2 Sheets—Sheet 1.

H. H. POTTER.

Car-Coupling.

No. 209,835. Patented Nov. 12, 1878.

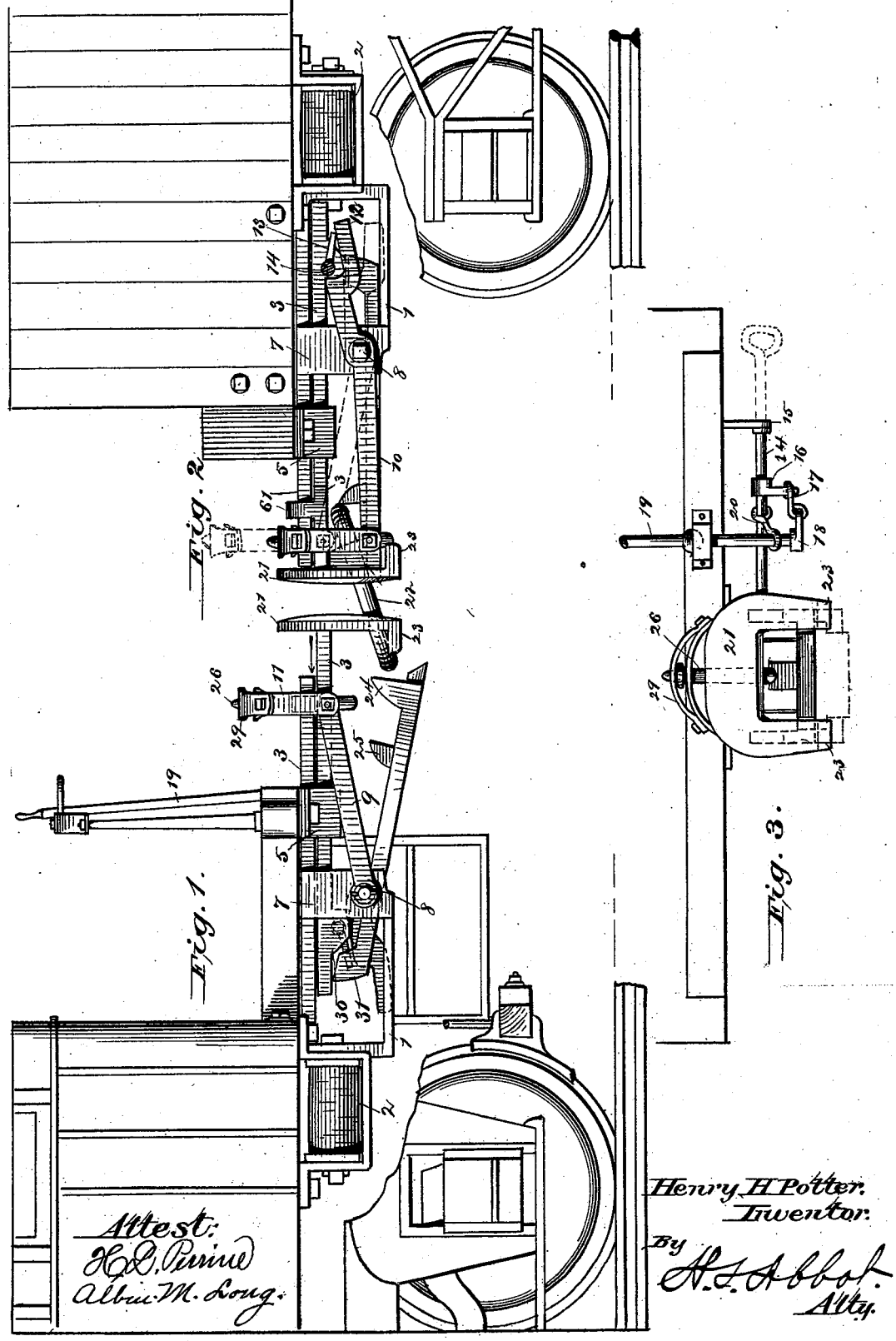

Fig. 1.

Fig. 2.

Fig. 3.

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2 Sheets—Sheet 2.

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Car-Coupling.

