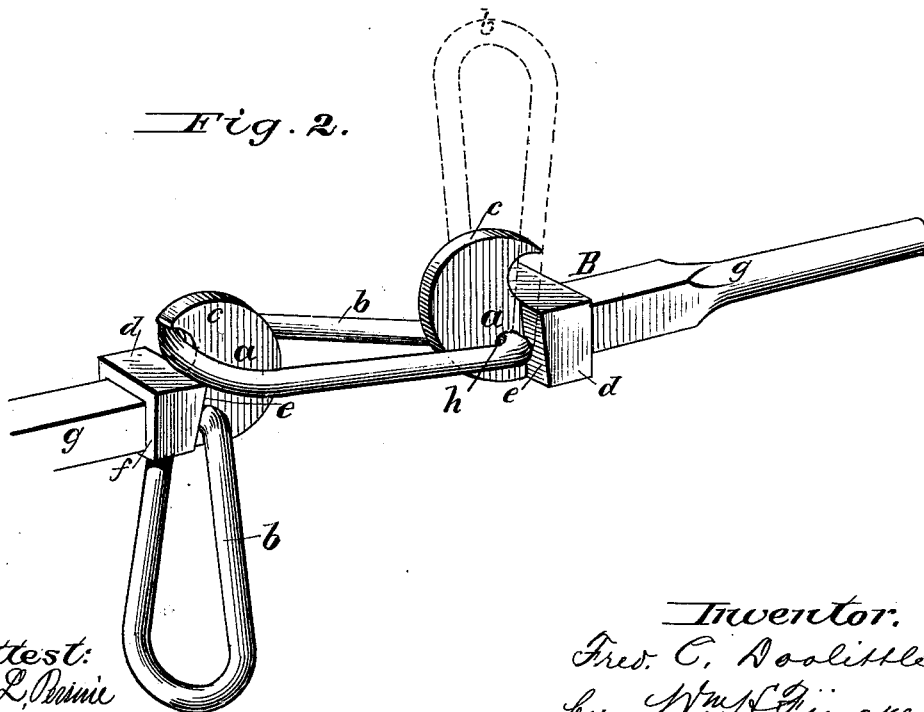
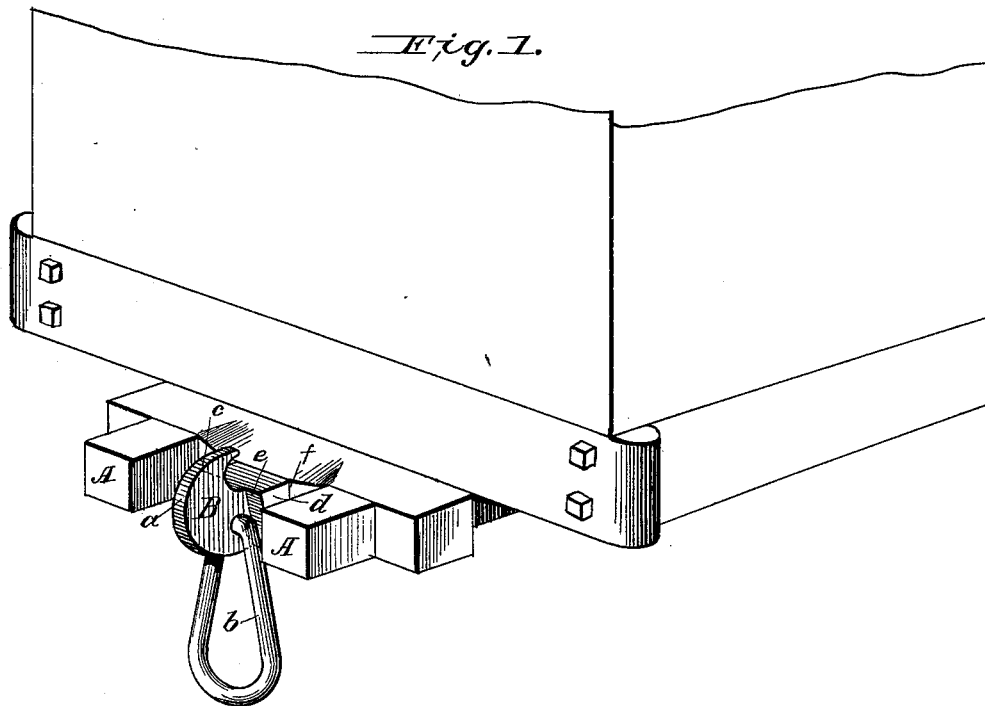


F. C. DOOLITTLE.
Car-Coupling.

No. 220,814.

