

(No Model.)

L. P. ALDEN.

CAR COUPLING.

No. 389,491.

Patented Sept. 11, 1888.

Fig. 1.

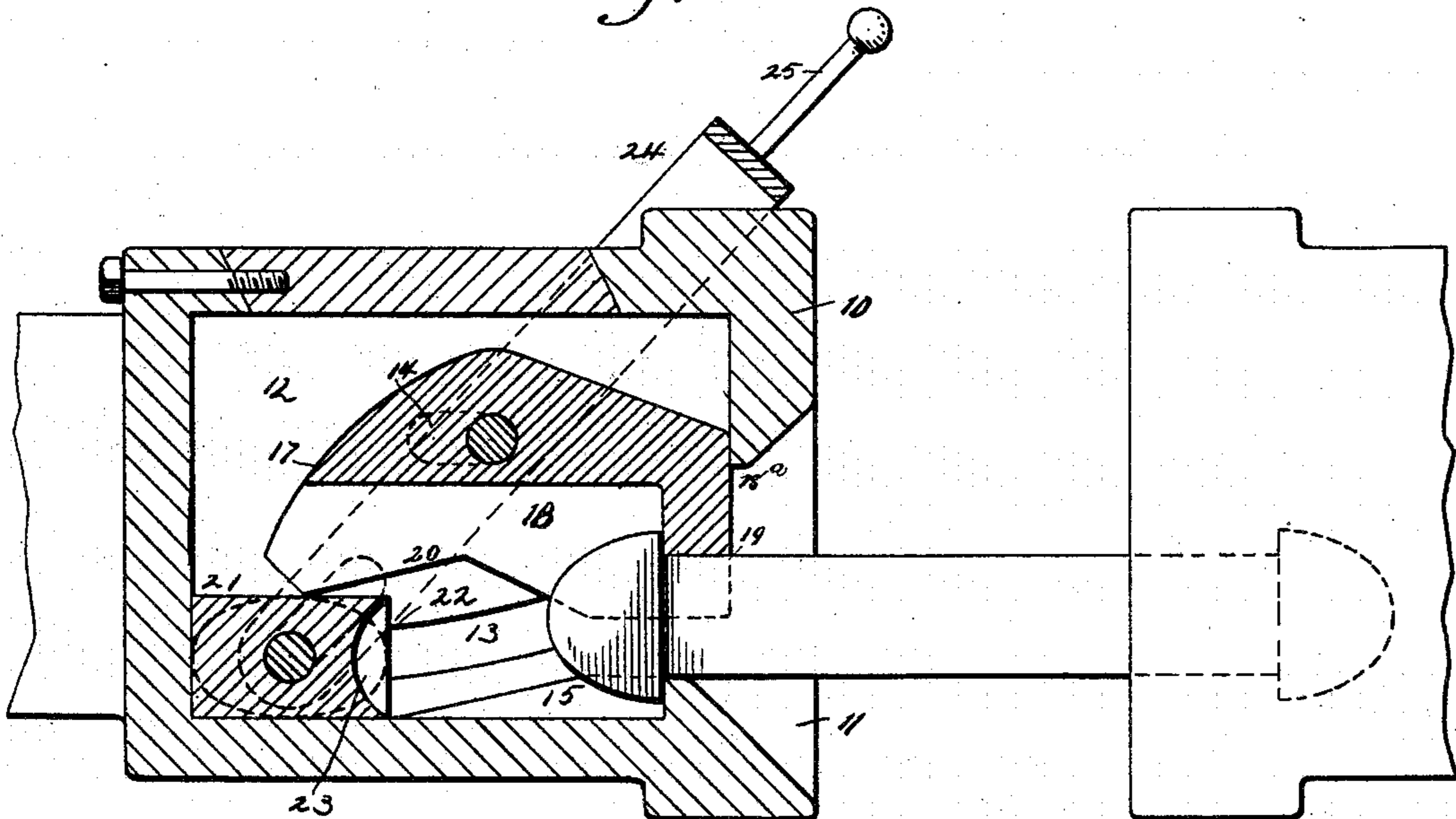


Fig. 2.

