

OSMAN & POTTER.

Car Coupling.

No. 84,066.

Patented Nov. 17, 1868.

Fig. 1.

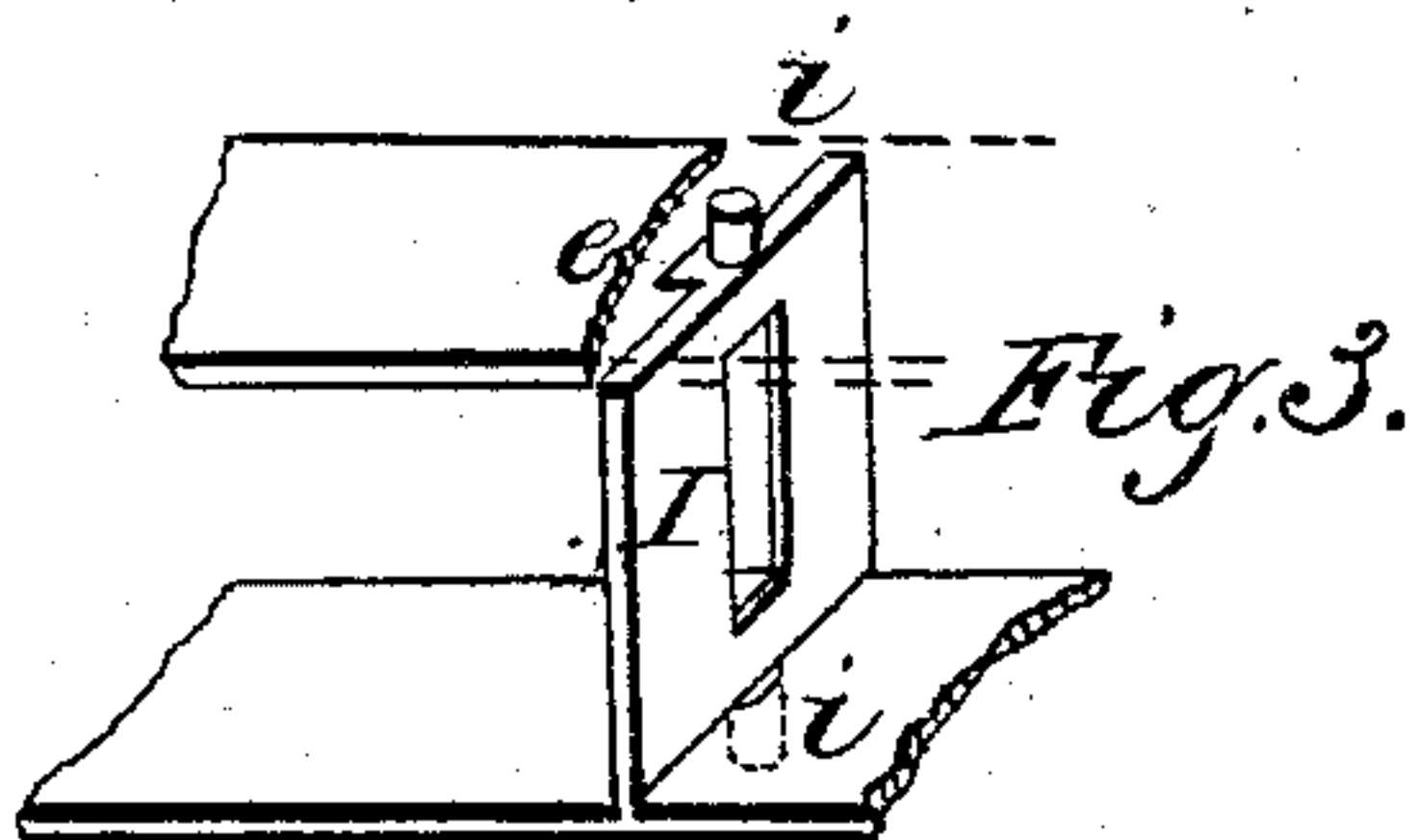