Patented Oct. 21, 1879.



Attest:
W. L. Davis
Geo. M. Finckel

Inventor:
Fred. C. Doolittle
by Wm. H. Finckel
his Atty.

UNITED STATES PATENT OFFICE.

FREDERICK C. DOOLITTLE, OF SHERBURNE, NEW YORK.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **220,814**, dated October 21, 1879; application filed September 13, 1879.

To all whom it may concern:

Be it known that I, FREDERICK C. DOOLITTLE, of Sherburne, in the county of Chenango, in the State of New York, have invented a new and useful Improved Car-Coupling, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part hereof.

My invention relates to that class of car-couplings usually employed upon coal-cars, and constructed of a hook-shaped draw bar or head and an attached link.

Heretofore such couplings have been defective by reason of the cumbrousness of their draw-head, the complicated attachment of the link, or the expensive means employed to retain the link in upright position ready for connection or coupling with an approaching car.

By my invention I overcome these defects or objections, and produce a simple, effective, easily-manipulated, and inexpensive coupling applicable alike to new cars and those already in use, and to the latter class without altering the framing.

The invention consists in a draw head or bar forged or similarly produced from a bar of metal with a hook-shaped end, a shouldered collar to abut against the framing or sill of the car on one face and support the link in upright position upon the other, and with a tang by which it is connected or secured to the sill or framing, and having a one-piece link inserted through a hole in the hook and welded therein, all as hereinafter more particularly set forth and claimed.

Referring to the before-mentioned drawings, Figure 1 is a perspective view of one end of a coal-car with my coupling attached; and Fig. 2 is a perspective view of the couplings detached, a link being shown in broken lines in upright position supported by the shouldered collar.

The car-body and its sill or framing may be of any ordinary construction; but it is desirable to employ dead-blocks A, between which the coupling B is arranged, so that when the cars come together the couplings may not be jammed, the shock being taken by the dead-blocks, which for this purpose extend beyond or are about flush with the ends of the draw-head, as clearly shown in Fig. 1.

The couplings are composed of a draw head or bar, *a*, forged or similarly formed, and a

one-piece link, *b*. The draw-bar has a terminal hook, *c*, with which the link of the adjacent coupling connects to couple the cars. In the rear of this hook is a collar, *d*, having a shoulder, *e*, against which the link rests and is supported when turned up vertically to be in readiness for coupling with an approaching car.

This simple shoulder has been found perfectly effective in supporting the link, and by its use all hooks, tongues, or other link-supporting devices are dispensed with, whereby the construction is greatly simplified and cheapened—considerations of importance with railroad officials. The opposite face, *f*, of this collar abuts against the sill or other portion of the framing, and serves to strengthen and brace the bar against rearward displacement. The tang *g* of the draw-bar extends rearwardly under the car, and is secured there in any ordinary or approved manner.

The link *b* is secured to the draw bar or head by passing it through a hole, *h*, in said bar and welding its ends together. This link is, preferably, made larger at its free end, as shown, so that when elevated, as in broken lines, Fig. 2, it will be top-heavy in order to facilitate coupling, as, if top-heavy, the concussion or jar of the cars, upon coming into contact, will cause such link to fall, and thus render the coupling automatic.

In some cases it will be found advisable on the score of economy to dispense with the collar *d* and substitute for it a pin passed through the draw-head.

I do not claim, broadly, a hook-shaped draw head or bar with an attached link and means for supporting such link vertically; but

What I do claim is—

The improved car-coupling described, composed of a draw-bar, *a*, having a collar, *d*, formed thereon, with a link-supporting shoulder, *e*, and a shoulder, *f*, to abut against the car-sill, the hook *c* and tang *g* integral with said draw-bar, in combination with the link *b*, substantially as shown.

To the above specification of my invention I have signed my name this 2d day of September, A. D. 1879.

FRED. C. DOOLITTLE.

Witnesses:

W. G. MURPHY,
W. W. LOBDELL.