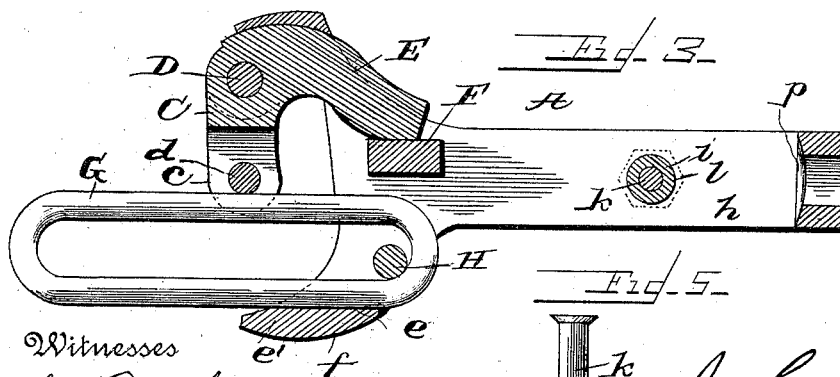
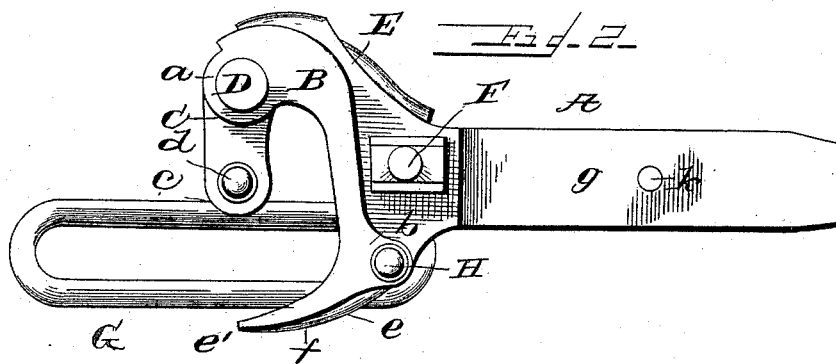
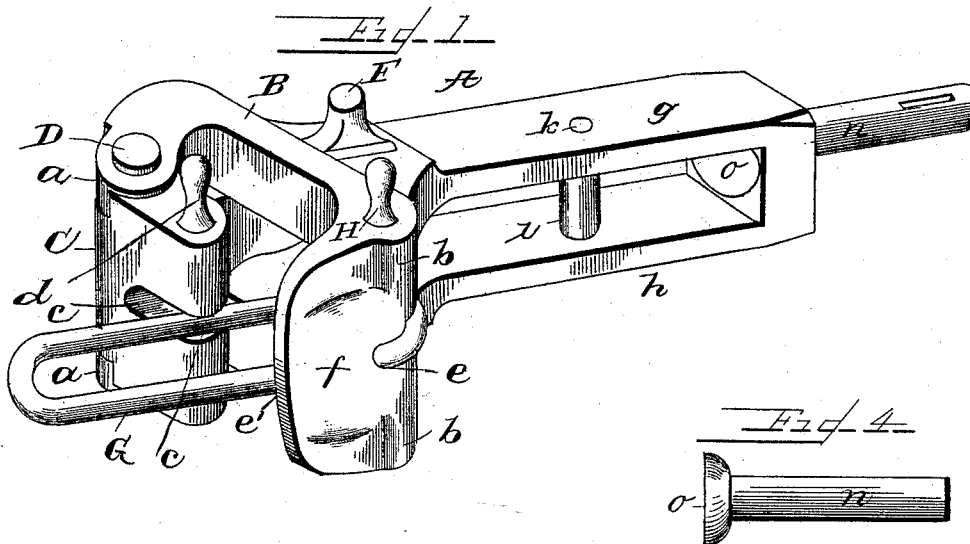


(No Model.)

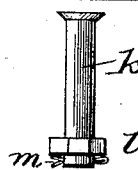
J. GREEN.  
CAR COUPLING.

No. 457,048.

Patented Aug. 4, 1891.



Witnesses  
G. A. Taubenschmidt  
H. B. Reinohl



Inventor  
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Attorneys

# UNITED STATES PATENT OFFICE.

JOHN GREEN, OF RENOVO, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO  
WM. L. HOLMAN AND JOHN MCCORD, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 457,048, dated August 4, 1891.

