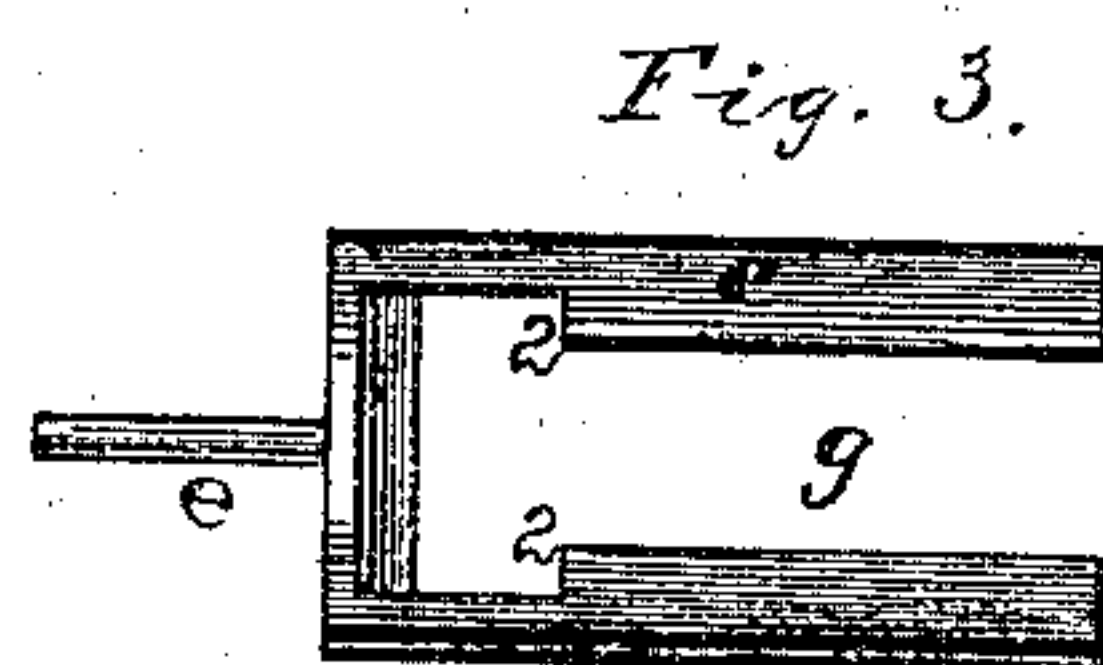
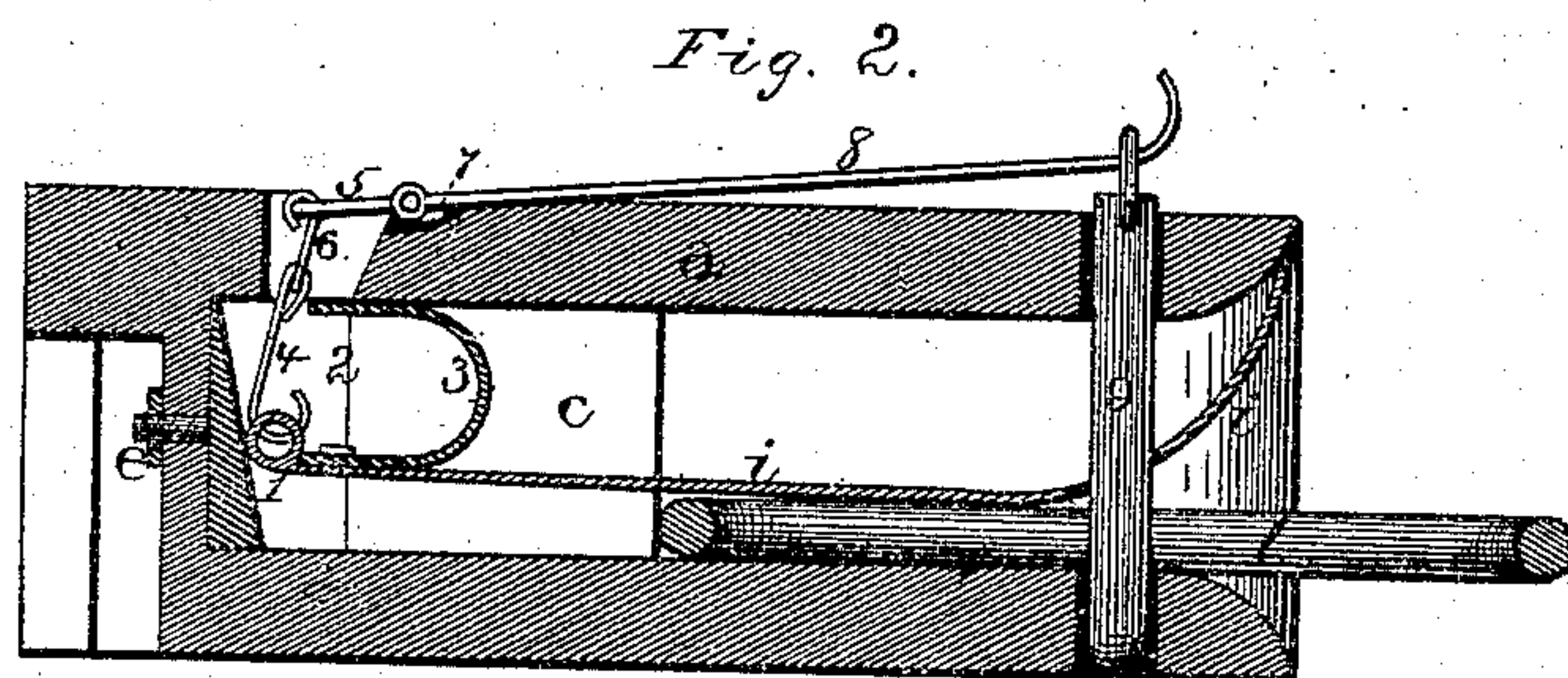
