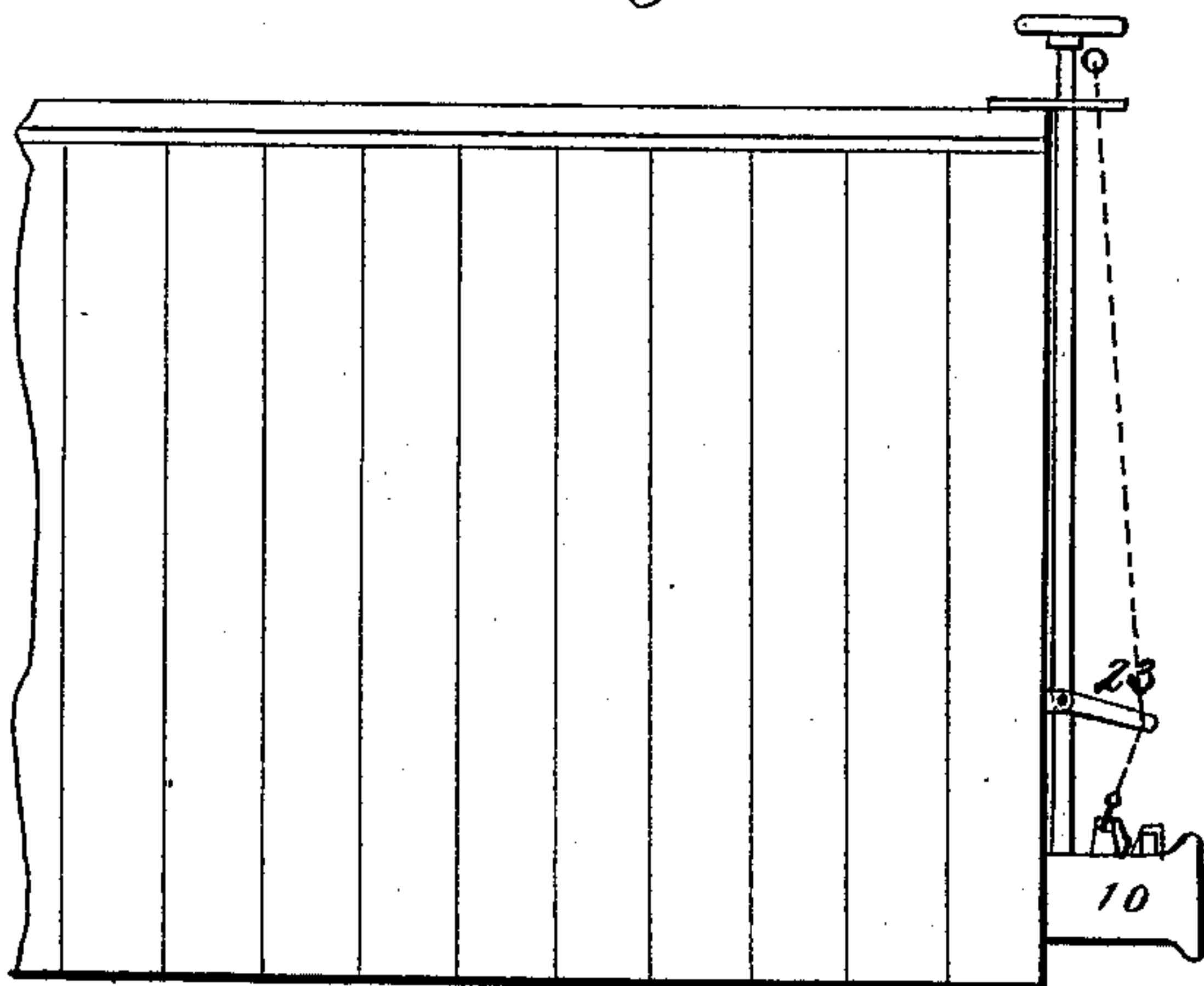


Fig. 3.

