

F. A. FLEMING.
Car-Couplings.

No. 143,752.

Patented Oct. 21, 1873.

Fig. 1.

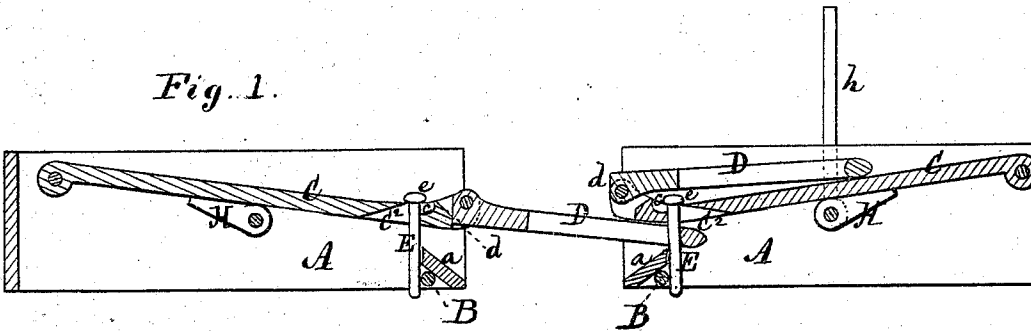
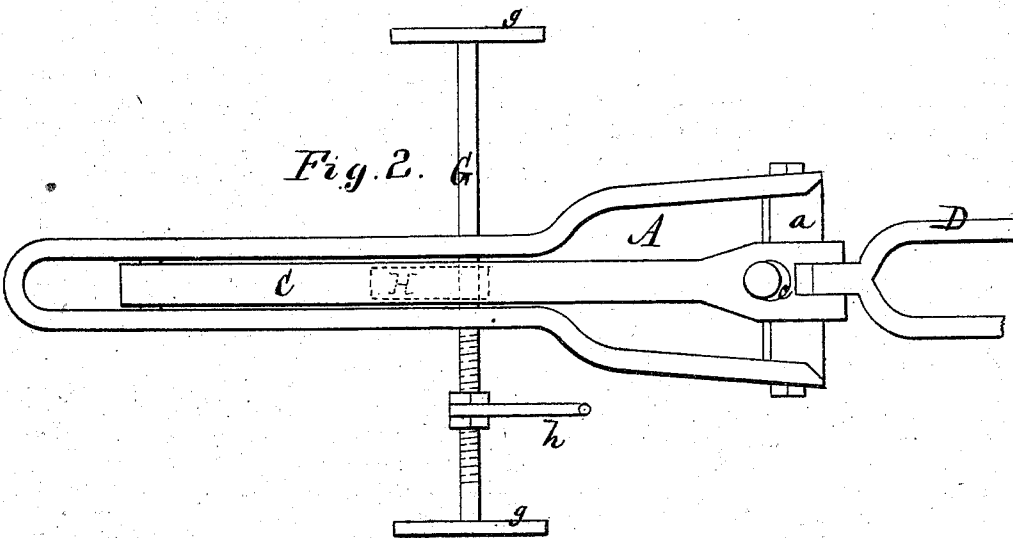


Fig. 2.



Witnesses

E. H. Bates
Chas. F. Steele

Inventor.

Frank A. Fleming,
Shipman & Osmer + Co -
Attorneys,

UNITED STATES PATENT OFFICE.

FRANK A. FLEMING, OF CURWENSVILLE, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **143,752**, dated October 21, 1873; application filed March 12, 1873.

To all whom it may concern:

Be it known that I, FRANK A. FLEMING, of Curwensville, in the county of Clearfield and State of Pennsylvania, have invented a new and valuable Improvement in Car-Coupler; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

My invention relates to certain improvements in car-couplings; and it consists in the peculiar construction and arrangement of parts as hereinafter particularly described.

In the drawing, A represents a draw-head, made of cast-iron in two or more pieces, secured together by bolts. The upper side of the draw-head is entirely open, and the inclined lower side of the mouth is formed by a plate, *a*, placed between the sides, with a bolt, B, passing under it and through the two sides, and secured by a nut. The plate *a* is made of cast-iron, and is held in place by being clamped tightly between the side pieces, so that, in case of breakage, it may be readily removed and replaced—said plate having a small lug or projection formed on each end, fitting into corresponding depressions in the side pieces, so as to insure its being held in place. The bolt B is placed about in a vertical line with the rear edge of the plate *a*, so as to receive a portion of the strain from the coupling-pin; or, if there be any variation, the bolt B should be slightly to the rear, so as to receive the greater part of the strain in preference to the cast-iron plate. C is a bar, the rear end of which is pivoted between the two sections of the draw-head, near the rear end of said draw-head. At a point near the mouth of the draw-head a link, D, is hinged to the bar by a shoulder-joint similar to that used in the attachment of the blades of pocket-knives to their handles, so that the link is free to swing upward and describe a complete semicircle in one direction, while the shoulder-joint *d* holds it in line with the bar C, and prevents it from hanging down, so that the link is held in such a position as to insure its entering the mouth of the opposite draw-head when the cars are being coupled. In the bar C, immediately in rear of the hinge-joint, is a hole, C², for the coupling-pin E, which is formed with a rounded

head, *e*. On the under side of the bar C the hole C² slopes backward, so as to allow the pin to swing back far enough for the link to pass the lower end when the cars are being coupled. On the upper side of the bar, in front of the hole C², is a crescent-shaped cavity or depression, *c*, in which the pin-head *e* sinks when the pin swings back to allow the link to pass. G represents a shaft, which passes through the draw-head under the bar C, and has a hand-wheel, *g*, attached to each end. On the shaft G, between the two sides of the draw-head, is a toe-lifter, H, for lifting the bar C to disengage the link and coupling-pin. The shaft G may be operated by the hand-wheels *g*, or by a lever, *h*, projecting upward from the shaft, so as to be operated from the platform.

When the cars are to be coupled, one of the links may be turned back out of the way, as shown in Fig. 1, if desired; but it is best to have both links in a horizontal position, so that when the cars come together to be coupled, if any difference exists in the height of the respective draw-heads, one of the links is sure to engage with the pin in the opposite draw-head, as the link in the lowermost draw-head will pass under the bar in the opposite one and engage with the coupling-pin therein.

When it is desired to bring the cars together without coupling, as for the purpose of pushing or backing, both links may be turned back out of the way, so as to prevent their engagement with the pins.

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

1. The bar C, pivoted at its rear end to the draw-head, and carrying the link D at its front end, hinged thereto by the shoulder-joint *d*, substantially as shown and described.

2. The swinging coupling-pin E, with its rounded head *e* engaging with the crescent-shaped depression *c* and the inclined hole C² in the lower side of the bar C, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK A. FLEMING.

Witnesses:

GEO. E. UPHAM,
JOS. B. LOOMIS.