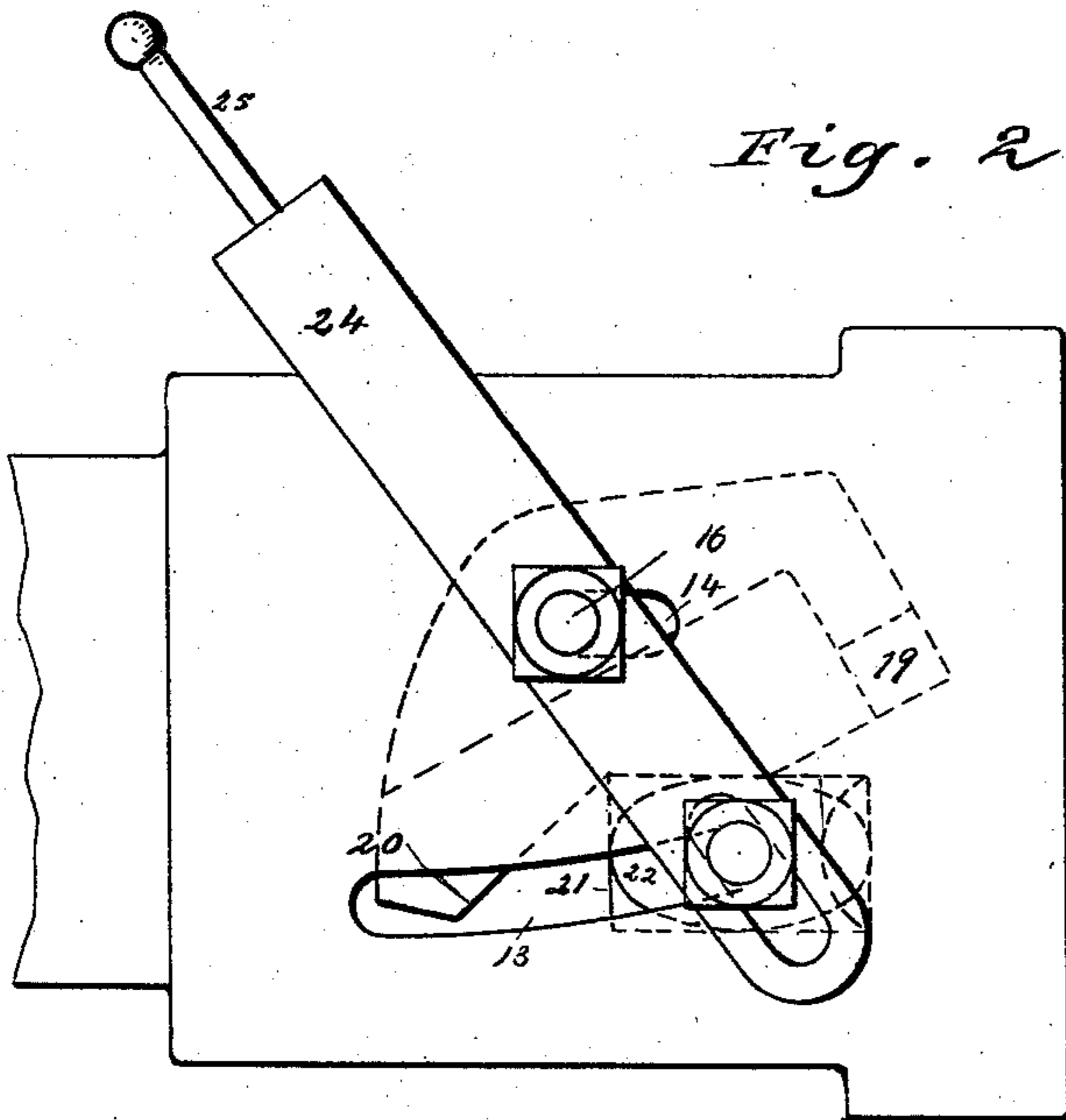
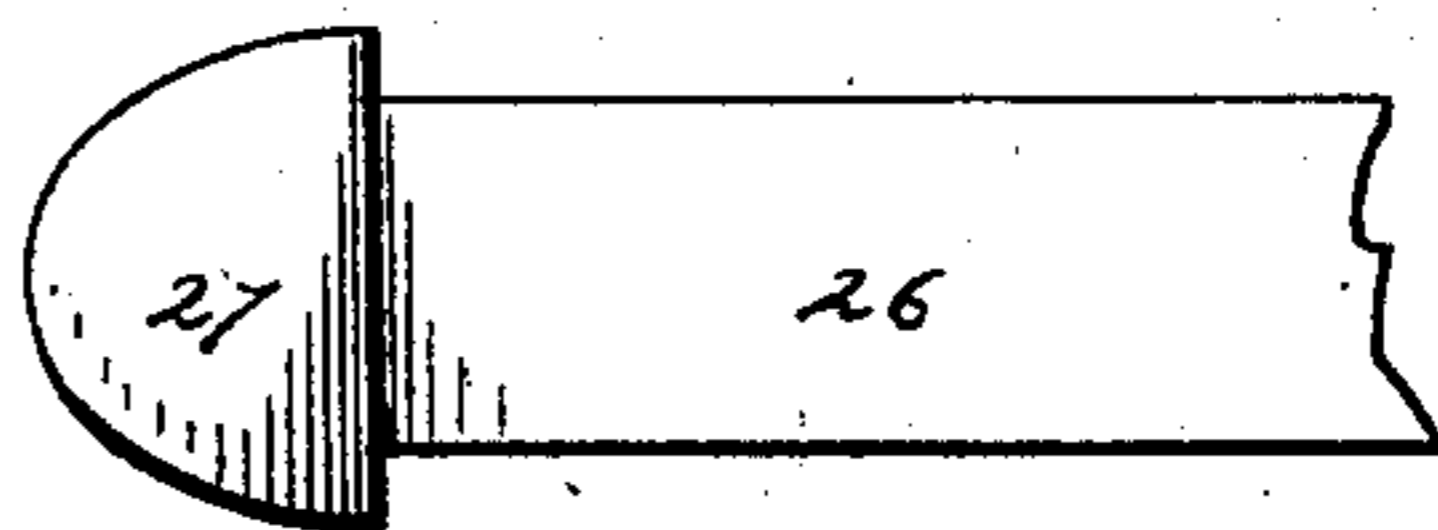


Fig. 3.



