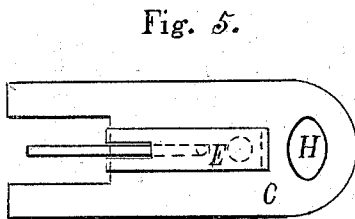
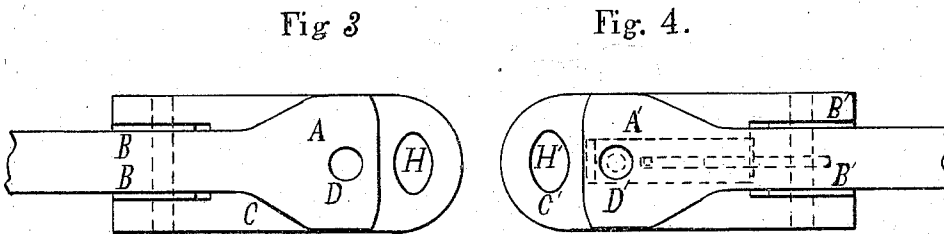
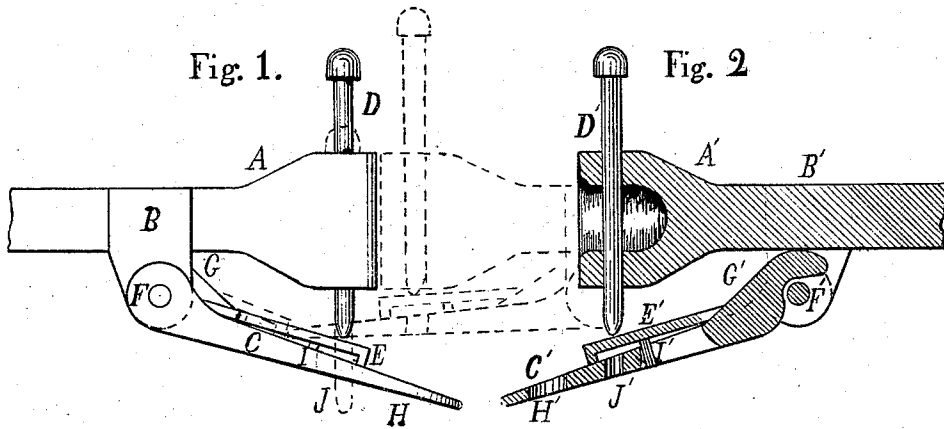


O. W. CLARK.
Car-Couplings.

No. 147,553.

Patented Feb. 17, 1874.



WITNESSES

Nathan Mays Withington

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ORRIN W. CLARK, OF NEWBURYPORT, MASSACHUSETTS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **147,553**, dated February 17, 1874; application filed July 21, 1873.

To all whom it may concern:

Be it known that I, ORRIN W. CLARK, of Newburyport, in the county of Essex and State of Massachusetts, have invented an Improvement in Car-Couplings, of which the following is a specification:

My invention relates to a self-acting car-coupling; the object of my invention being to provide a car-coupling that will lock automatically, and one that can be easily applied, if desired, to the shackling apparatus now in common use.

Figure 1 is an elevation of the shackling arrangement, with buffer embodying my invention. Fig. 2 is a vertical horizontal section of the same. Figs. 3 and 4 are plan views. Fig. 5 is a plan of the car-coupling arrangement detached from the buffer.

A A' are the buffers, similar to those now in common use. B B' are hangers attached to the buffers, to hold the shackling-links. C C' are the shackling-links. D D' are the shackling-pins. E E' are slides, which hold up the shackling-pins previous to coupling. F F' are pivots for the links, so that the latter may rise and fall. The links C C' are prevented from falling too far by the stops shown. Previous to coupling the cars, the pins D D' are raised, and the slides move down, so that the pins may rest upon them. The slides E E' are free to move along the links, being regulated by the guides G G' and the pins I I', these latter pins moving in the slots shown. The cars then coming together, the links C C' pass the one over the other, according as one may be slightly higher than the other, said link pushing up the opposite slide, so that the

shackling-pin which rested upon said slide drops down, passing through the opposite link, and also through one of the holes J J' of its own link. The manner of this operation is indicated in the drawing by the dotted lines between Figs. 1 and 2; where the coupling arrangement and buffer of Fig. 2 are represented as having passed to those of Fig. 1.

By this operation, the cars are securely coupled, and may freely change relative position to each other, as may be the result of the unequal movement of the cars, without any injurious strain to the coupling parts.

The advantages of my invention are: The effectually avoiding personal exposure in coupling cars; the simplicity of the device, being of few parts and of light weight; and it being an arrangement that is easily applied to cars as now built and in common use.

It is only necessary to attach the hangers B B' to the present form of buffers, which, with the few parts described, make the self-coupling arrangement complete. By using the buffers of the present form, the cars may be coupled as is done now, if occasion requires.

I claim as my invention—

1. The links C C', in combination with the hangers B B' and buffers A A', substantially as and for the purpose hereinbefore set forth.

2. The slides E E', in combination with the links C C' and pins D D', substantially as and for the purpose hereinbefore set forth.

ORRIN W. CLARK.

Witnesses:

NATHAN NOYES WITHINGTON,
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