W. PROSSER.

Car Coupling.

No. 17,845. Patented July 21, 1857.

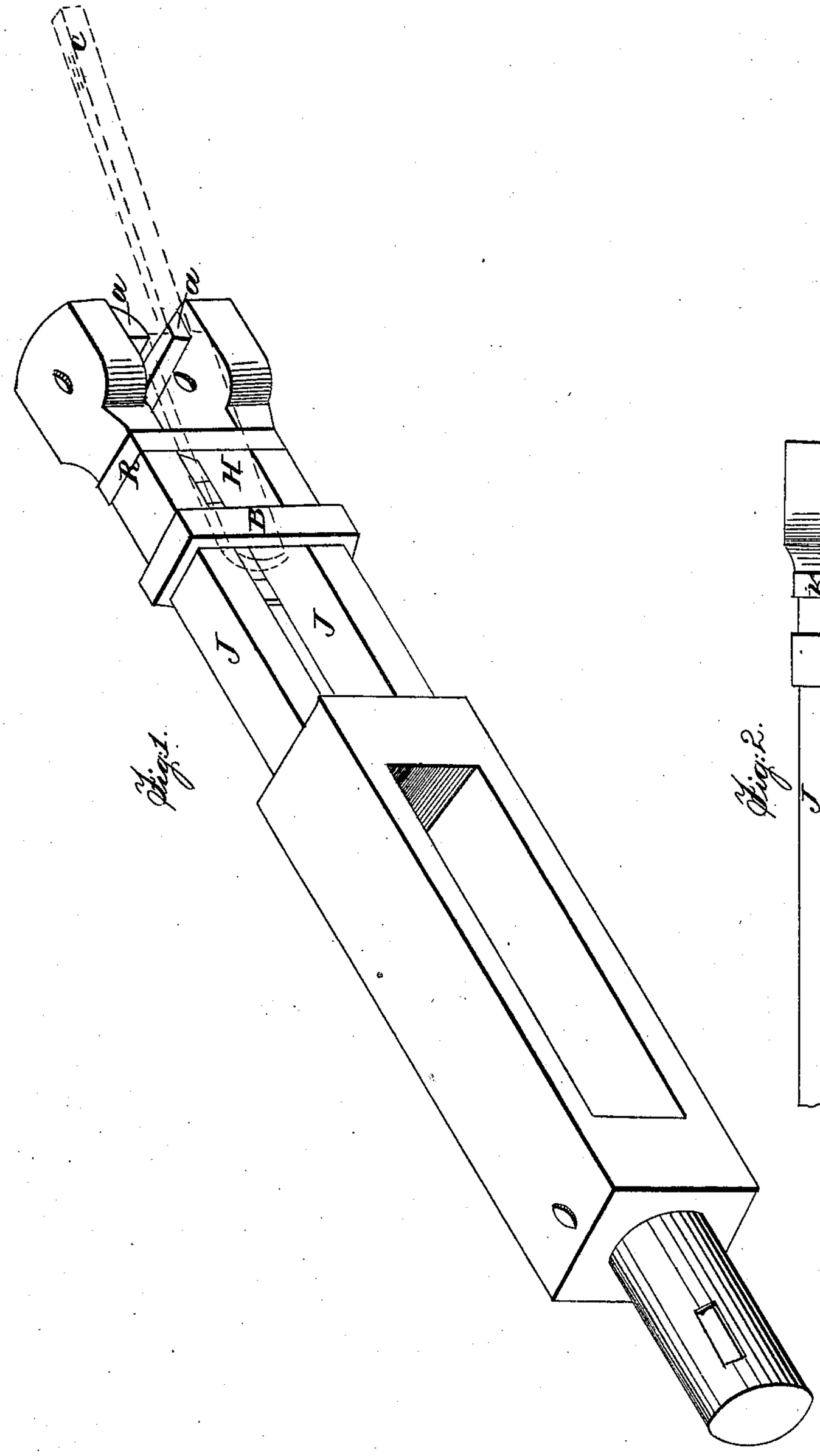

Fig. 1.