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LEE P. ALDEN, OF TUSTIN, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 389,491, dated September 11, 1888

Application filed June 2, 1888. Serial No. 275,826. (No model.)

To all whom it may concern:

Be it known that I, LEE P. ALDEN, of Tustin, in the county of Osceola and State of Michigan, have invented a new and useful Improvement in Car-Couplers, of which the following is a full, clear, and exact description.

My invention relates to an improvement in car-couplers, and has for its object to provide a simple, durable, and effective coupling, wherein the coupling may be automatically made and the cars uncoupled without the operator passing between them.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and 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 vertical section through a draw-head having my improvement applied. Fig. 2 is a side elevation of the same, and Fig. 3 is a partial elevation of the coupling-pin employed in connection with the coupler.

In carrying out the invention the draw-head 10 is provided with the usual link-opening, 11, which link-opening is preferably located nearer the bottom of the draw-head than the top, and leads into a chamber, 12, formed within the said draw-head, as best shown in Fig. 1.

In each side wall of the chamber 12, near the bottom, a segmental slot, 13, is produced, which slots have more of an inclination to the front than to the rear, and above said slots, also in the side wall, an oval aperture, 14, is produced.

Upon the lower wall or bottom of the chamber 12, near each side wall, inclined planes 15 are formed, which inclined planes form a track for a following block, hereinafter described, whereby said block is conducted in the direction of the link-opening.

In the several apertures 14 trunnions 16 of an angular locking-block, 17, are pivoted, which block is provided upon its under face with a concave recess, as shown at 18 in Fig. 1, the forward wall, 18^a, of which is provided with cylindrical recess 19, and the side walls of which are cut away to form the inclined faces 20.

Beneath the locking-block 17 a follower, 21, is held to slide upon the bottom of the chamber 12, which follower consists of an essentially rectangular block provided with trunnions at each end, the said trunnions being journaled in the segmental slots 13 and reduced essentially oval-shaped end surfaces, 22, as best shown in dotted lines in Figs. 1 and 2, which oval surfaces are adapted to travel upon the inclined planes 15, for a purpose hereinafter set forth. The forward face of the follower is also provided with a concavity, 23, (best shown in Fig. 1,) adapted to receive the head of the link.

An essentially U-shaped metal strap, 24, is made to extend over the top of the draw-head, the members whereof are respectively fastened to the trunnions of the locking-block and follower, as shown in Fig. 2, in any suitable or approved manner, the said strap being purposed to operate the said follower and locking-block, and to that end is provided with an upper central handle, 25; or a shaft may be provided transversely the end of the car above the sill, extending beyond the ends of said car, which shaft may be attached to the strap, as may be found desirable. The coupling-link used in connection with this coupler consists of a round bar, 26, provided with enlarged cylindrical heads 27, one head being located at each end of the bar.

To place the various operative parts of the draw-head in position to couple with an opposing draw-head, the strap 24 is moved to the rear, as shown in Fig. 2, which movement causes the follower to ascend the inclined planes, thereby elevating the forward end of the locking-block. The link of the opposing coupler, as the cars approach, entering the link-opening, is brought in contact with the front recess, 23, in the follower, driving the said follower to the rear of the chamber 12, whereby the rear end of the locking-block 17 is elevated and the forward end depressed, as shown in Fig. 1. When this movement takes place, the strap is carried in the direction of the front end of the draw-head. As the cars are pulled apart, the head 27 of the link binds against the inner side of the forward end wall of the locking-block, and is effectually held in position thereby. To uncouple the cars, the

strap is carried to the rear, whereupon the link is essentially forced out by the forward motion of the follower automatically released.

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

1. The combination, with a draw-head provided with a link-opening and an inner chamber and inclined planes at each side of said chamber upon the bottom at the front, of a follower adapted to slide upon said inclined planes and an angular locking-block pivoted above said follower and actuated by the same, as and for the purpose specified.

2. The combination, with a draw-head having a link-opening, an inner chamber, a segmental slot in the sides of said chamber near the bottom, and inclined planes secured to the bottom of said chamber near each side, of a follower guided in said slots, an angular locking-block pivoted above said follower actuated

thereby, and a strap embracing the draw-head and attached to the pivotal ends of the said follower and locking-block, substantially as and for the purpose specified.

3. The combination, with a draw-head provided with a link-opening, an inner chamber having segmental slots produced in the wall thereof near the bottom, and an inclined plane secured to the bottom of said chamber at each side, of a follower guided in said slots provided with a concavity in its front surface and reduced essentially oval ends, an angular locking-block pivoted above the follower, and a U-shaped strap extending over the draw-bar, and having its members attached to the pivotal points of the follower and locking-block, as and for the purpose specified.

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Witnesses:

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