G. F. SHAFER & A. C. EWART.

Car-Coupling.

No. 213,946. **Patented April 1, 1879.**

Fig. 1.

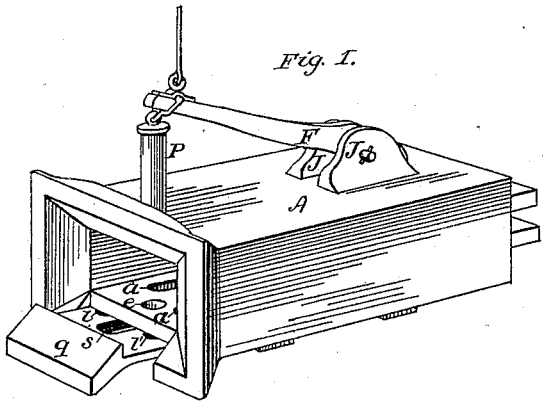


Fig. 2.

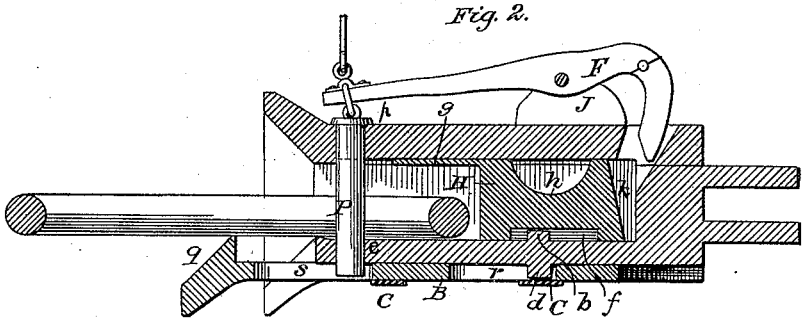


Fig. 3.

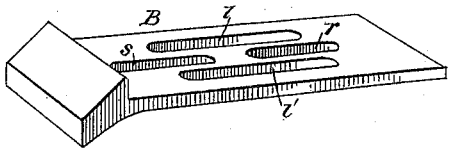
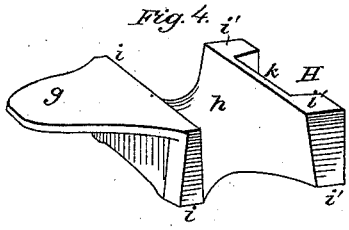


Fig. 4.



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UNITED STATES PATENT OFFICE.

GARRET F. SHAFER AND ANDREW C. EWART, OF CANASERAGA, N. Y.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **213,946**, dated April 1, 1879; application filed May 15, 1878.

To all whom it may concern:

Be it known that we, GARRET F. SHAFER and ANDREW C. EWART, of Canaseraga, Allegany county, New York, have invented a new and Improved Car-Coupling; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the coupling and link. Fig. 2 is a longitudinal vertical section. Fig. 3 is a perspective and bottom view of the sliding support. Fig. 4 shows details to be referred to.

Our invention relates to that class of car-couplings in which the draw-head contains a sliding block to sustain the pin when raised, and a sliding plate to sustain the link; and it consists in certain details of construction, as hereinafter more fully described and claimed, whereby we are enabled to strengthen and cheapen the device.

In order that those skilled in the art may make and use our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, A is the main casting of the buffer, and its bottom is provided with two parallel slots, *a a*, and an upward-projecting stud, *b*, and a downward-projecting stud, *d*, and a circular opening, *e*, at the points shown. In buffer A is a sliding block, H, having a depression, *f*, in its bottom to lie over stud *b*, and a forwardly-projecting shelf, *g*, lying close to the upper side of the box. The center of the block H is reduced greatly in size at *h*, but has square bearing-surfaces *i i i' i'*, to slide in the bumper. The rear of the sliding head has a beveled depression, K, against which abuts the end of a crank-lever, F, which passes through an opening in the buffer, and is pivoted to lugs J on the top of the casing. The forward end of lever F has attached to it by a link a coupling-pin, P, said pin passing through opening *p* in the top of the casing, and through opening *e* in the bottom of the casing, and through a slot, *s*, in a sliding-plate or link-support, B, which is held loosely against the under side of the buffer by means of plates C C, and has its front end made at *q* in general conformation with the face of the buffer. The sliding plate B is retained in place and limited in movement by the downward-projecting stud *d* on A, which passes through central slot, *r*. The plate B also has slots *l l'*, coinciding with slots *a a* in the buffer, and the weight of metal is not only reduced, but egress is afforded for any trash or extraneous matter which may get into the buffer.

When the forward end of lever F is brought up, the pin P is drawn from the draw-head, and at the same time the rear end of the crank-lever forces the sliding block forward until shelf *g* lies under opening *p* and sustains the pin, as seen in Fig. 1.

When the link is forced into the draw-head it pushes block H back, and pin P falls and secures the link. Before the car bearing the link approaches the car to be coupled the sliding plate B is pulled out, and this so sustains the link that it will enter the draw-head of the other car, and will not sag enough to strike below it.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The sliding-block H, as described, and provided on its under side with a depression, *f*, in combination with the draw-head cast with stud *b*, as shown.

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In presence of—
FRANK DAKE,
HARLIN H. HILL.