(No Model.)

F. W. PARSONS.

CAR COUPLING LINK.

No. 348,575. Patented Sept. 7, 1886.

Fig 1

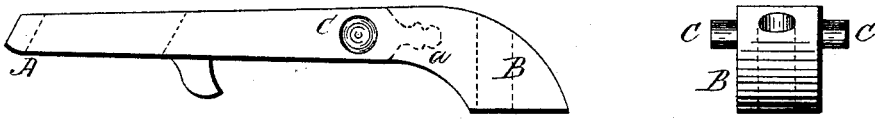
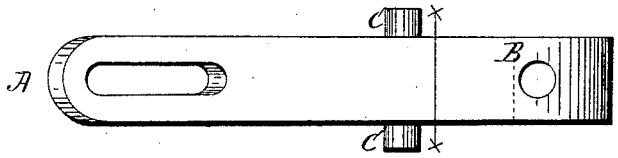


Fig 2



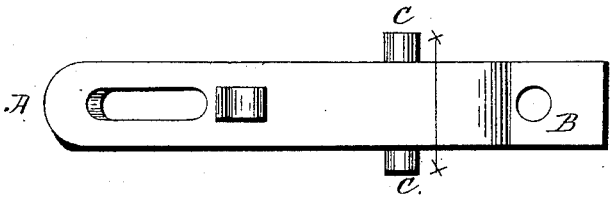


Fig 3

WITNESSES

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FRANCIS W. PARSONS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO WINSLOW WARREN, OF DEDHAM, MASSACHUSETTS.

CAR-COUPLING LINK.

SPECIFICATION forming part of Letters Patent No. 348,575, dated September 7, 1886.

Application filed May 21, 1885. Renewed June 21, 1886. Serial No. 205,840. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS W. PARSONS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Railway-Car Coupling-Links; and I do hereby declare the following to be a full and complete description of the same.

The object of the invention above alluded to is to reduce the cost of the manufacture of the coupling-link, which heretofore has been made entirely of cast or forged steel, or of iron, preferably of steel, an expensive material, and in view of the peculiar shape of the link an article of no little difficulty to forge.

To avoid said expense and difficulty is the special purpose of this invention, and which consists in forging that portion of the link subject to the most wear and severe strain of cast-steel or of wrought-iron, and the rest part of the link of cast-iron, which, being exposed to but little wearing and straining influences, answer the purpose full as well as though made of more expensive metal. It will be obvious that this union of forged metal and cast-iron must greatly reduce the expense of the article over one forged wholly of steel or of iron, as aforementioned.

That the manufacture of the above said link may be fully understood, reference will be had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of the coupling-link. Fig. 2 is a top view of the same, showing that portion of the link that is forged metal and that of cast-iron. Fig. 3 is an under side view of the link.

Like letters of reference denote like parts in the drawings.

The link alluded to is the one forming a part of the Ames car-coupling, patented to G. H. Ames, October 27, 1874, No. 156,326.

Fig. 1 represents a side view of the link.

By the use of suitable dies that portion of the link extending from the end A back to about the line *x x* is forged, preferably, of cast-steel, and that portion, B, of the link beyond said line is of cast-iron, or so much of the link beyond the said line as will counterbalance the front end, A, when the link is held in the buffer-head and supported on the trunnions C C.

That the forged part of the link may have cast thereon the cast-iron portion, so that it may firmly and securely become united therewith, the end of the steel-forged portion A has formed thereon grooves and shoulders, forming a head immediately back of the trunnions, as seen by the dotted lines *a* in Fig. 1.

It is not essential that the head should be of the exact shape shown in the drawings, as any other suitable form or forms will do, so that the metal, when cast, will form a locking union with the part A, to prevent it from becoming loose and detached therefrom.

Practically the forged part A is laid in a molding-flask, and in connection therewith a pattern of the end B. After properly tamping the sand in the flask, &c., the pattern is drawn, leaving the part A in the flask. The melted iron is then poured into the mold of the pattern, filling the grooves and forms in and about the head *a* of the link, causing a connection of the two metals, strongly uniting the two parts of the link by the grooves and shoulders of the head, around and into which the cast metal flows, as indicated by the dotted lines *a* in Fig. 1, thereby completing the link, the one part being of forged or cast steel or of wrought-iron, and the other being ordinary cast-iron, the said lines *a* and *x x* indicating the juncture of the two metals, as above mentioned.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described railway-car coupling-link, the anterior end A of which consists of cast or forged steel or iron, and the opposite end or counter-balance, B, consisting of ordinary cast-iron, the two metals being united in the manner substantially as herein described, and for the purpose specified.

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

FRANCIS W. PARSONS.

Witnesses:
J. H. BURRIDGE,
G. J. HARDWAY.