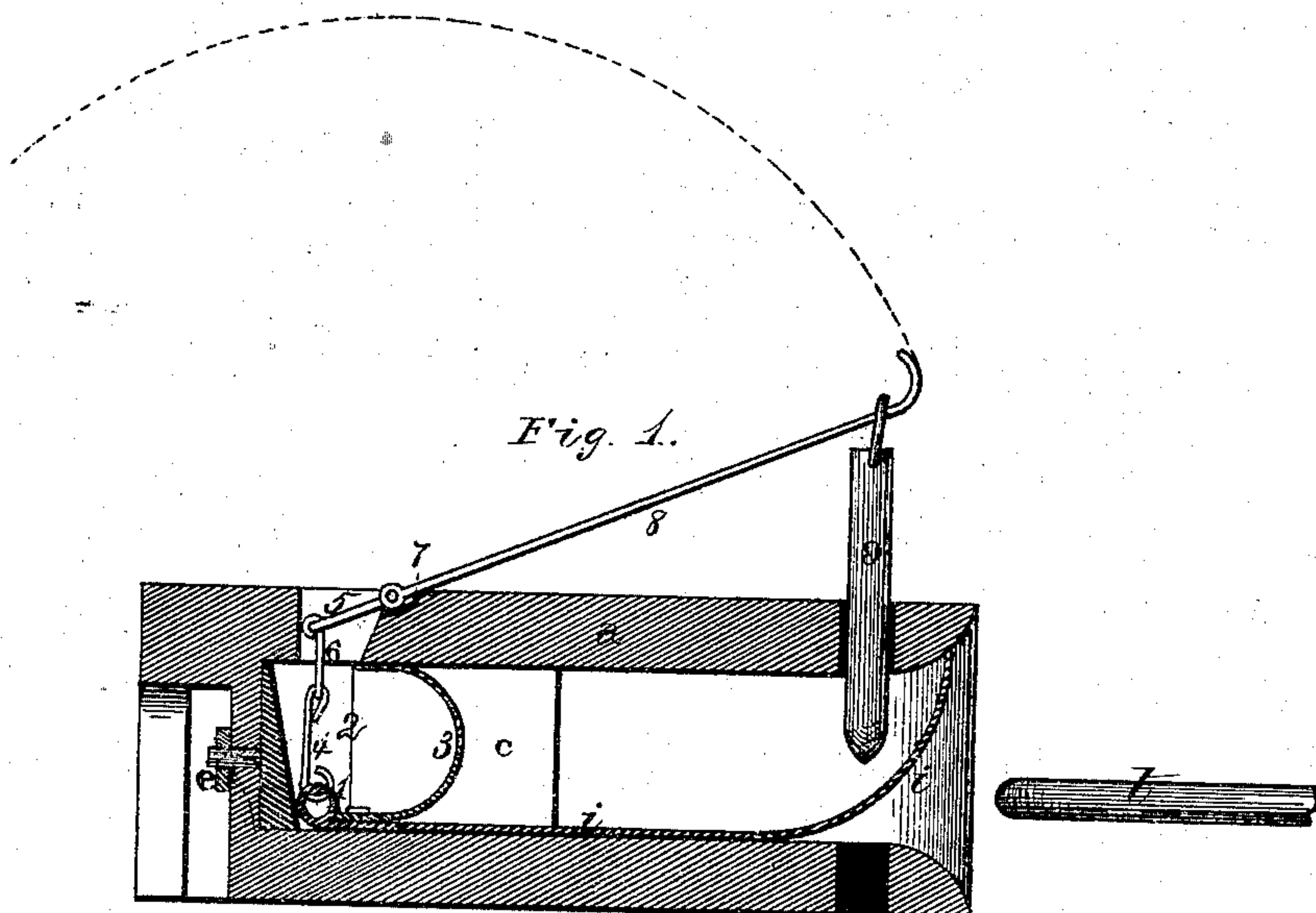