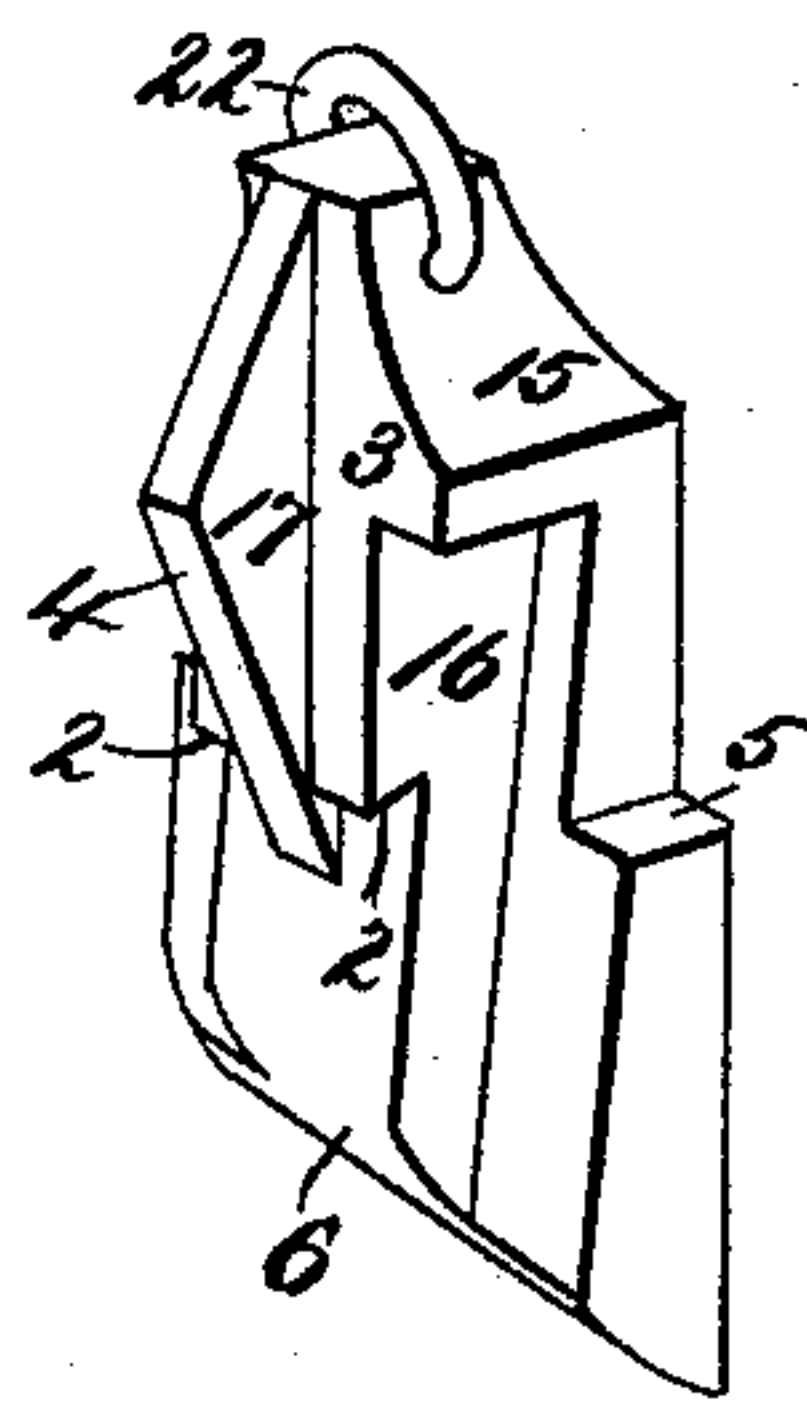


Fig. 2.

