

J. FORMAN.
Car-Coupling.

No. 208,081.

Patented Sept. 17, 1878.

Fig: 1.

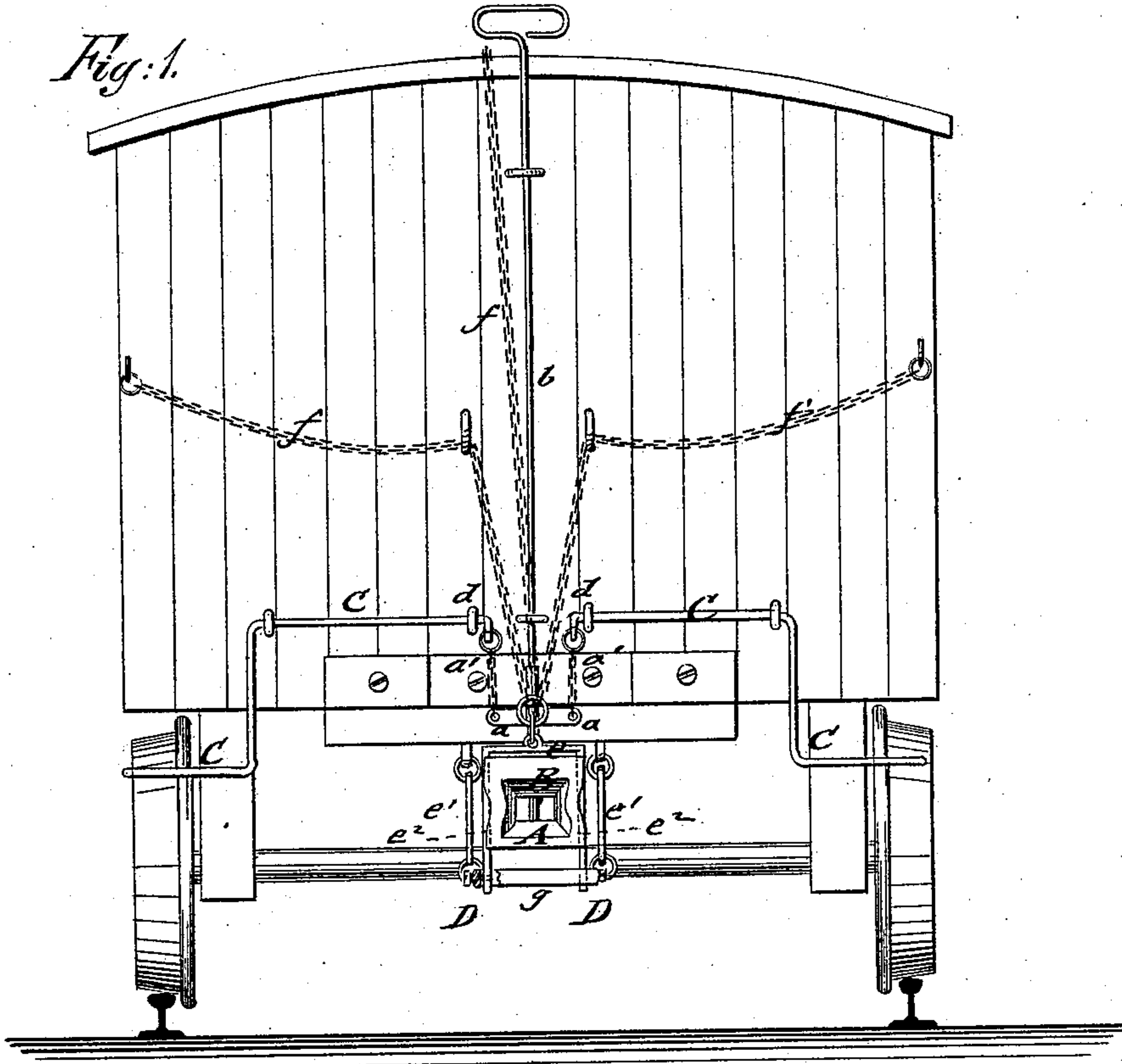


Fig: 2.