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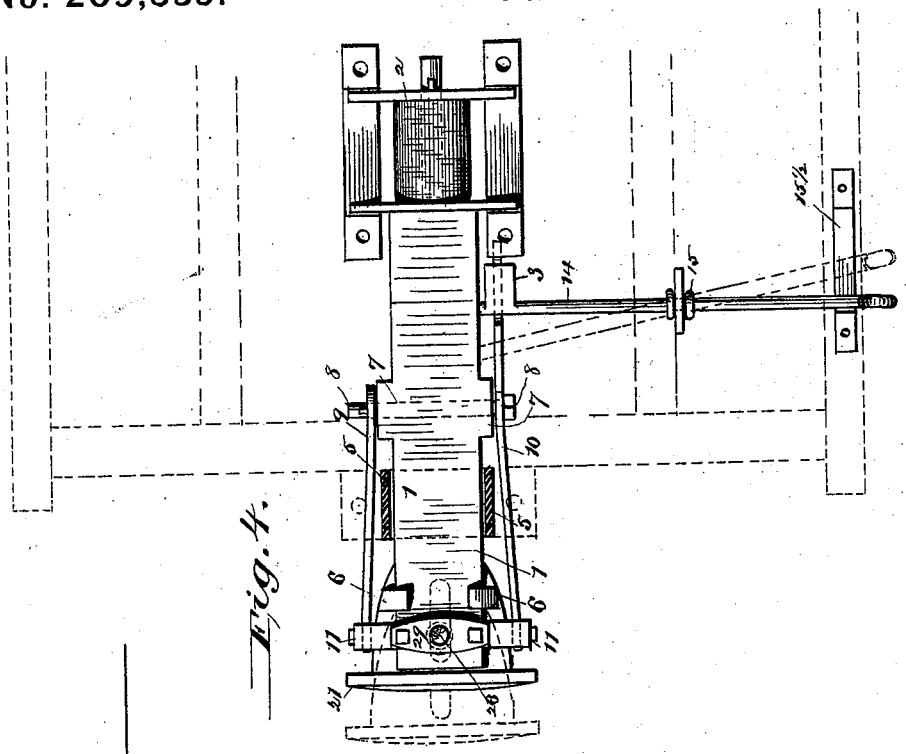

Fig. 4.

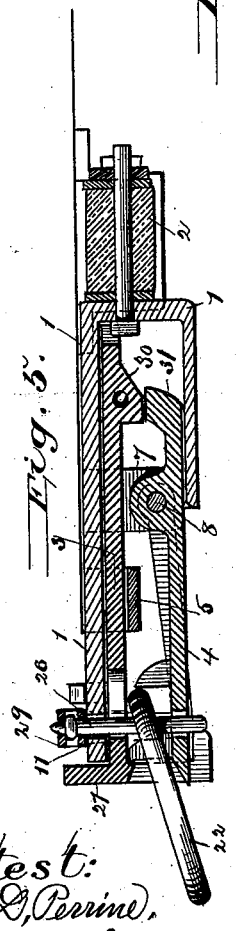

Fig. 5.

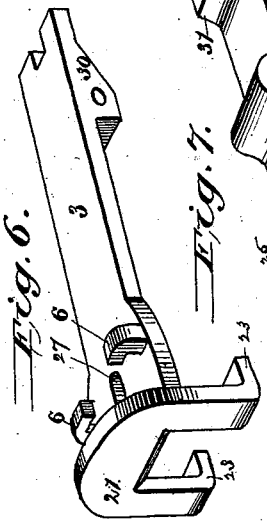

Fig. 6.

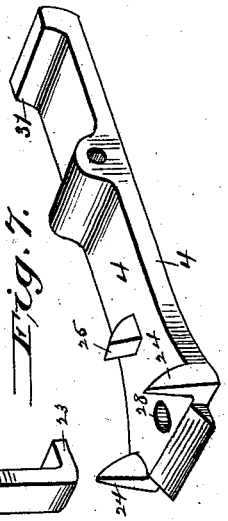

Fig. 7.

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UNITED STATES PATENT OFFICE.

HENRY H. POTTER, OF STERLINGVILLE, NEW YORK.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **209,835**, dated November 12, 1878; application filed May 3, 1878.

To all whom it may concern:

Be it known that I, HENRY H. POTTER, of Sterlingville, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to certain improvements in car-couplings, and is designed as an improvement on a car-coupling for which Letters Patent No. 145,446 were granted to me December 9, 1873; and the invention consists in the construction and arrangement of parts, which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a side elevation, showing a lever for operating the draw-head and coupling-pin while standing on the platform of the car, also showing the pivoted part of the draw-head lowered ready to receive the coupling-link. Fig. 2 is a side elevation, with the operating-lever and its supports removed from the car, showing the coupling-link held in position by the draw-head. Fig. 3 is a front view of the draw-head shown in Fig. 1. Fig. 4 is a top view of the draw-head shown in Fig. 2, with the body of the car shown in dotted lines. Fig. 5 is a central vertical longitudinal section through the draw-head and its supporting mechanism. Fig. 6 is a perspective view of the upper or horizontally sliding part of the draw-head, and Fig. 7 is a perspective view of the lower part of the draw-head.

