HIRAM PLUMB.

Improvement in Car-Couplings.

No. 115,236. Patented May 23, 1871.

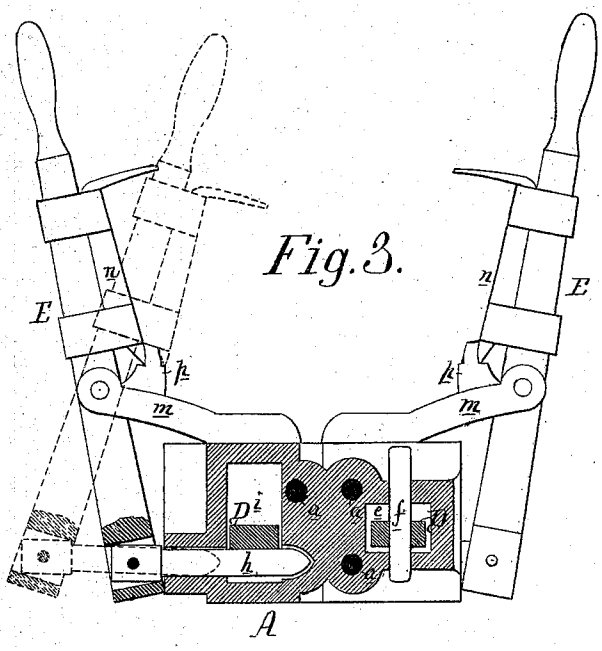

Fig. 3.

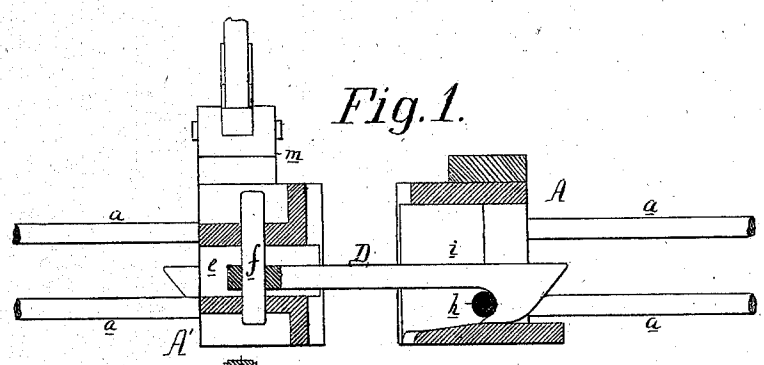

Fig. 1.

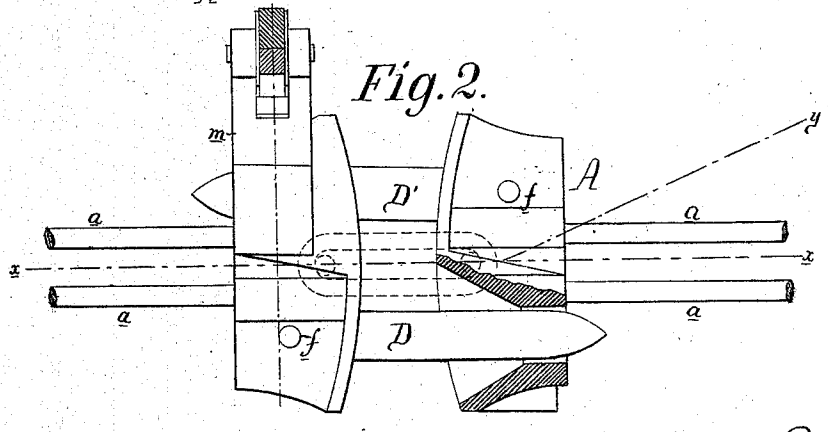

Fig. 2.

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HIRAM PLUMB, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO WILLIAM A. DROWN, JR., AND EDWARD EVANS, OF SAME PLACE.

Letters Patent No. 115,236, dated May 23, 1871.

IMPROVEMENT IN CAR-COUPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

I, HIRAM PLUMB, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improved Car-Coupling, of which the following is a specification.

Nature and Object of the Invention.

My invention consists of mechanism for coupling railway cars, too fully described hereafter to need minute preliminary explanation.

Description of the Accompanying Drawing.

Figure 1 is a longitudinal section of my improved car-coupling;

Figure 2, a plan view; and

Figure 3, a transverse vertical section on the line 1 2, fig. 2.

General Description.

A and A′ are the two cast-iron coupling-heads, one being attached to the draw-bars *a* of one car, and the other to the draw-bars of another car.

Into a recess or opening, *e*, fig. 1, in each head, projects one end of a link, D, which is loosely connected to the heads by a vertical pin, *f*, the opposite hooked end of the link projecting through an opening, *i*, in the other head, and being arranged to catch onto a horizontal pin, *h*, so connected to a lever, E, that, by operating the latter, the pin can be moved to and fro in a hole in the head, and can be so adjusted as to extend across the opening *i*, or to be entirely withdrawn from the same.

The lever is hung to a pin on a bracket, *m*, projecting from the head, and is provided with a sliding latch, *n*, which, when depressed, bears against a projection, *p*, on the bracket *m*, and thus locks the lever and prevents the withdrawal of the pin *h* from the opening *i* until the latch is raised and the lever thereby set at liberty.

The two heads are precisely alike, each being furnished with the above-described hooked link D, pin *h*, and latch-lever E.

The links are so inclined at the end that, on moving the cars toward each other, the link of one head will slide over and catch on the pin *h* of the other head, the two links being thus simultaneously self-coupling.

It will be observed, on referring to fig. 2, that the two links D D′ are situated one on each side of and at an equal distance from the central line *x x* of the cars.

When the cars are traversing a straight track, and are consequently in line with each other, both links serve as coupling mediums, as the link of one head is hooked onto and in contact with the pin *h* of the other; but if one of the cars, say that to which the head A is attached, suddenly passes onto a curve in the direction of the dotted line *y*, fig. 2, for instance, the hook of the link D will project beyond and be free from contact with the pin *h* of the link D′, and will cease to act as a drag-link, the link D′ being the sole coupling medium, through which the first car entering on the curve drags the other car after it; and the situation of this link outside the central line *x x* is such that the first car to enter the curve will have a tendency to draw the other car laterally in the direction of the curve which it has to traverse.

It will thus be seen that, by the arrangement described of two coupling-links, they are the means by which one car traversing a curve directs the next car laterally in its proper course.

Owing to the inclined projections of the links D being on the under sides of the same, instead of at the side edges, as heretofore, the action of the links depends on their own gravity, instead of on the uncertain action of springs.

The mode of uncoupling the cars by operating the levers E will be readily understood without further explanation.

If desired, the heads may be so constructed as to receive an ordinary single link, shown by dotted lines in fig. 2, the said link to be used when one car is provided with the above-described mechanism, and has to be coupled to a car provided with the ordinary coupling appliances.

Claim.

A coupling consisting of two heads, A A′, each of which has a recess with a flaring mouth, a horizontal pin, *h*, operated by a lever, E, hung to the head, and a vertical pin, to which is hung a link, D, having a beveled outer end and a hooked projection beneath the same, all as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HIRAM PLUMB.

Witnesses:

GEO. J. MILLS,

C. A. SELDEN.