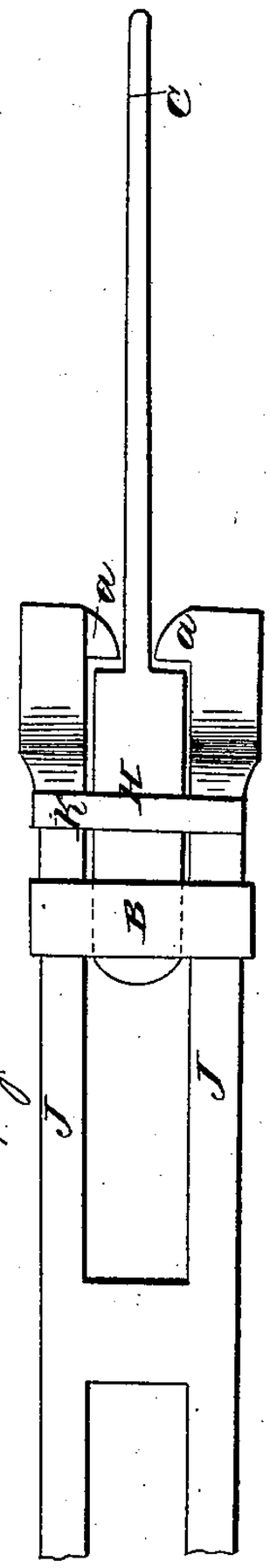

Fig. 2.

UNITED STATES PATENT OFFICE.

WELLINGTON PROSSER, OF KENDAL, NEW YORK.

RAILROAD-CAR COUPLING.

Specification of Letters Patent No. 17,845, dated July 21, 1857.

To all whom it may concern:

Be it known that I, WELLINGTON PROSSER, of the town of Kendall, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Railroad-Car Couplers, of which the following is a full and accurate description, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon.

In said drawings, Figure 1 is an isometrical view of the coupler and link or shackle-bar, and Fig. 2 is an elevation of the end of the draw head, showing the link in position.

The nature of my invention consists in so constructing and arranging the several parts of a car-coupler, that while they unite the cars safely and efficiently so long as the engine or cars remain on the track, yet, as soon as the engine or any car leaves the track, it instantly becomes disengaged from the other cars.

With this object in view, I construct the draw head as shown in Fig. 1, in which will be seen the two projecting jaws (J J.) These jaws have the projections (*a a*) which contract the space between them at the outer end, and prevent the head (H) of the link or shackle-bar (seen more plainly in Fig. 2) from passing through. Hence it will be readily seen that so long as the link or shackle bar remains parallel with the jaws, no force short of fracture can disengage it. But it will also be perceived that if it be slid to one side, so that the head H can pass the ends *a a* of the projections, it will instantly become disengaged. To cause it to remain in place so long as acted on by a force exerted in a line parallel with the jaws (J J) and at the same time to cause it to be infallibly disengaged, on the line of draft becoming oblique, I attach the band or hoop (B,) which surrounds the jaws (J, J) and inclose the end of the link. As it is evident then, that the link must lie on a straight line between the point of attachment (as C,) and the interior of the hoop B, so long as this tension is in the line of the jaws (which is of course designed to coincide with the line of the track,) it will be impossible to draw out the link. But on the link's being drawn into the position shown in dotted lines, (which it must necessarily be, on the engine, or any of the cars leaving the track,) there is evidently no obstacle to its being withdrawn. It is further evident that the degree of inclination to, or deviation from the line of the track required to free the link from the drawhead, depends upon the position of the band (B) upon the jaws—the deviation required, being less in proportion to the greater distance of the band from the projections (*a a*). This point would require attention in adapting the drawhead to various railroads, so as to combine the greatest safety with proper efficiency, for in proportion as the curves on any road are of small radius, so will the distance between the band and the projections have to be contracted. To retain the link in proper position while the cars are uncoupled, I make use of the india rubber band shown at (R,) which offers a sufficient resistance to the link to prevent its falling out, but presents no appreciable obstacle, upon the links being forcibly drawn aside.

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

The combination of the jaws (J J) hoop or band (B,) and link or shackle-bar (H) the whole being constructed and operating substantially as herein described, it being understood that I do not claim the combination of the jaws (J J) with the link H alone but the combination of these two elements with the band (B).

WELLINGTON PROSSER. [L. S.]

Witnesses:
JOHN PHIN,
A. K. AMIDON.