Application filed April 8, 1891. Serial No. 388,092. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GREEN, a citizen of the United States, residing at Renovo, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to car-couplings, and has especial reference to the master car-builders' type of vertical-plane couplers, and has for its object certain improvements on the coupler for which Letters Patent No. 448,613, and bearing date of March 17, 1891, were granted.

The invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 is a perspective of my improved coupler; Fig. 2, a top plan view; Fig. 3, a horizontal section; Fig. 4, a side view of the draft-pin detached, and Fig. 5 a similar view of the bolt for securing the spool between the side bars.

Reference being had to the drawings and the letters thereon, A indicates the draw-bar, which is provided with a head B and a coupling-hook C of the Janney type, the hook being pivotally secured to the head between lugs *aa* by a pin D, which passes through the lugs *aa* and the hook. The hook is provided with a tongue E, which at its outer end engages with a trip-pin F and raises it in the act of automatic coupling with an adjacent car, and as the tongue is pushed back into the head B it removes any foreign matter—such as dirt, snow, or ice—from the interior of the head through its open rear side. When the hook C is engaged with a similar hook on an adjacent car, the strain incident to pulling the car is brought to bear upon the trip-pin F and the pin D is relieved of the major part of the strain.

In this class of couplers it frequently occurs that the coupling-hook is broken or the lugs to which the hook is secured are broken off the head of the draw-bar, and the coupler

thus injured becomes a source of great annoyance to employes on a road and often necessitates the shifting of a car loaded with perishable freight on a siding, where it remains for several days until some means can be provided for attaching the car to a train. To prevent such an occurrence I have provided a link G, which engages with a pin H, supported in lugs *bb* on the rear side of the head and on one side of the center of the draft-line of the draw-bar. The link is made long enough to extend beyond the hook C, and rests in the slot *c* of said hook and in the supplemental slot *e*, which is an extension of the main slot in the head of the draw-bar, and places the major portion of the link on one side of the draw-bar within easy reach of trainmen. By this construction the link is used when the hook C is closed and out of the way, and is secured against moving about laterally by the pin *d* engaging it on one side and the link resting against the metal of the horn *e'* of the head. The link may be operated entirely from the rear side of the horn of the draw-head, which serves as a guard to the trainmen and reduces the danger incident to coupling when the hands and arms are required to be placed in front of the draw-head.

To compensate for the extension *e* of the link-slot in the head, the rear side of the head is re-enforced at *f*.

Between the bars *gh* is a spool *i*, supported upon a bolt *k*, which extends through both of said bars and at its lower end is provided with a washer *l* and a pin *m* for securing the bolt in place. The spool prevents the bars from being sprung toward each other in use and is made removable to facilitate the introduction of the usual draft pin or bolt *n* through the draw-bar. The head *o* of the draft-pin is convex on its inside and engages with a concave seat *p* in the end of the draw-bar to admit of lateral motion of the draw-bars in rounding curves in a road-bed and relieve the coupling of the strain incident thereto.

It is obvious that the pin *d* can be supported on either side of the draw-bar by providing lugs to receive it, and that the lugs may be no thicker than the sides or bars *gh* at their

junction with the head, my object being to provide means for coupling a coupler when the hook is closed and out of the way.

Having thus fully described my invention, what I claim is—

1. In a car-coupler, the combination of a head having a main slot and a supplemental slot forming an extension of the main slot in the horn of the head, a swinging hook provided with a slot and a pin passing through the slot, a link separate from the draw-head and supported in said supplemental slot and in the slot in the hook and secured against lateral movement by the horn of the draw-bar on one side at its rear end and the pin in the hook on the opposite side of the link, lugs on the rear of the head and on one side of the

draw-bar, and a pin securing the link to the draw-head.

2. In a car-coupler, a spool detachably secured between the bars of the draw-bar, in combination with a removable bolt which passes through said bars and the spool.

3. In a car-coupler, a draft-pin having a head provided with a convex inner surface, in combination with a concave seat in the rear end of the draw-bar.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN GREEN.

Witnesses:

D. C. REINOHL,  
WM. E. DYRE.