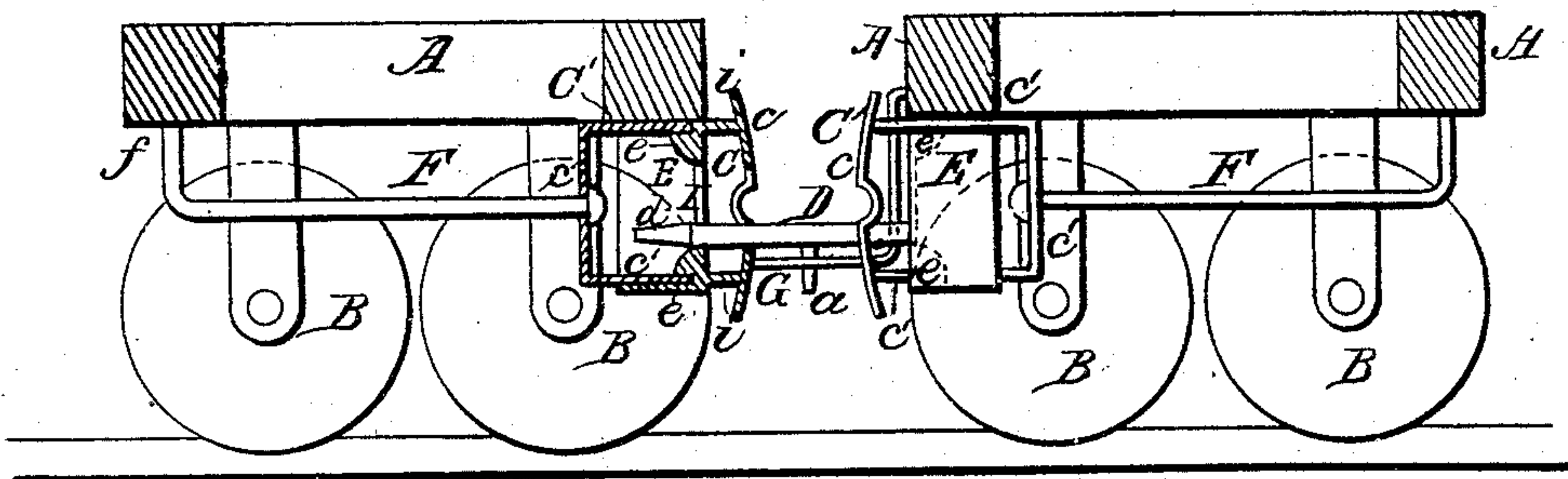
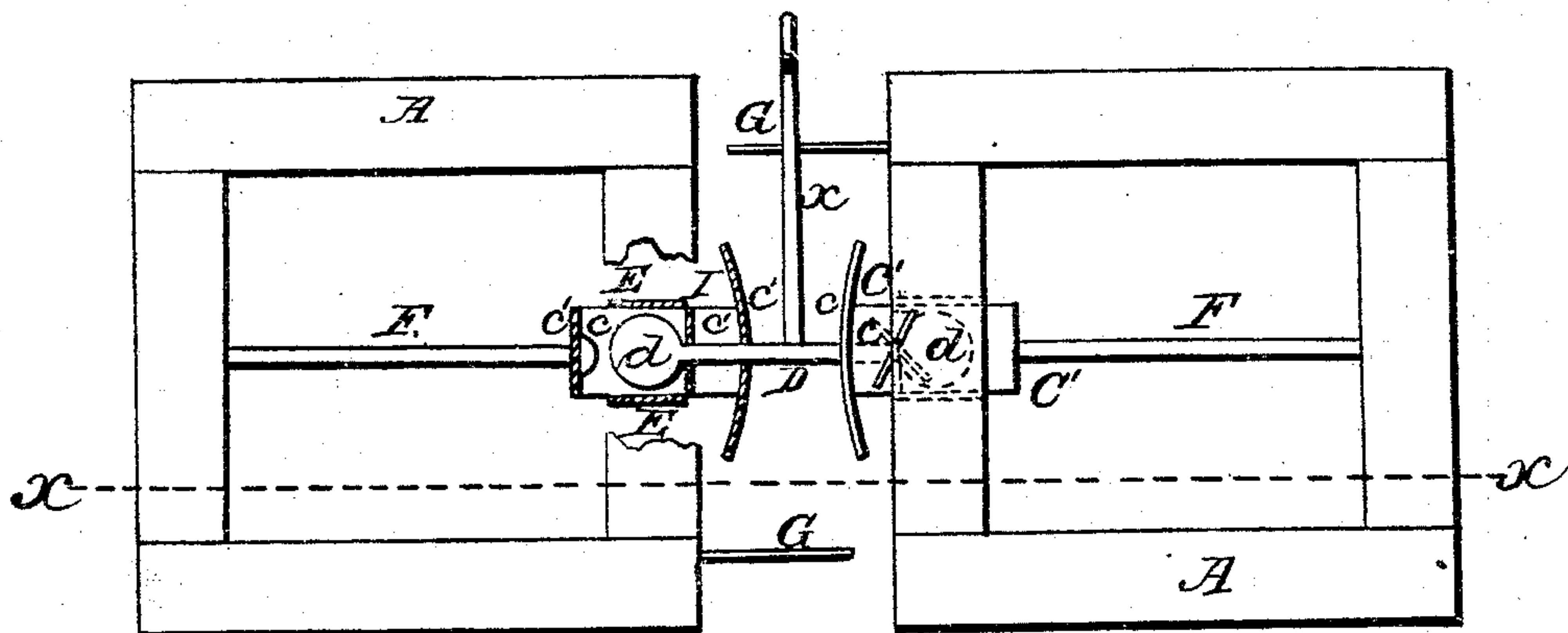


Fig. 2.



