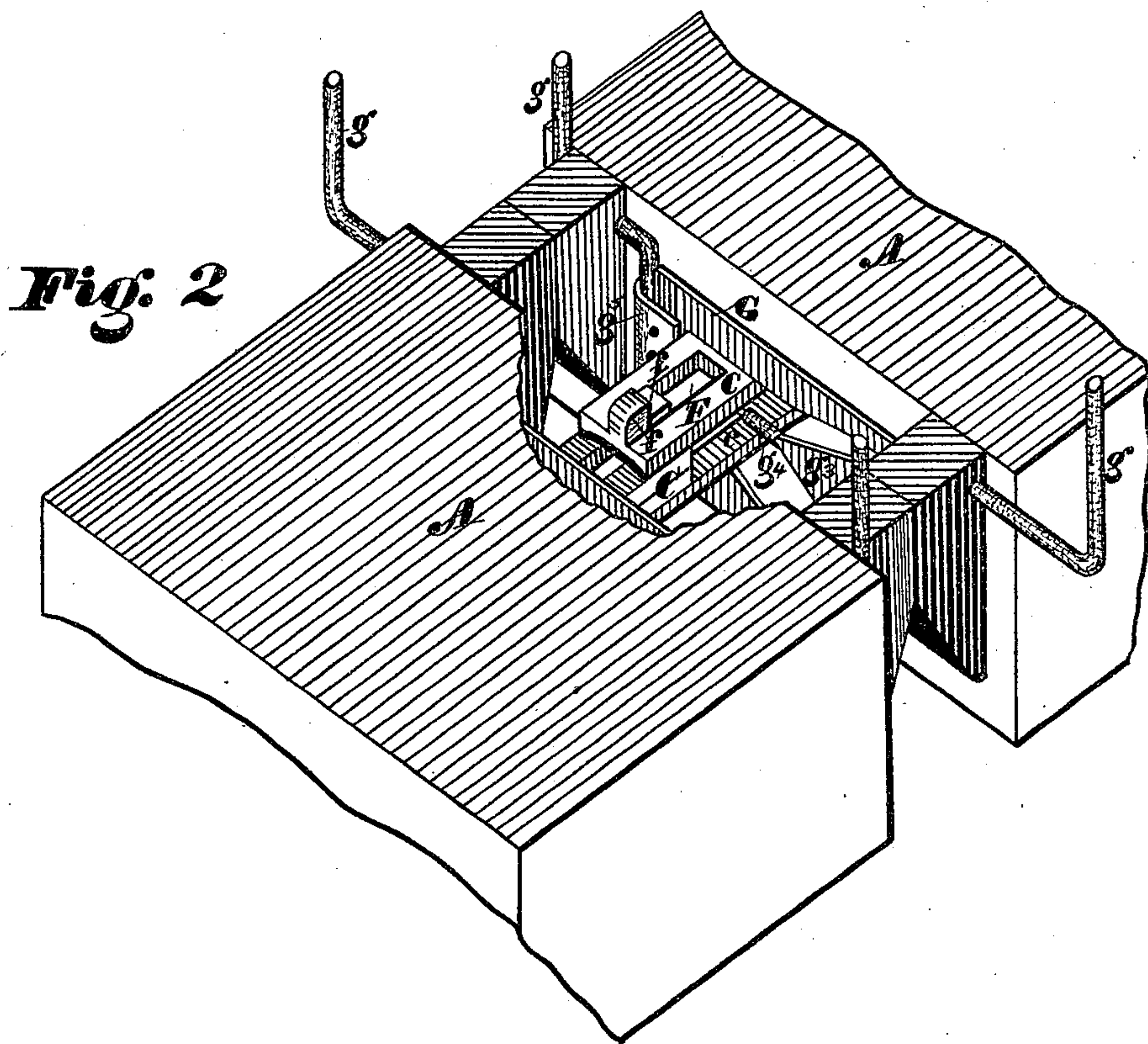