A. ZEIGLER.
Car-Couplings.

No. 143,215.

Patented September 23, 1873.



WITNESSES.

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ALBERT ZEIGLER, OF CUMBERLAND, MARYLAND.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **143,215**, dated September 23, 1873; application filed July 1, 1873.

To all whom it may concern:

Be it known that I, ALBERT ZEIGLER, of Cumberland, in the county of Alleghany and State of Maryland, 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in self-car-couplings; and it consists in the arrangement and combination of parts, which will be more fully set forth hereafter, whereby a simple, cheap, and effective coupling is produced.

Figure 1 is a sectional view of my invention, showing the parts in position, ready to be coupled. Fig. 2 is a similar view, showing the parts coupled. Fig. 3 is a detail view.

a represents the draw-head, constructed in the usual manner, and which may be secured to the frame-work of the cars in any suitable manner. In the rear end of each head is placed a cylindrical casting, *c*, which just fits the bore, and which is held in position by the bolt and nut *e*. Through this casting is made an opening, *g*, which extends nearly its whole length, and which is wider at its rear end than the front one. The rear end of the opening is made inclined, so as to form a guide or way for the rear end of the spring-plate *i*, which has a limited up-and-down movement, caused by the insertion and withdrawal of the link *l*. This plate is made of a thin sheet of metal, having its rear end formed into a suitable head, *1*, which catches behind the shoulders 2 of the casting, so as to prevent it from being pulled out of position, while the front end is curved upward at the mouth of the head, so that when the link strikes it the link will pass down under it, as shown in Fig. 2, raising the plate upward upon its top. As soon as the link is withdrawn the spring 3, secured to the top of the rear end of the plate, forces it down-

ward into position again, as shown in Fig. 1. Hooked through the head 1 is the link 4, which is connected to the small pivoted lever 5 by a second link, 6, lever 5 having a small projection, 7, formed upon its front end, which catches under the arm or lever 8, to which the coupling-pin 9 is attached. The arm or lever 8 is pivoted upon the same pin as the lever 5, and can be freely swung forward and back, as shown in dotted lines, until it strikes against the projection on the front end of the lever, when the two will be moved together.

When the parts are ready to be coupled the plate will be held downward by the pressure of the spring 3, which will cause the links to draw the lever 5 downward and throw the arm or lever 8 upward, holding the pin suspended, as shown in Fig. 1. When the cars come together, and the link is inserted, it raises the plate upward, compressing the spring 3, and slackens the connecting-links, so that the weight of the pin is enough to draw the lever downward sufficiently far to allow it to pass through the plate and link *l*, as shown in Fig. 2, and bind the cars together.

The length of the casting *c* will depend upon the length of the link used. As shown in Fig. 2, the link passes into the head until it abuts up against this casting. Where a short link is used the casting will be lengthened, and where a long one is used it will be shortened.

Having thus described my invention, I claim—

1. The combination of the plate *i*, spring 3, connecting-links, and levers 5 8 with the coupling-pin 9, substantially as described.

2. The combination of the head *a*, casting *c*, plate *i*, spring 3, links 4 6, levers 5 8, arm or projection 7, and pin 9, when all are arranged to operate as specified.

In testimony that I claim the foregoing I have hereunto set my hand.

ALBERT ZEIGLER.

Witnesses:

F. A. LEHMANN,
W. G. KENDIG.