(No Model.)

C. BROWN.

CAR COUPLING.

No. 495,958. Patented Apr. 25, 1893.

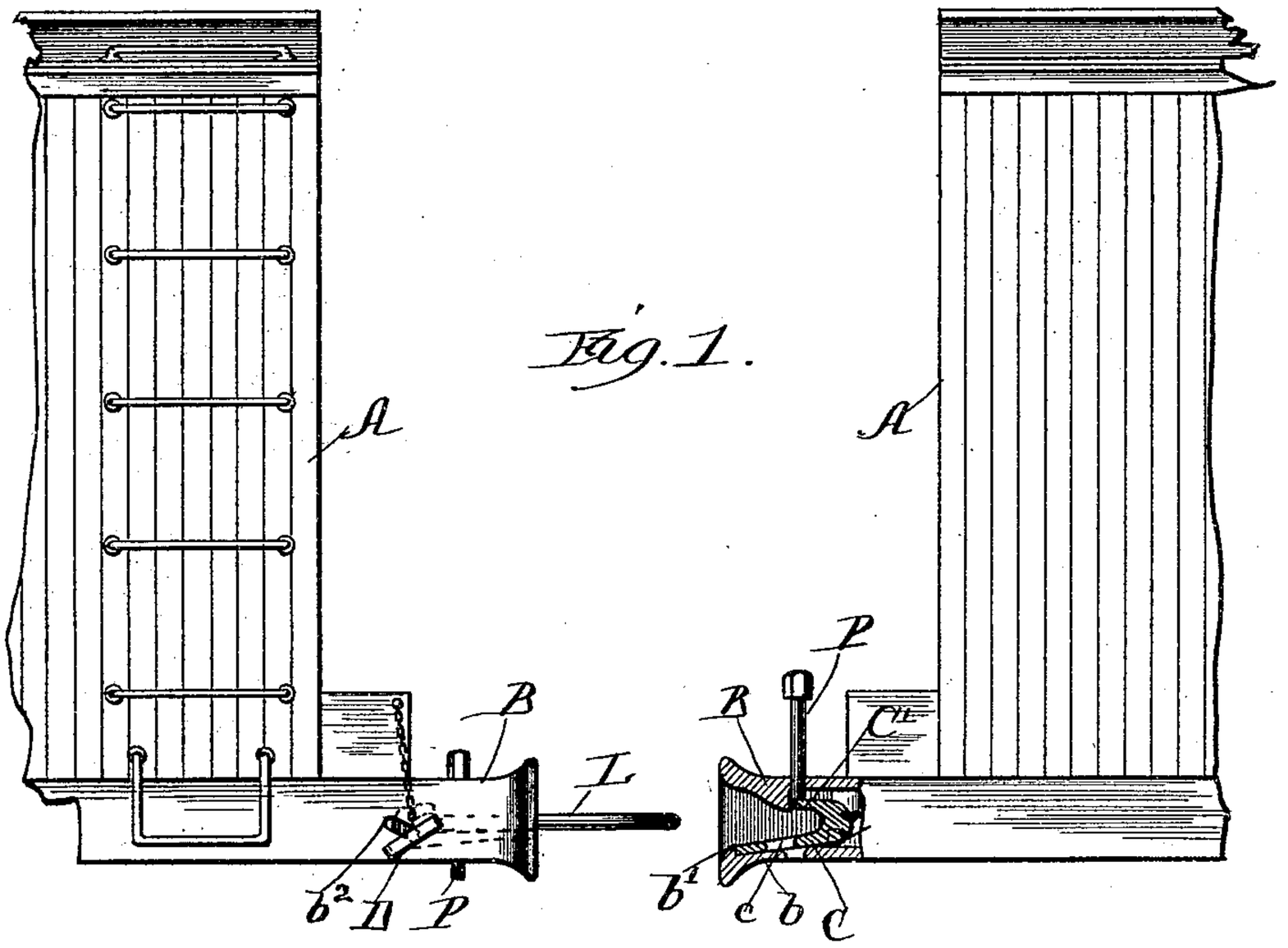

Fig. 1.

Fig. 2.

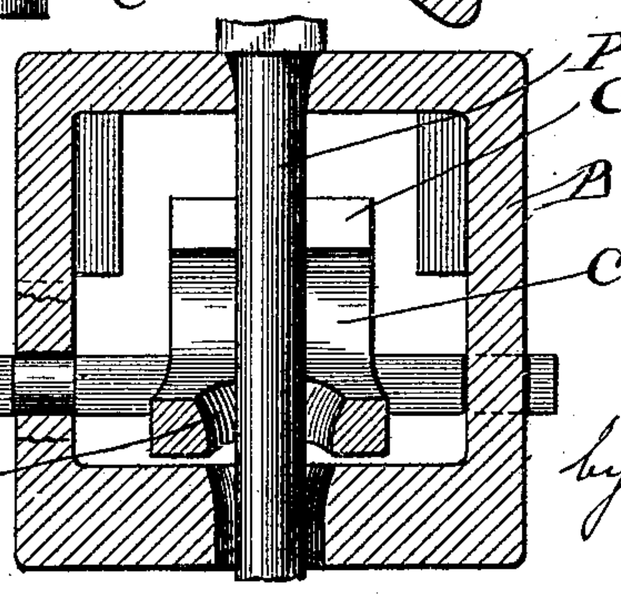

Fig. 3.

