

B. ATKINSON.
Car-Couplings.

No. 140,667.

Patented July 8, 1873.

fig. 1.

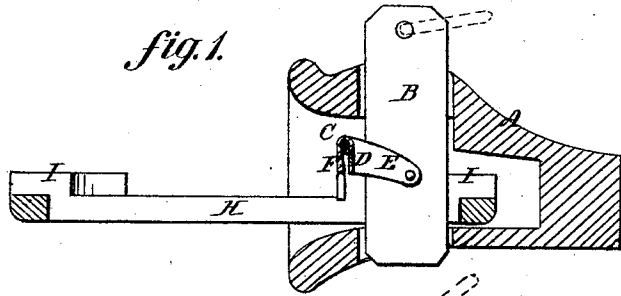


fig. 2.

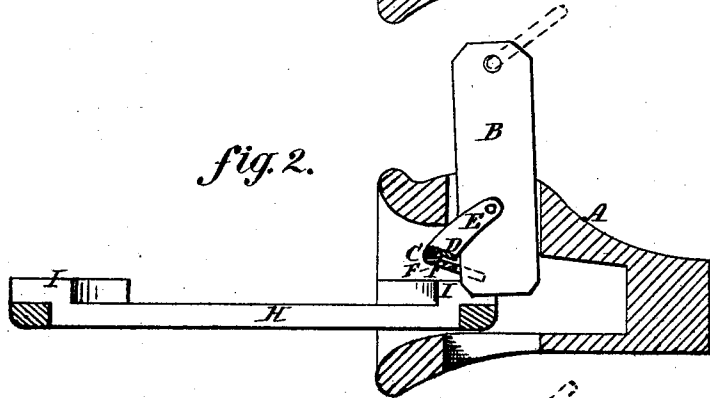


fig. 3.

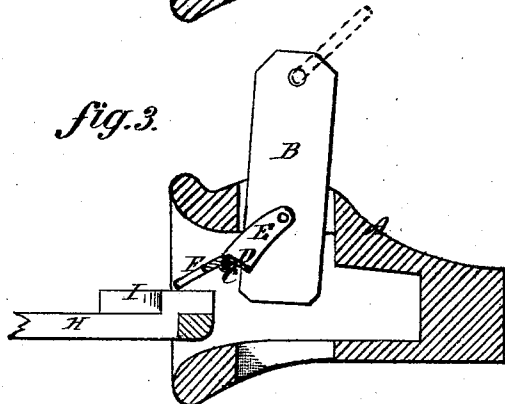
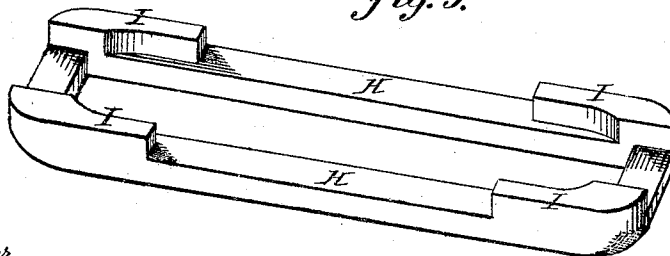


fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

BENJAMIN ATKINSON, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **140,667**, dated July 8, 1873; application filed June 9, 1873.

To all whom it may concern:

Be it known that I, BENJAMIN ATKINSON, M. D., of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification:

My invention relates to couplings for railway cars; and the object thereof is to obtain a coupling in which the holding-pin will be automatically raised and let fall by the entrance of the coupling-link within the draw-head; and my improvement therein consists of separate pendent hinged plates or wicket sections capable of movement both inward and outward, in combination with the lifting device, and a link to be withdrawn when the pin is raised without interfering with the connecting devices by which the pin is automatically raised to effect the coupling, while the the pendent wicket-sections, being separate, allows them each to yield independent of the other, to prevent the possible binding of the link in being entered or withdrawn from the draw-head; also, in the combination of a hinged back plate, and arms uniting it to the coupling-pin, with the front separate wicket-section and the coupling-link, constructed and arranged for joint operation as will be hereinafter described.

In the accompanying drawings, Figure 1 represents a vertical section of a draw-head coupled with the link; Fig. 2, a similar section, showing the link in the position when coupling; Fig. 3, a similar section, showing the link in the position when being uncoupled; Fig. 4, a front view of the draw-head and its lifting device; and Fig. 5, a view in perspective of the coupling-link.

The draw-head A is made in the usual manner for use with a vertical coupling-pin, B, passing down through guide-openings in the head to couple the link. A strong horizontal rod, C, is secured across the upper portion of the mouth of the draw-head A in advance of the coupling-pin B, and upon this rod C is hinged a back plate, D, which hangs down when the coupling is made. From this plate D two arms, E, extend back and are pivoted to each side of the coupling-pin B, so as to allow the latter to rise and fall by the turning of the plate D upon its hinges. In advance of this plate D, and upon its rod C, two wicket-plates, F G, are hinged so as to

hang therefrom. These plates F G occupy positions outside of the range of the coupling-pin B to allow them to be moved inward without striking it, as shown in Fig. 4, and they are independent of the armed plate D, to allow them to have an outward movement to permit the withdrawal of the link H without interfering with the pin and its connected plate. The coupling-link H has raised projections I on each side of its ends, and in coupling these projections strike the wicket-plates F G, which, bearing against the back plate D, turns it inward, and, by the connection of its arms E with the pin, raises the latter and holds it up until the link projections I pass the wicket-plates F G, when the pin immediately falls into the opening in the link, and makes the coupling.

The wicket being in separate sections gives the advantages of readily yielding without regard to the angle or position of the link in striking them, so that there will be no binding of the parts; for if one corner of the link should strike one of the wickets, the device will work as well as if both had been squarely struck. These advantages obtain also in withdrawing the link, as the projections of the latter will strike and open the wickets outward in any position of the link.

The link projections I should be long enough to hold up the pin until the link is in position to receive it; and in lifting the pin they pass on each side of the latter.

To uncouple the cars the pin B must be raised by hand.

The separate wickets and the pin-connecting parts must be made strong enough for the purpose.

Having described my invention, I claim—

1. The independent wicket-sections F G, in combination with the lifting device D E, the pin B, and the link H having projections, essentially as described.

2. The combination of the hinged back plate D, arms E, pin B with the front wicket-sections F G, and coupling-link having projections I, the several parts being constructed and arranged for joint operation substantially as described.

BENJAMIN ATKINSON.

Witnesses:

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