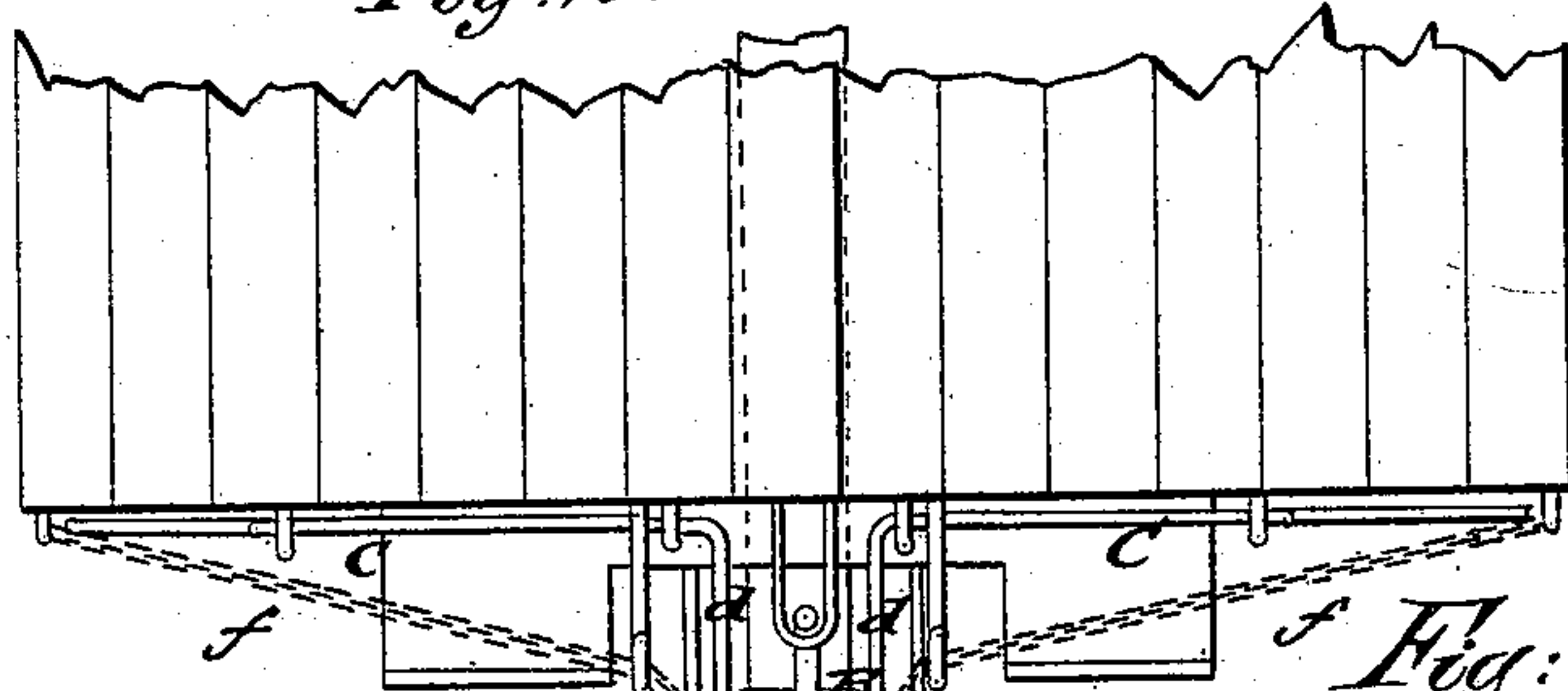
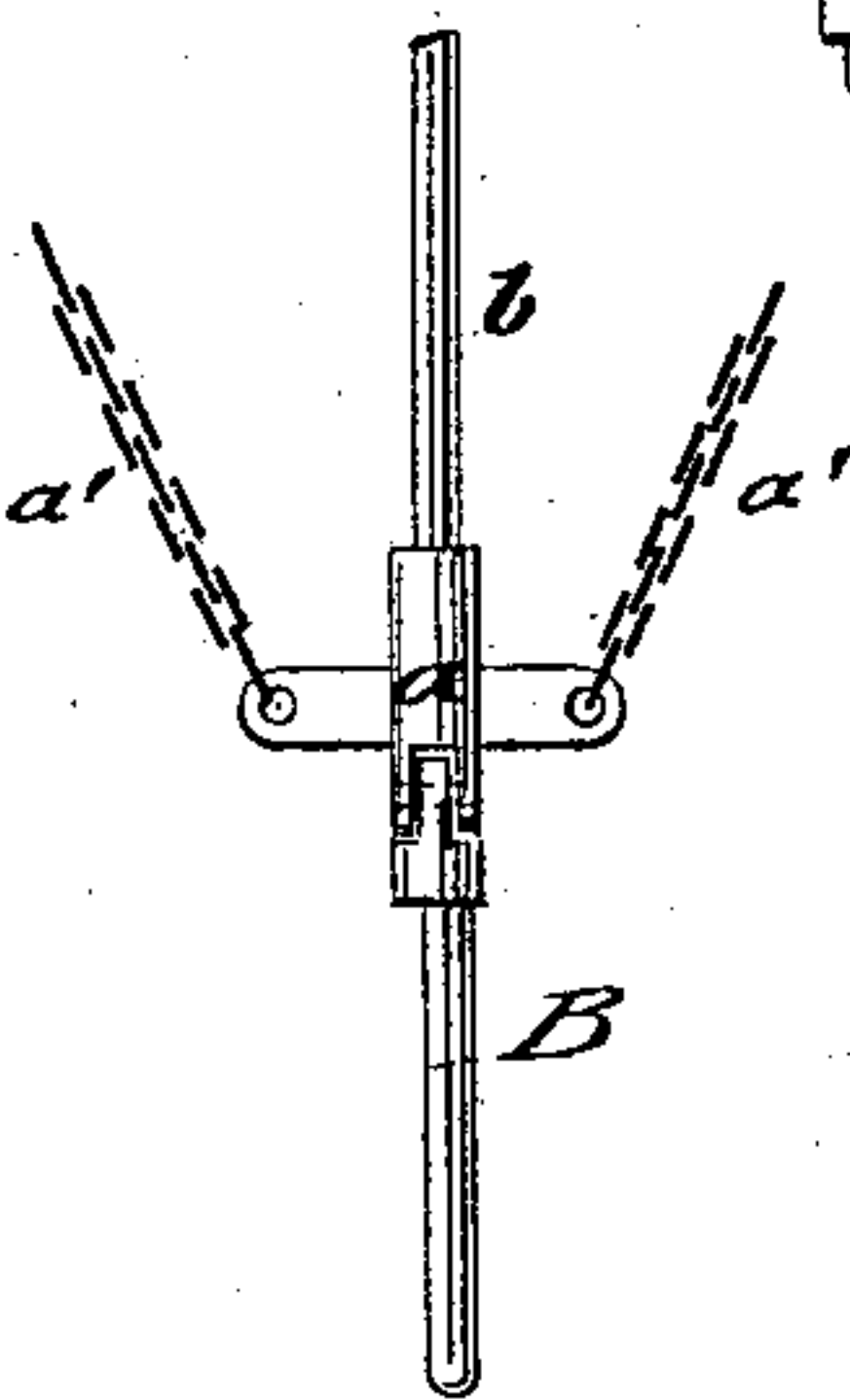