In the accompanying drawing, 1 denotes the draw-head frame, constructed in any suitable manner to accommodate the parts hereinafter described in detail. Behind this frame 1 is arranged a cushion, 2, designed to relieve or ease off the pressure on the frame when two draw-heads impinge in making up a train of cars. The cushion may be supported or held by any desired mechanism secured to the bottom of the car.

The draw-head is made in two parts—an upper or horizontally-sliding part, 3, and a lower or pivoted vertically-moving part, 4. The upper part, 3, of the draw-head and forward end of the frame 1 is held by a strap, 5, or other suitable mechanism, and secured to the bottom of the platform or end of the car. This upper part, 3, near its forward end, is constructed with two lugs, 6, having right-angle extensions which rest on top of the forward end of the frame 1, which is beveled to receive them, and serve to keep this part 3 at all times in proper relation with the frame 1. The lower part, 4, of the draw-head, a suitable distance back of its center, is pivoted between two ears, 7, extending down from the upper part of the frame 1, as shown in Fig. 5 of drawing. The pin 8 or fulcrum of the lower part, 4, extends out beyond the ears 7, and supports on one side an arm, 9, and on the other a lever, 10. The forward end of the lever 10 and arm 9 are secured to the coupling-pin frame 11. The back end of the lever 10 is constructed with a projection, 12, as shown in Fig. 2 of drawing, to accommodate a flange, 13, on the operating-lever 14.

The inner end of the side lever 14 is secured in any suitable manner to the upper part, 3, of the draw-head, and is also centrally pivoted at 15 to the bottom of the car, and its outer end held by an elongated slide, 15½.

The construction shown in Fig. 3 of drawing may be used when desired. In this case the operating-lever only extends to the pivotal point 15, and is provided with a crank, 16, connecting by a link, 17, with a like crank, 18, secured to the lower end of a vertically-arranged lever, 19, for operating the draw-head while standing on the platform of the car. The levers 14 and 19 are provided with the further connection of a stiff link, 20, which serves to convey the sliding movement to the upper part, 3, of the draw-head, while the cranks 16 and 18 serve to provide the lever 14 with the required torsional movement by which the lower part, 4, of the draw-head is operated.

The upper part, 3, of the draw-head is provided with a bumper or face, 21, having a suitable opening to receive the coupling-link 22. This face also has two right-angle projections, 23, for supporting the forward end of the lower part, 4, when the draw-head is closed. The lower part, 4, is provided on each side, near its forward end, with projections 24, to guide the link back in place, and a lug, 25, which serves

as a stop to receive the link 22 from an approaching draw-head, or as a shoulder to hold the link 22 and prevent it from sliding back in the draw-head when the bumpers or faces 21 impinge in making the connection. The coupling-pin 26 passes down through the frame 1 and an elongated slot, 27, in the upper part, 3, (shown in Figs. 4 and 6 of drawing,) into a suitable hole, 28, in the lower part, 4. (Shown in Fig. 7 of drawing.) The coupling-pin 26 is held in place by a suitable band or strap, 29, bolted or otherwise detachably secured to the coupling-pin frame 11.

When it is desired to place the coupling-link in the draw-head, the lever 14 is turned until the flange 13 forces the projection 12 of the lever 10 down, as in Fig. 1, and by dotted lines in Fig. 2 of drawing. This movement elevates the coupling-pin 26 to the position shown in Fig. 1 of drawing; then, by forcing the outer end of the lever 14 back, as shown by dotted lines in Fig. 4 of drawing, and at the same time turning the lever so as to bring the flange 13 to a horizontal position, the upper part, 3, of the draw-head is forced out until the lower part, 4, is freed from the extensions 23 of the face 21 and drops down below its normal position. The link 22 is then passed through the opening in the face 21 back against the lug 25. When the approaching draw-head strikes the face 21 of the open or set draw-head, the upper part, 3, is forced back, the offset 30 strikes the projection 31 and throws the lowered end of the part 4 up in place, and holds it there by passing on top of it, as shown in Fig. 5 of drawing, the extensions 23 pass under the end thereof, and hold it in position. At the same time this is taking place the projection 12 of the lever 10 is freed from the flanges 13 of the lever 14, which lets the coupling-pin 26 drop down in place.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The frame 1 and strap 5, in combination with part 3, having lugs 6 and lever 14, substantially as shown and described.

2. The lever 14, having a flange, 13, in combination with the lever 10, ears 7, and pin-frame 11, substantially as shown and described.

3. The flanged lever 14, in combination with lever 10 and parts 3 and 4 and frame 1, substantially as shown and described.

4. The sliding upper part, 3, having a face, 21, provided with extensions 23, in combination with the pivoted lower part, 4, provided with projections 24 and lug 25, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY H. POTTER.

Witnesses:
H. B. BROWN,
ALBIN M. LONG.