(No Model.)

J. F. WILLIAMS & B. F. DEWERT.

CAR COUPLING.

No. 342,276. Patented May 18, 1886.

Fig. 1.

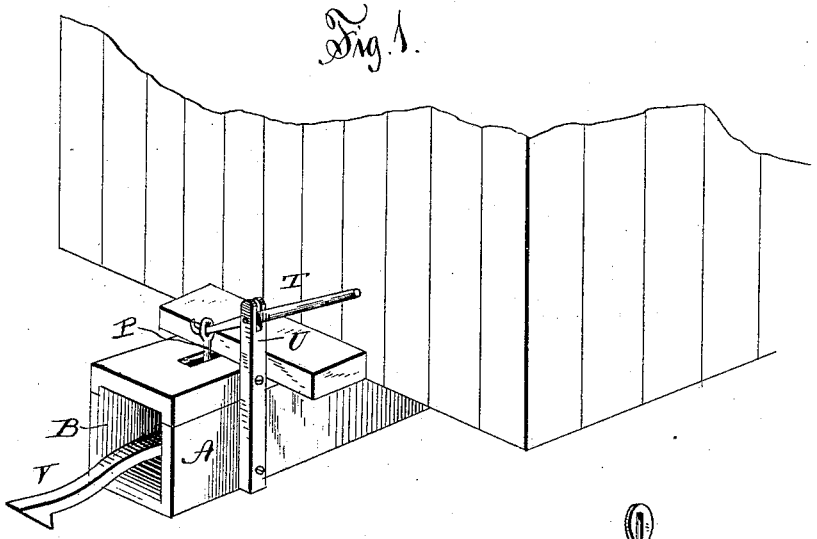


Fig. 2.

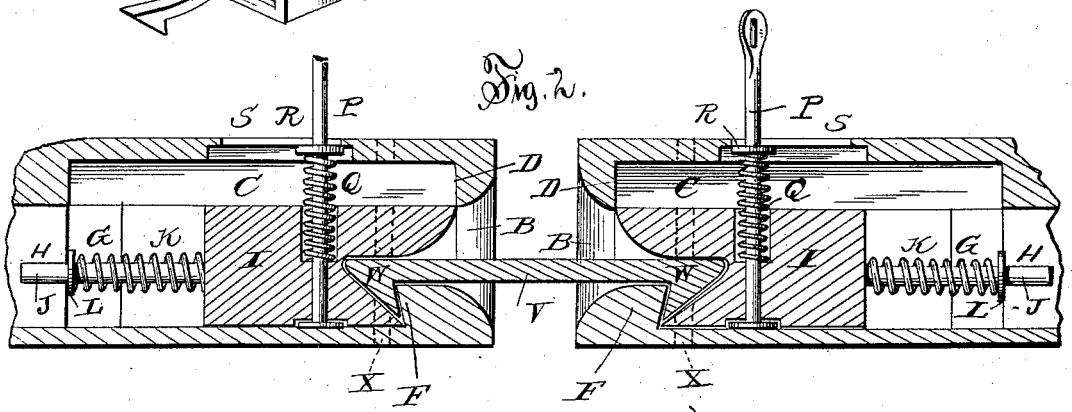


Fig. 3.

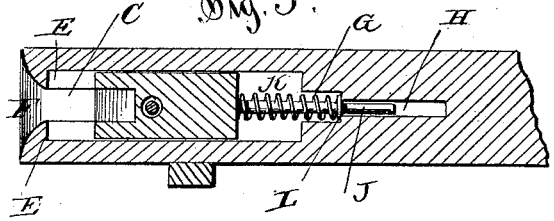
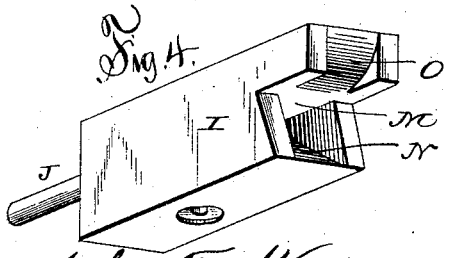


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN FRANKLIN WILLIAMS AND BENJAMIN F. DEWERT, OF MONTROSE, MISSOURI, ASSIGNORS OF ONE-THIRD TO AUGUST VAN HALL, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 342,276, dated May 18, 1886.

Application filed March 5, 1886. Serial No. 194,158. (No model.)