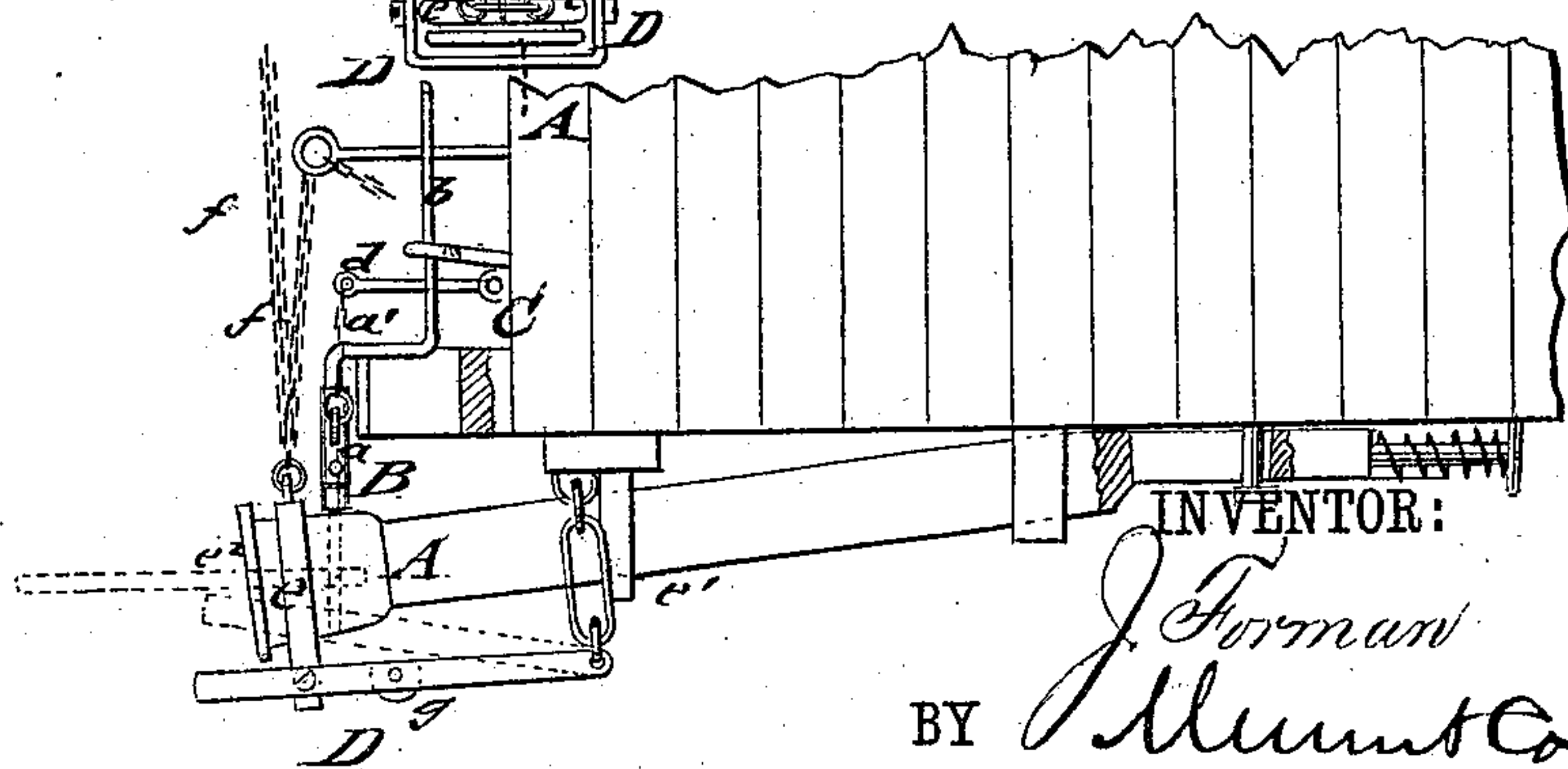
Fig: 4.



