J. S. McMURRAY.

Car Coupling.

No. 75,178. Patented March 3, 1868.

Fig: 1.

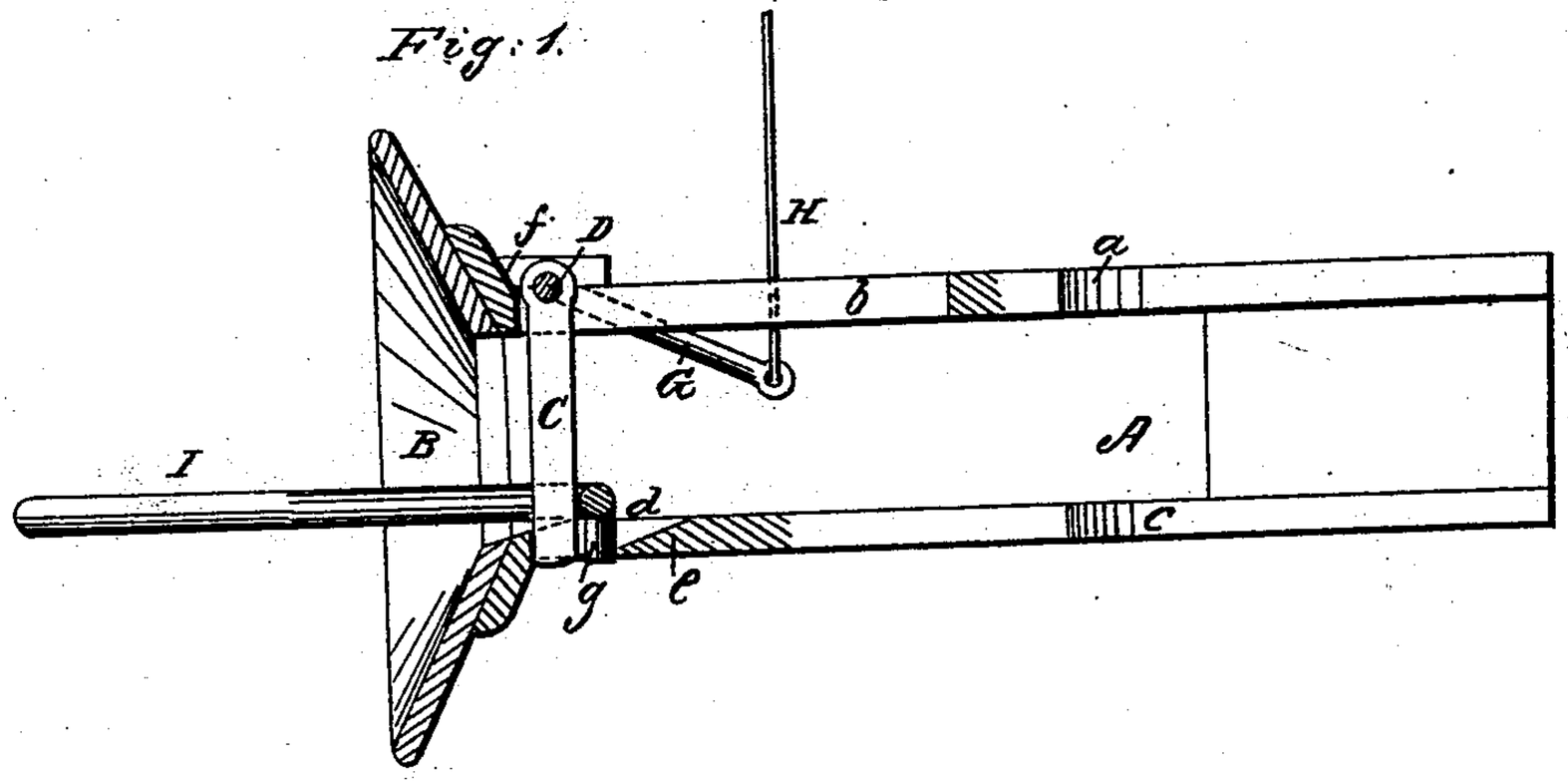
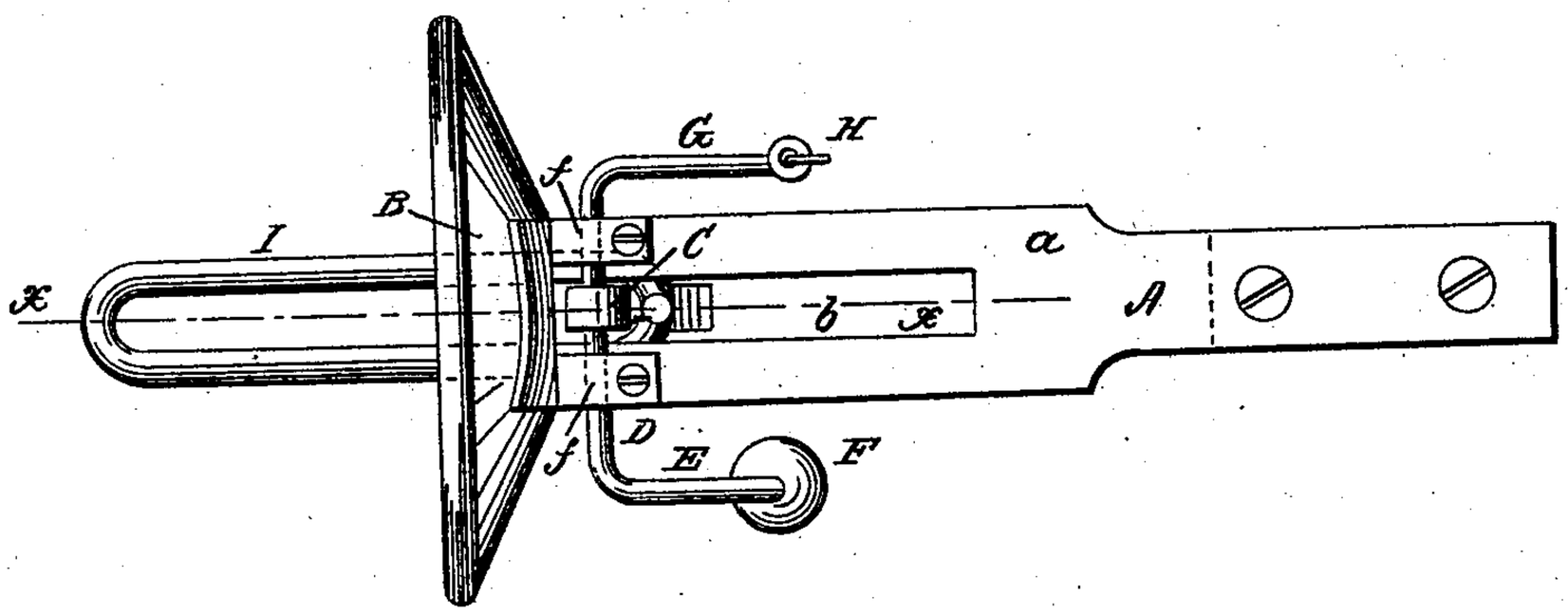