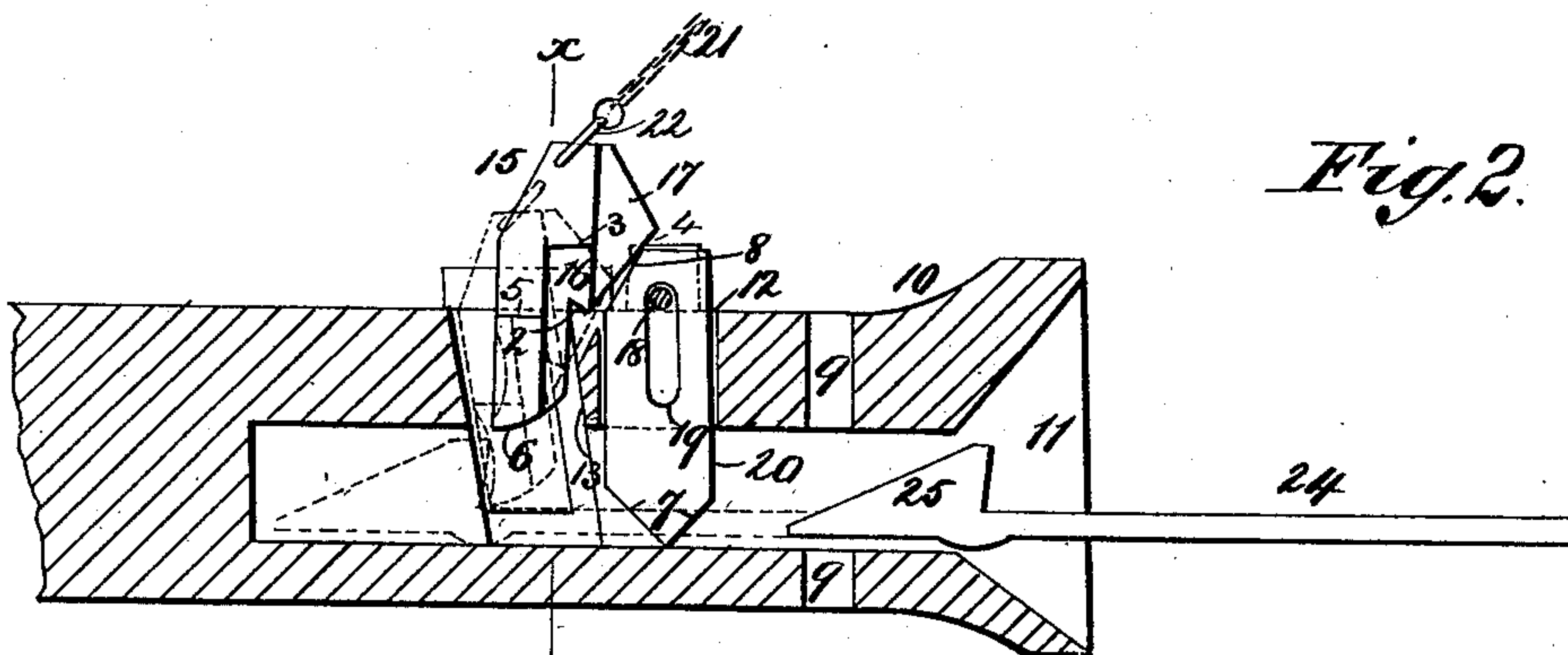