Witnesses:
Chas. O. Sherry
A. D. P. Robeson

Inventor:
Clark Brown
by Niles, Bremer & Bitner
Attys.

UNITED STATES PATENT OFFICE.

CLARK BROWN, OF FREEPORT, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,958, dated April 25, 1893.

Application filed July 12, 1892. Serial No. 439,790. (No model.)

To all whom it may concern:

Be it known that I, CLARK BROWN, a citizen of the United States of America, residing at Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to improvements in car couplings and is fully described and explained in this specification and shown in the accompanying drawings; in which,

Figure 1 is a view partly in side elevation and partly in vertical section illustrating the meeting ends of two cars provided with my improved coupling. Fig. 2 is an enlarged central longitudinal vertical section of the working parts of the coupling. Fig. 3 is a transverse vertical section of the coupling, the plane of section being through the axis of the coupling pin.

In the views, A, A are the bodies of two cars of suitable construction, and B, B are suitably supported drawheads attached to the cars and supporting the coupling mechanisms. Each of the drawheads is a tube preferably rectangular in cross-section and having the open flaring mouth common in devices of this class. The inner lower face of each of the drawheads is formed with an incline *b*, sloping downward toward the open end of the drawhead and terminating in an abrupt shoulder *b'*, clearly shown in Figs. 1 and 2. The side faces of each of the drawheads are formed with slots b^2, placed directly opposite each other and sloping downward toward the open end of the drawhead as also illustrated in Figs. 1 and 2. Each of the drawheads is also formed with openings in its top and bottom faces, these openings being in the same vertical line and being adapted to receive a coupling pin P, of ordinary construction provided with a head *p*, adapted to rest upon the top of the drawhead and support the pin in place when in the position shown in Fig. 2.

On the incline *b*, of each of the drawheads rests a sliding latch C, provided with an overhanging lug C', and formed with an opening *c*. To the rear end of the latch C, is rigidly secured a transverse rod D, of such length that one or both of its ends may be accessible to an operator standing at the side of the car, the accessible end or ends of the rod being so formed to facilitate the rotation of the rod by the hand of the operator. The rod D, passes through the slots b^2, in the side walls of each of the drawheads and the inclination of these slots and of the incline *b*, is sufficient to cause the latch to slide toward the open end of the drawhead, so that the normal position of the latch is that shown in section in Fig. 1, the front end of the body of the latch being in contact with the shoulder *b'*, at the end of the incline *b*. When the latch is in the position shown in Fig. 1, the overhanging lug C', lies directly under the opening in the top of the drawhead adapted to receive the pin P, and if the pin be inserted in said opening, it will rest upon and be supported by the lug in the manner illustrated in that figure; and when the latch is in this position, the opening *c*, is out of line of the working position of the pin P. If, however, the latch C, be pressed inward or away from the end of the drawhead, until it reaches the position shown in Fig. 2, the lug C', will be moved backward from beneath the pin P, and will cease to support it and, at the same time, the opening *c*, will be brought directly under the opening in the top of the drawhead and directly over the opening in the bottom thereof. In this position of the latch, the pin P, is free to drop downward through the opening *c*, and through the opening in the bottom of the drawhead and to reach the position illustrated in Fig. 2.

The two drawheads provided with the sliding latches C, and coupling pins P, are connected by means of a link L, of ordinary form, which in Figs. 1 and 2, is shown as retained and supported at one end by the working parts in one of the drawheads, the other end of the link being free to engage the pin in the other drawhead. If the two drawheads in Fig. 1, be moved toward each other, the free end of the link L, must enter the drawhead shown in section and strike the latch C, at the point below the lug C', whereby the latch will be forced backward and upward to the position shown in Fig. 2, when the pin P, will drop down through the link and through the openings below it and will reach the position illustrated in Fig. 2.

When the parts are in the position shown

in Fig. 2, the latch C, and link L, may be rocked upward about the rod D, as a pivot, and the position of the link L, may thus be varied between the limits illustrated in dotted lines in the figure. This variation of position of the link is sufficient to compensate for differences in the relative heights of two approaching drawheads, and thus facilitates the coupling of two cars under any circumstances. As the operating rod D, is accessible from the side of the car, the link may be manipulated by an operator standing at the side of the car and without any danger whatever to himself. The pin, may, of course, be placed in the position shown in the sectional view of Fig. 1, when the cars are so distant from each other as to permit the placing of the pin without danger to the operator.

Each of the drawheads is preferably provided with a lug b^3, formed on its upper and inner face, the front face of the lug being inclined to serve as a guide for the end of the link, and the rear face being abrupt to serve as a support for the pin against strain.

The ends of the rod D, may be supported in any desired manner adapted to permit the movement of the rod in unison with the drawhead by which it is supported. As shown in the drawings, the end of the rod is supported by a chain fastened at its upper end to a projection attached to the body of the car.

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

In a car coupling, the combination with the drawhead B, having the inclined slots b^2, and incline b, of the latch C, formed with a lug C′, and opening c, and the transverse rod D, secured to the latch and passing through the slots b^2; substantially as shown and described.

CLARK BROWN.

Witnesses:
J. A. CRAIN,
R. H. WILES.