To all whom it may concern:

Be it known that we, JOHN FRANKLIN WILLIAMS and BENJAMIN F. DEWERT, both residents of Montrose, in the county of Henry and State of Missouri, have invented certain new and useful Improvements in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a portion of a railway-car provided with our improved coupling. Fig. 2 is a longitudinal vertical sectional view showing two couplings connected. Fig. 3 is a horizontal sectional view, and Fig. 4 is a perspective view of the sliding block within the draw-head.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to that class of automatic car-couplings in which a link having beveled and shouldered heads is engaged and held by a shoulder within the recess in the draw-head; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a draw-head, which may be connected to the car in any desired manner, and which is shaped in substantially the same manner as the common pin-and-link draw-heads, having a beveled mouth, B, for its interior recess, C. This recess extends longitudinally within the draw-head, and forms shoulders D and E at the top and sides of the mouth of the recess, while at the bottom a shoulder, F, is formed to the rear of the shoulders at the sides and top. The rear end of the recess is extended into a slightly narrower recess, G, which again is continued into a long and narrow recess, H. A block, I, slides within the recess, and is provided with a rearwardly-extending rod, J, having a spiral spring, K, wrapped around it, and this rod slides in the narrow rear recess, while the end of the spring bears against a washer, L, which bears against the rear end of the narrower recess, the spring forcing the block forward. The forward end of the block is cut away at the under side, forming an upper projecting portion, M, the forward end of which is formed with a downwardly-beveled recess, N, and the face of the cut-away lower portion is formed with an upwardly-beveled recess, O. The upper side of the sliding block is provided with an upwardly-projecting rod, P, having an eye at its upper end, and a spiral spring, Q, is wrapped around this rod, bearing against the block and against a washer, R, which bears against the under sides of the edges of a longitudinal slot, S, in the top of the draw-head, within which slot the upright rod may slide. The hooked inner end of a lever, T, engages the eye in the upper end of the upright rod, and this lever is pivoted upon the upper end of an upright, U, upon the side of the draw-head, the outer end of the lever projecting either to the side of the car, if it is a low car, or, if it is a box-car, the upright reaches to the top of the car, or other suitable connection is made with the top of the car. The link V is formed with its ends beveled upon the under side and formed with inwardly-facing shoulders W W, and these beveled ends or heads of the link may enter the mouth of the draw-head and force the sliding block upward, allowing the shoulder of the link to engage the shoulder at the bottom of the recess. The sliding block, being held down by one spring and being cushioned longitudinally by another spring, may yield to the motions of the car, and at the same time keep the head of the link in its proper position, the beveled side of the head fitting into the lower beveled recess in the forward end of the sliding block, while the upper beveled recess serves to guide the head of the link into its recess. By raising the sliding block the beveled head of the link is raised with its shoulder above the shoulder at the bottom of the recess in the draw-head, the beveled recess in the sliding block forming a continuation of the beveled bottom of the mouth of the draw-head, and the link will thus be allowed to be withdrawn when the sliding block has its outer end raised. The upright rod of the sliding block sliding in the longitudinal slot of the top of the draw-head

will allow free play for the sliding block, and will enable the block to be lifted at any time, without regard to the position of the block within the draw-head. The top and bottom of the draw-head and the projecting portion of the forward end of the sliding block may be formed with a vertical perforation, X, as shown in dotted lines in Fig. 2, through which a common coupling-pin may be inserted, so as to enable the coupling to be used in connection with any link-coupling.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a car-coupling, the combination of a draw-head having a beveled mouth and formed with shoulders at the top and sides of the mouth, and with a shoulder to the rear of the other shoulders at the bottom, a block having a projecting portion at the upper portion of the forward end, formed with a downwardly-beveled recess in its face and having an upwardly-beveled recess in the inner and lower portion of its forward end, and a coupling-bar having downwardly-projecting and forwardly-beveled shoulders at its ends, as and for the purpose shown and set forth.

2. In a car-coupling, the combination of a draw-head having a beveled mouth and a longitudinal recess formed with shoulders at the top and sides of its forward end, and with a shoulder to the rear of these shoulders at the bottom, and formed with a short narrower recess and with a long and still narrower recess in its rear end, a block having the upper portion of its forward end projecting and formed with a downwardly-beveled recess, and having the lower portion formed with an upwardly-beveled recess, and having an upwardly-projecting rod sliding in a longitudinal slot in the top of the draw-head, and a rearwardly-projecting rod within the narrow recess, a spring coiled around the upright rod and bearing against the top of the draw-head, a spring coiled around the rearwardly-projecting rod and bearing against the bottom of the narrower recess, a link having downwardly-projecting and forwardly-beveled shoulders at its ends, and a lever suitably pivoted to the side and above the draw-head, and having its inner hooked end engaging the eyed upper end of the upright rod upon the sliding block, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

JOHN FRANKLIN WILLIAMS.
BENJAMIN F. DEWERT.

Witnesses:
A. R. BOOKER,
E. TAYLOR.