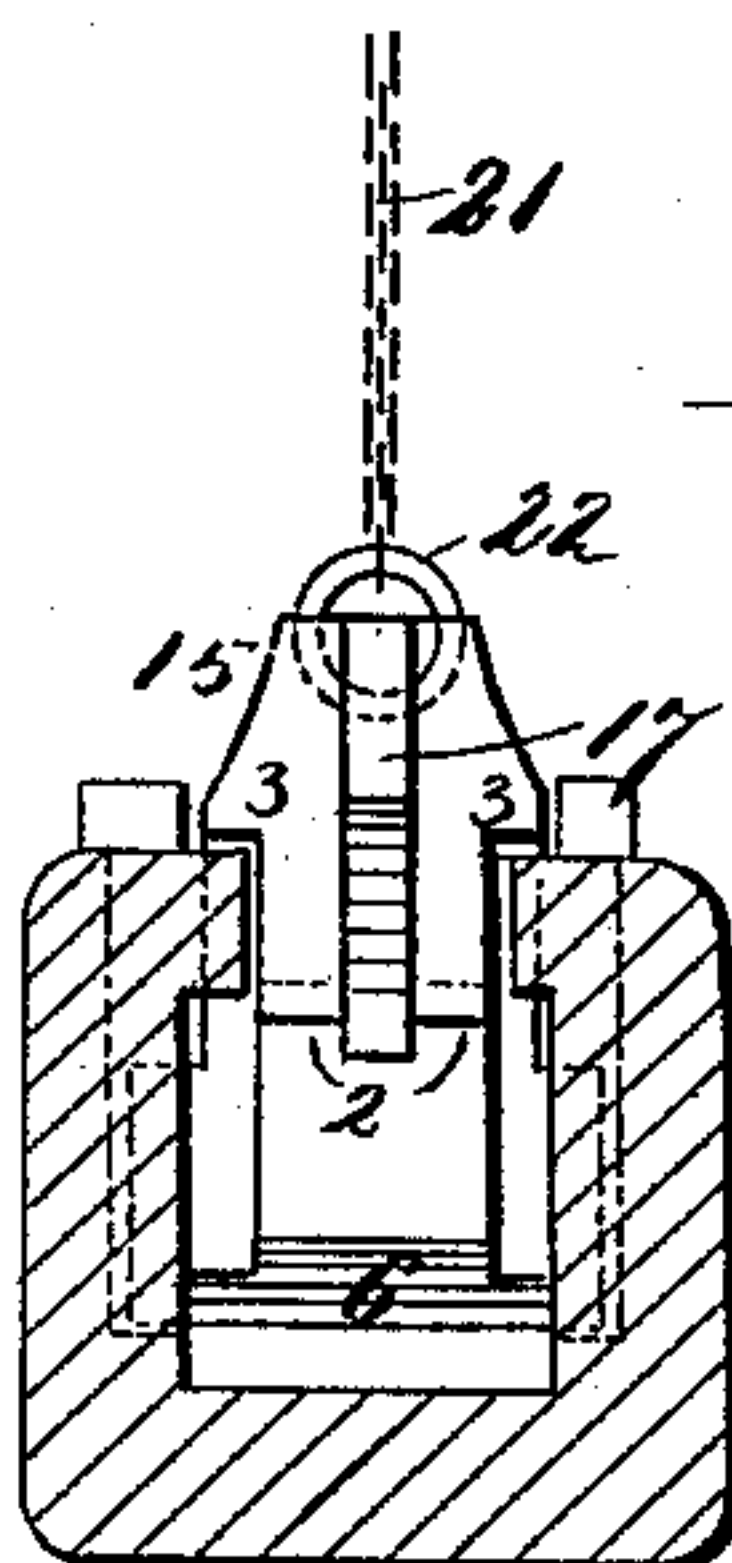