Fig: 2.



Witnesses:

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JAMES S. McMURRAY, OF TORONTO, CANADA, ASSIGNOR TO HIMSELF, THOMAS RICHARD FULLER, AND SAMUEL STREET FULLER, OF STRATFORD, CANADA WEST.

Letters Patent No. 75,178, *dated March* 3, 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 I, JAMES S. McMURRAY, of Toronto, in the county of York, and Province of Ontario, Canada, have invented a new and improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved car-coupling of that class which is commonly termed self-acting or self-coupling, and it consists in a peculiar construction of the same, and in the application of certain parts, hereinafter fully shown and described, whereby the device is not only rendered self-coupling, but also is rendered capable of being uncoupled or disconnected by a person without the necessity of passing between the cars, which is attended with considerable danger. In the accompanying sheet of drawings—

Figure 1 is a vertical longitudinal section of my invention, taken in the line *x x*, fig. 2.

Figure 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

A represents a draw-head, which has a flaring head or mouth-piece, B, and may be attached to the car in the usual or in any proper manner. The top plate, *a*, of the draw-head has an oblong slot, *b*, made longitudinally in it, and the bottom plate, *c*, has a slot, *d*, made in it, the rear end of which is bevelled as shown at *e*, (see fig. 1.) C represents the coupling-pin, the upper end of which is fitted on a shaft, D, the latter being placed in suitable bearings, *f f*, on the top plate *a* of the draw-head. One end of the shaft D is bent to form a crank, E, or has a crank made separately from and attached to it, a weight, F, being attached to the lower end of the crank, and the opposite end of the shaft has a similar crank, G, attached, to the outer end of which a rod or chain, H, is connected. The two cranks E G are in the same plane, and the coupling-pin C is in line with and works through the slots *b d* in the top and bottom plates *a c* of the draw-head, the lower end of the pin, when the latter is in a vertical position, bearing against the front end of the slot *d*, in the bottom plate *c*, as shown clearly in fig. 1. I represents the link or shackle, which may be of the usual form, and has a pendent pin, *g*, at one end of it, to fit into the slot *d* of the bottom plate *c* of the draw-heads behind the pin C.

From the above description it will be seen that the link I, when fitted in the draw-head, will be retained in a horizontal position, in consequence of the pin *g* fitting in the slot *d*, and when the link I enters the empty draw-head of an adjoining car, the coupling-pin C of said draw-head will be shoved backward and upward out of the slot *d* until the end of the link passes the lower end of the coupling-pin, when the latter will drop through the link by virtue of its own gravity, the weight F on crank E, and also the crank G, and the coupling of the two draw-heads will be effected.

In order to uncouple the cars, the coupling-pin C is raised by pulling the rod H connected to the crank G, and the pin C moves backward and releases the link. The rod H extends up to the platform of passenger-cars, and up to the roof of baggage and freight-cars, so that the uncoupling may be effected without the necessity of a person passing between the cars, and when it is not designed to effect a coupling between the cars, the rod H may be fastened or secured in a raised position by any suitable fastening, to retain the pin in an elevated position, and prevent it from dropping through the link I, should it enter the draw-head containing the elevated pin. The same means can be applied in order to uncouple, by carrying the rod or chain to the outside of the car.

I do not claim broadly or separately a drop-coupling pin, C, arranged as shown, for they have been previously used in the draw-heads of railroad-cars; but

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

The pin *g*, upon the coupling-link I, in combination with the inner bevelled end of the slot *e*, the pivoted pin C, crank G, and weighted crank E, as herein described, for the purpose specified.

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Witnesses:

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