WITNESSES:

Chas. Nida
G. Sedgwick

Fig: 3.



INVENTOR:

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UNITED STATES PATENT OFFICE.

JOSEPH FORMAN, OF HELENA, KENTUCKY, ASSIGNOR TO HIMSELF AND
JOHN H. WOOD, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **208,081**, dated September 17, 1878; application filed
July 23, 1878.

To all whom it may concern:

Be it known that I, JOSEPH FORMAN, of Helena, in the county of Mason and State of Kentucky, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawings, Figure 1 represents an end elevation of a car with my improved car-coupling. Fig. 2 is a top view; Fig. 3, a sectional side view of the same, and Fig. 4, a detail view of the joint of the coupling-pin with lifting-rod and chains.

Similar letters of reference indicate corresponding parts.

This invention relates to improvements in that class of car-couplings in which the pin may be dropped and the link guided into the connecting draw-head without the necessity of going in between the cars; and the invention consists of a lever arrangement for raising and dropping the coupling-pin from the side or top of the car; and, secondly, of a swinging and guided frame for lifting the coupling-link from the top or side of the car, so that it properly enters the mouth of the connecting draw-head.

Referring to the drawings, A represents a draw-head, of the usual construction, that is hung to the bottom of the car and cushioned in the customary manner.

The upper end of the coupling-pin B is pivoted to a cross-head, *a*, that is attached to a vertical center-rod, *b*, which is guided in staples of the car extended to the top of the same, and provided with a handle at the upper end. The cross-head *a* is also attached by short chains *a'* to the forward-extending crank-arms, *d*, of two levers, C, that swing in bearings of the car and are extended to both sides of the car, and are operated by handles at the ends of the same.

The pulling up or lowering of the center-rod *b*, or the swinging up or down of either of the side levers, raises or drops the coupling-pin, so as to uncouple or couple the link.

The link-lifting device D is hung to a bail, *e*, that extends over the top of the draw-head, back of the mouth, and suspended by rear

chains *e'* from the bottom frame of the car. The transverse front piece of the lifter D bears on the under side of the coupling-link and raises the link to the proper height to enter the connecting draw-head.

The front bail, *e*, is pivoted to the lifting-frame D, guided along side flanges *e''* of the draw-head, and connected by center and side chains *f*, attached to a top ring of the bail, with the top and sides of the car, so that the link-lifting frame D may be raised or lowered either from the top or sides, as desired.

A weighted cross-piece, *g*, is pivoted to the link-lifter D, back of the bail, and flattened at the top, so as to bear on the bottom of the draw-head and lift the same, in connection with the link, when the link has to couple with draw-heads of cars of different height. The weighted cross-piece also serves to return the lifting-frame into lowermost position when not required for use.

The lifting-frame D swings, by means of its bail and suspension-chains, readily out of the way when the draw-heads are thrown into contact with each other, while it is thrown into use with great facility whenever required.

The going in between the cars by the brakeman for the purpose of holding the link is done away with by the link-lifting device, while the dropping of the pin or raising it may be accomplished at the same time from the same point from which the link is governed by the pin-lifting levers or rod.

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

1. The combination, with the pivoted pin B, of the cross-head *a*, central rod *b*, chains *a'*, and levers C, having crank-arms, as and for the purpose described.

2. The combination of the lifter D, pivoted bail *e*, chains *e'* *f*, and weighted cross-piece *g*, as and for the purpose specified.

JOSEPH FORMAN.

Witnesses:

JOSEPH W. HOWE,
WILLIAM H. ROBB.