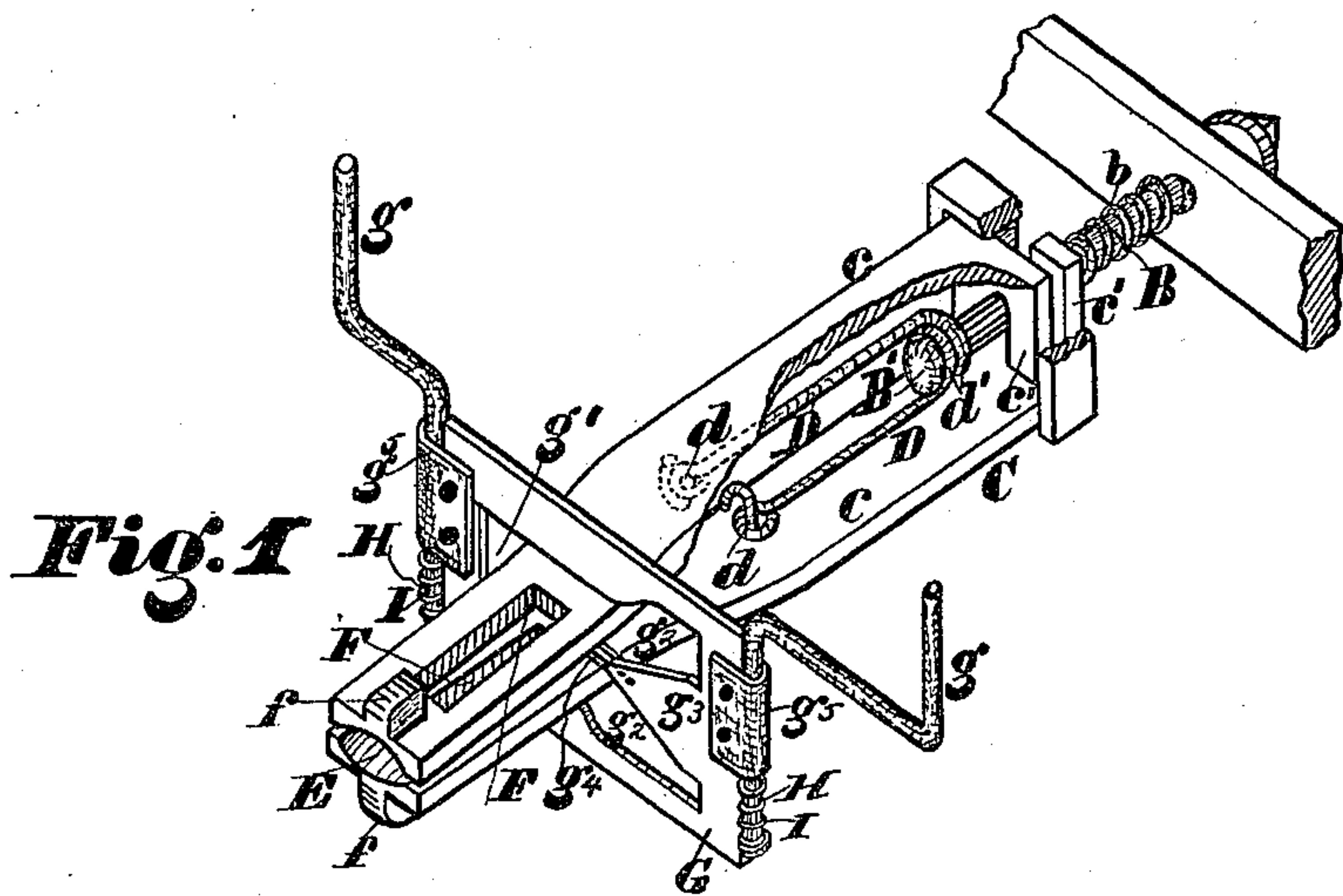


