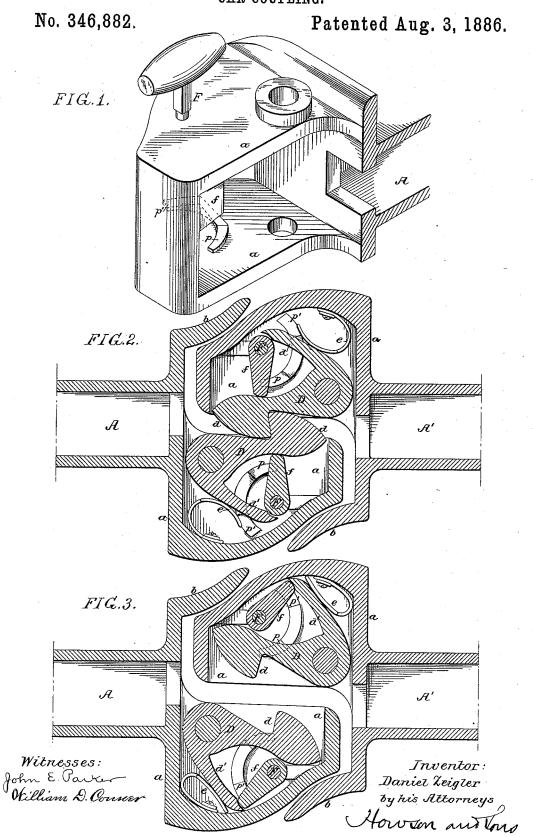
D. ZEIGLER. CAR COUPLING.



## United States Patent Office.

DANIEL ZEIGLER, OF LEWISTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES A. ZERBE, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 346,882, dated August 3, 1886.

Application filed May 21, 1886. Serial No. 202,880. (No model.)

To all whom it may concern:

Be it known that I, DANIEL ZEIGLER, a citizen of the United States, residing in Lewistown, Mifflin county, Pennsylvania, have in-5 vented certain Improvements in Car - Couplings, of which the following is a specification.

My invention consists of certain improvements in the construction of the car-coupling for which I applied for Letters Patent in the 10 United States January 11, 1886, Serial No. 188,218; and the object of my invention is to so construct the coupling as to prevent any liability of the retaining blocks or hooks becoming unlocked in either their closed or open 15 positions. This object I attain in the manner which I will now proceed to describe.

In the accompanying drawings, Figure 1 is a sectional perspective view of one of the draw-heads with the coupling block or hook 20 detached, the better to illustrate my invention. Fig. 2 is a sectional plan view of two adjoining draw heads coupled; and Fig. 3 is a similar view, but showing the coupling blocks or hooks in the open position in both draw-

25 heads.

Each draw-head A A', as in my former invention, is provided with two projecting arms, a b, leaving a recess between the two for the reception of one of the arms of an opposite 30 draw-head. The arm a is hollow for the reception of the pivoted retaining-block or coupling hook D; but instead of providing the arm b with a rounded head to enter the recess of the opposite draw-head for engagement with 35 the retaining-block of the latter, as in my former invention, I prefer to use the arm b simply as a guard-arm, as illustrated in Figs. 2 and 3, and to construct the hollow arm a of each draw-head to enter the recess of the op-40 posite draw-head, and to couple the cars by engagement of the retaining - blocks or coupling-hooks with each other, as illustrated in Fig. 2. For this purpose the outer arms, d', of the retaining-blocks are made somewhat in 45 a hook shape; but in other respects they are similar in construction to the retaining-blocks

shown in my former application, and are similarly acted on by springs e, which tend to throw the hooked arms of the block outward, while cams f, carried by vertical axes F, may act on 50 the arms d' of the retaining-block to throw the latter inward—i. e., to the open position shown in Fig. 3. These cams are so arranged with reference to the arms d d' of the retainingblocks or coupling-hooks and the pivots of the 55 latter that the blocks or hooks may be retained by the cams either in the backward or open position, as illustrated in Fig. 3, or in the forward or coupled position illustrated in Fig. 2. In order, however, to prevent any accidental 60 unlocking of the retaining blocks from either locked position—that is, in order to prevent the accidental freeing of the arms of the retaining-blocks from the cams in either position to which they may have been moved—I pro- 65 vide in connection with the cams a projection with two inclined faces, p p', on the floor of each draw-head below the cams f. These inclined projections p and p' are of such a character that when the cam f is moved to the position. Find p it will be at the better p of the sition, Fig. 2, it will be at the bottom of the inclined projection p, and when it is moved to the locked position, Fig. 3, it will be resting on the bottom of the inclined projection p'. To move away from either position, the cam 75 will thus have to travel up an incline and rise over the projection, so that any tendency of the cam becoming unlocked by the jarring of the cars is effectually prevented.

I claim as my invention—

The combination of a draw-head, retainingblock or coupling-hook, and an operating-cam, f, with a projection on the draw-head to retain the block or hook in both the inward and outward positions, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL ZEIGLER.

Witnesses:

W. V. B. COPLIN, LAFAYETTE WEBB.