Witnesses  
 J. A. Pettie  
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Inventor:  
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 By *[Signature]* Attorneys.



# United States Patent Office.

JAMES OSMAN AND JOHN F. POTTER, OF LINDEN HALL, PENNSYLVANIA.

Letters Patent No. 84,066, dated November 17, 1868.

## IMPROVED CAR-COUPLING.

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

### To all whom it may concern:

Be it known that we, JAMES OSMAN and JOHN F. POTTER, of Linden Hall, in the county of Centre, and State of Pennsylvania, have invented a new and improved Car-Coupling; and we 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 accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section through line *xx* of fig. 2, the near wall of one of the draw-heads being broken away to enable the interior to be seen.

Figure 2 is a top view, a portion of the car and the top plate of one draw-head being removed.

Figure 3 is a detached view of a draw-head, a portion being broken away in order to show the construction and operation of the plate I.

The object of this invention is to accomplish the coupling and uncoupling of cars in a safe and ready manner.

In the drawings, A represents the body of the car; B B, the wheels; C C', the draw-heads; and D, the coupling-bolt. The coupling is encompassed and supported by a U-shaped strap or casting, E, bolted through flanges to the under side of the bed-frame of the car. The coupling slides into the casting, and is held there by a bolt or rod, F, the inner end of which is attached to the car at *f*, by any suitable means.

The draw-head is formed by casting or bolting a face-plate, *c*, to a bent plate, *c'*, within which is supported a vertical plate, I, pivoted at *i*, and provided with guide-lugs, *e e*. Both the face-plate *c* and the pivoted interior plate I, are provided with a narrow vertical slot at their centre, through which the coupling-bolt extends when the cars are coupled together.

The coupling-bolt is a straight, cylindrical bolt, having on each end a flat, circular disk or head, *d*, which, when in a vertical position, passes easily through the slots in plates *c* and I; but once through, and turned down to a horizontal position, cannot escape. An arm, *a*, is fixed to the bolt, by which the workmen can turn the latter to a suitable position for coupling, uncoupling, or holding the cars. The arm extends in the same plane with the flat heads *d d*, so that its position always indicates theirs. When the cars are coupled, it lies upon a rest, G, extending from the frame of the car.

We are aware that "arrow-head" coupling-bolts, having barbed or square shoulders, upon which the

draught comes, have been employed heretofore in connection with a rigidly unyielding draw-head. We lay no claim to such, as our invention, inasmuch as they are defective, and impracticable in operation. In the first place, when the car swings or turns slightly, the whole draught is thrown upon one point or corner of the barb in such a manner that the breaking of the bolt is almost inevitable. The sharp corners also prevent the ready escape of the bolt from the draw-head when in the proper position to escape. Besides these defects, the sharp angle made where the head *d* unites with the body of the bolt decidedly weakens the whole instrument, rendering fracture at that point much more probable. We obviate all these imperfections by making the head *d* in a circular or nearly circular form, dispensing entirely with the sharp outer corners and the acute inner angle of the old devices; and in connection with this, by making the plate I, on which the draught comes, capable of turning on its pivot, so as to keep itself always in a position perpendicular to the axis of the bolt. In this way, the bolt is saved from the great torsion and leverage to which it is otherwise often subjected, while the circular heads, acting against the inclined guides *e e*, above and below the slots, are automatically directed out of the draw-head when turned up to the proper position.

By doing away with the sharp shoulders, which were always liable to catch in something, and do some damage or other, breaking the draw-head, refusing to escape therefrom, &c., we obtain an apparatus that cannot be uncoupled so long as the heads lie horizontally, but which will uncouple, when raised to a vertical position, so easily that the overturning of a car, the running off of the track, &c., will in four cases out of five be sufficient to separate the cars, and save some of them from destruction.

Having thus described our invention,

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

The pivoted plate I, having the guides *e e*, or their equivalent, when employed in connection with a draw-head, substantially in the manner and for the purposes described.

To the above specification of our improvement, we have signed our hands, this 18th day of August, 1868.

JAMES OSMAN.

JOHN F. POTTER.

Witnesses:

ADAM STOVER,  
J. C. SELLERS,