J. B. COREY.
CAR-COUPLING.

No. 174,783.

Patented March 14, 1876.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN B. COREY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **174,783**, dated March 14, 1876; application filed February 9, 1876.

To all whom it may concern:

Be it known that I, JOHN B. COREY, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a broken perspective of my improved car-coupler. Fig. 2 is a perspective, showing the manner of coupling with my improved coupler.

My invention consists in the peculiar construction and combination of parts, as herein-after described, having reference particularly to the following points: first, to the provision of a draw-head formed in two jaws, which will open to receive the nose of another draw-head of similar construction in the act of coupling; second, to forming the draw-heads with longitudinal slots, so as to allow "lost motion" in starting and going around curves; third, to connecting the jaws which form the draw-heads by rods, in such manner that the draft of the train will have a tendency to keep the said jaws closed; fourth, to attaching the draw-heads to the draw-rod in such manner that the draft of the train will fall upon the said rod, while the said heads will be free to move back as buffers against a resisting spring; fifth, to the provision of a lateral slide, whereby the draw-head may be opened and closed, for coupling and uncoupling, said slide being operated directly by hand, or by a lever from the platform, from the top or roof of the car, or from the side, without requiring the brakeman to go between the platforms, or endanger life or limb.

Referring to the accompanying drawing, A represent cars having my improved coupling applied. B B are the draw-rods, provided with spiral springs *b b*. C C are the draw-heads, formed each of two jaws, *c c*, having vertical extensions *c' c'* at their rear ends, said extensions being vertically slotted for the passage of the draw-rods B B. D D are rods, fastened to the jaws *c c* at *d*, terminating at

their other extremities in rings or collars *d'*, which loosely encircle the draw-rods B. When the locomotive is pulling the train the draft falls directly upon the rods B, through the medium of the rods D, which draw on the head B'. When the train is backing, or when a bump occurs between two of the cars, the draw-heads C will be moved back on the rods B against the resisting springs *b b*, the rings *d'* also sliding backwardly on said rods B. The draft of the train, in pulling, falling upon the draw-rods B through the medium of the rods D, the tendency of the latter is to move together or into the same horizontal plane, thus causing the jaws *c c* to keep tightly closed or clamped when the train is in motion. Each of the upper jaws is grooved on its under side, and each of the lower jaws similarly channeled on its upper side, so as to form a chamber or recess, E, between them. F F are slots, extending through both the upper and lower jaws of the draw-heads C, and *f f* are studs on the noses of the latter, which enter the recess E and pass into the slots F F. G G are plates or slides, moving laterally on the front of the platforms, being actuated by handles *g g* from the sides of the car, or from the platform or roof, additional levers (not shown in the drawing) being provided for that purpose, if desired or necessary. The plates G have a Y-shaped slot, *g¹*, in the stem of which the jaws *c c* rest when closed, passing into the branches *g² g²* when opened. The opening of said jaws *c c* is accomplished by moving the slide G so as to cause the beveled part *g³*, which remains between the branch slots *g² g²*, to pass between and distend them. Said beveled part or wedge *g³* is furnished with an elongated point, *g⁴*, which remains between the jaws when closed, so as to insure the steady and certain entrance of said wedge when the plate G is moved laterally in the proper direction. H H are rods depending from the handles *g g*, passing through ears *g⁵* of the plate G, which rests upon spiral springs I, encircling said rod.

The operation is substantially as follows: When it is desired to couple two cars, one of the plates G is moved laterally by means of the handle *g*, or equivalent lever, so as to open one set of jaws, *c c*. When the cars come together one of the draw-heads C, the jaws of

which are not opened, passes into or between the opened jaws of the other. The motion of the slide G is then reversed, permitting the opened jaws *c c* to close down, by the action of the spring *b*, on the inserted draw-head, the studs *f* of which enter the vertical slots F. The cars are now firmly coupled, and cannot be disconnected except by a movement on the part of the brakeman of the lever or handle *g*. The required "lost motion" for starting and turning curves is obtained by means of the slots F.

If desired, a linking pin and loop may be employed to couple any car provided with this coupling with another not so provided, said loop passing between the jaws *c c*, and the pin passing down through the slot F. The springs I permit the plate G and lower jaw *c* to be depressed, when necessary, to a very considerable extent, to permit coupling with a lower car, the jaws of the coupling of which will remain closed, the said lower opened jaw passing beneath the draw-head of said lower car and engaging therewith, as already described.

What I claim as my invention is—

1. The draw-head C, formed of two jaws, *c c*, arranged and constructed substantially as described, to open vertically for the reception of another draw-head, as set forth.

2. The draw-head C, formed of two movable jaws, *c c*, having vertical extensions *c' c'* at their rear ends, slotted vertically for the passage of the draw-rod B, substantially as shown and described.

3. In combination with the draw-rod B, the jaws *c c*, forming the draw-head, and connected to said rod B by the rods D D, substantially as shown and described.

4. In combination with the draw-rod B and opening jaws *c c*, the spring *b*, operating, as described, as a buffer-spring, and also to close said jaws, as set forth.

5. The jaws *c c*, forming the draw-head, having elongated vertical slots F and studs *f f*, substantially as shown and described.

6. The plate G, hung upon rods H H, and sustained by springs I, so as to permit the depression of said plate for the purpose of coupling together a high and low car, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of February, 1876.

JOHN B. COREY.

Witnesses:

M. DANL. CONNOLLY,
CHAS. F. VAN HORN.