Fig. 4.



Fig. 5.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 364,874, dated June 14, 1887.

Application filed April 8, 1887. Serial No. 234,149. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. VESS, of Spokane Falls, in the county of Spokane and Territory of Washington, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

This invention relates to car-couplings, the object of the invention being to provide a coupling wherein the coupling-block may be set for automatic coupling with the link, 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 side view of a portion of a car-body provided with my improved form of coupling. Fig. 2 is a central sectional view of a draw-head provided with my coupling. Fig. 3 is a perspective view of the coupling-block which I employ. Fig. 4 is a perspective view of the tripping-slide; and Fig. 5 is a cross-sectional view taken on line $x x$ of Fig. 2, the coupling-block, however, being shown in full lines.

The parts constituting the coupling illustrated in the drawings above referred to are mounted in a draw-head, 10, that is formed with a flaring mouth, 11, a vertical recess, 12, and a rearwardly-inclined recess, 13, the bore of the draw-head being extended beyond the said recess 13.

Within the recess 13 I mount a coupling-block, 15, which block is formed with a forwardly-extending central rib, 16, upon which there are formed shoulders 2, other shoulders, 3, being formed above the shoulders 2 and at either side of the rib 16. Upon the upper portion of the face of the rib 16 I form a second narrow rib, 17, which has a lower inclined face, 4. On each side of the block 15 there are formed shoulders 5, which are made by auxiliary blocks, that are connected to the main block; or said blocks might be made integral with the main block. The lower end of the coupling-block is inclined, as shown at 6.

A coupling-block formed as above described is inserted within the recess 13, the shoulders 3 supporting the lower end of the

block at a point a short distance above the lower defining-wall of the draw-head recess or bore.

A tripping-slide, 20, having a doubly-inclined lower edge, 7, and an upper inclined face, 8, is mounted within the recess 12, just in advance of the coupling-block, the slide being held against displacement by a pin, 18, which passes through a slot, 19, formed in the body of the slide.

In order that the block 15 may be raised for the purpose of uncoupling the cars, I connect a chain, 21, to the rib 17 by means of a ring, 22, and said chain is in turn connected to an outwardly-extending lever, 23, that is pivotally connected to the car-body, the chain leading upward from the lever to a point above the top of the car—that is, to a position so that it may be grasped by the brakemen of the train. The coupling link or hook employed in connection with the coupling above described consists of a straight bar, 24, upon each end of which there is formed an inclined faced hook, 25.

Such being the general construction of the coupling, the operation is as follows: The chain 21 being raised, the coupling-block 15 will be drawn upward and forward until its shoulders 2 rest upon the upper face of the draw-head in advance of the recess 13, the inclined face 4 of the rib 17 at this time bearing against the inclined face 8 of the slide 20, when, if a coupling link or hook, such as that shown in Fig. 2, enters the mouth of the draw-head it will be guided upward to the bore of the draw-head by the flaring defining-walls of the mouth, and entering said bore will strike against the forward inclined portion of the lower end of the slide 20, and will raise said slide, and as said slide is raised the coupling-block 15 will be forced backward, so that its shoulders 2 will be freed from engagement with the upper face of the draw-head, and the coupling-block will be free to drop in advance of the hook 25 when said hook has reached the position in which it is shown in dotted lines in Fig. 2, and when the coupling-block is so dropped to the position in which it is shown in Fig. 2 the cars will be coupled together.

To uncouple the cars, the block 16 is drawn

upward by means of its chain 21, after which the coupling hook or link may be withdrawn from the draw-head.

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 provide the draw-head with vertical apertures 9, that are adapted to receive the ordinary form of coupling-pin.

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

1. The combination of the draw-head having a seat for engagement by the coupling-block, the coupling-block constructed to engage said seat, whereby it may be held out of coupled position, and a trip arranged to engage said block and free the same from its seat, whereby the said block may adjust into coupled position, substantially as set forth.

2. The combination, with a draw-head, of a coupling-block formed with an inclined faced rib, 17, and a tripping-slide arranged in connection with the coupling-block, the tripping-slide being formed with a doubly-inclined lower edge and an upper inclined face, 8, substantially as described.

3. The combination, with a draw-head, of a coupling-block formed with shoulders 2 and an inclined faced rib, 17, a chain connected to the block, a lever arranged in connection with the chain, a tripping-slide having a doubly-inclined lower edge and an upper inclined face, 8, the tripping-slide being arranged in connection with the coupling-block, substantially as described.

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Witnesses:

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