R. M. Hughes,

Car Coupling,

No. 31.603.

Patented Mar. 5. 1861.

Fig 1

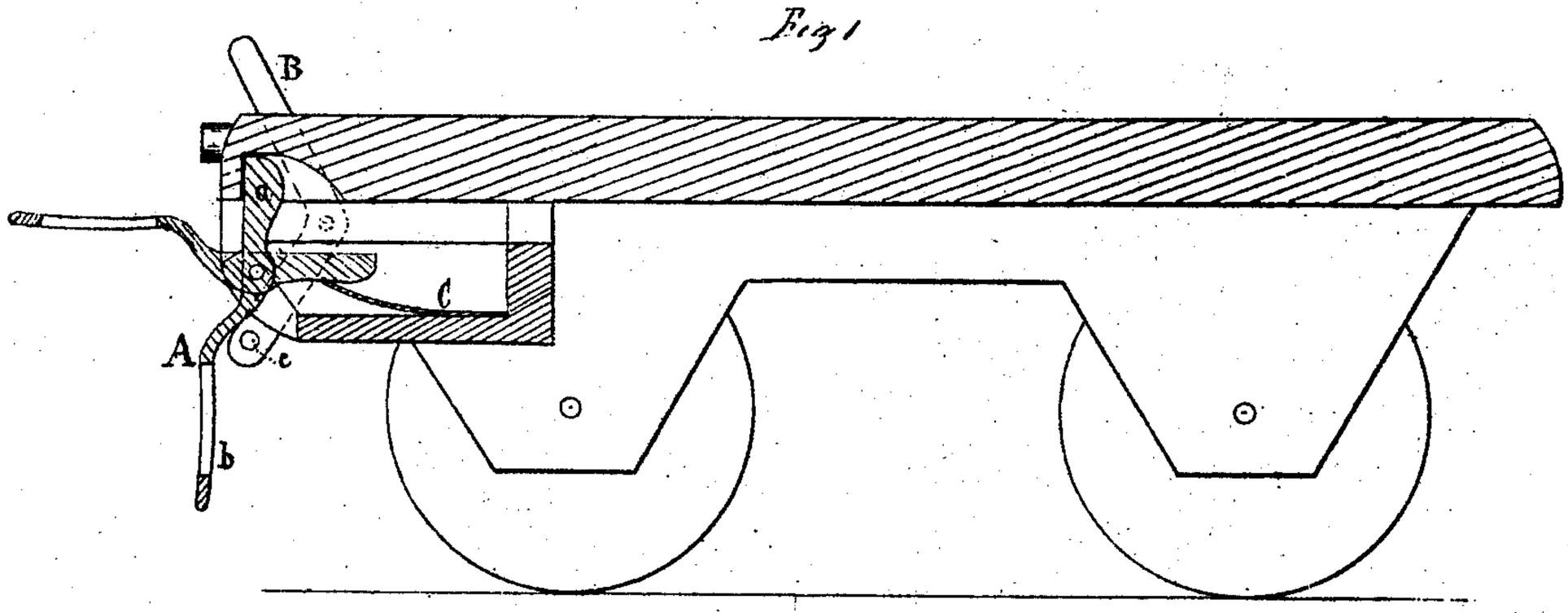
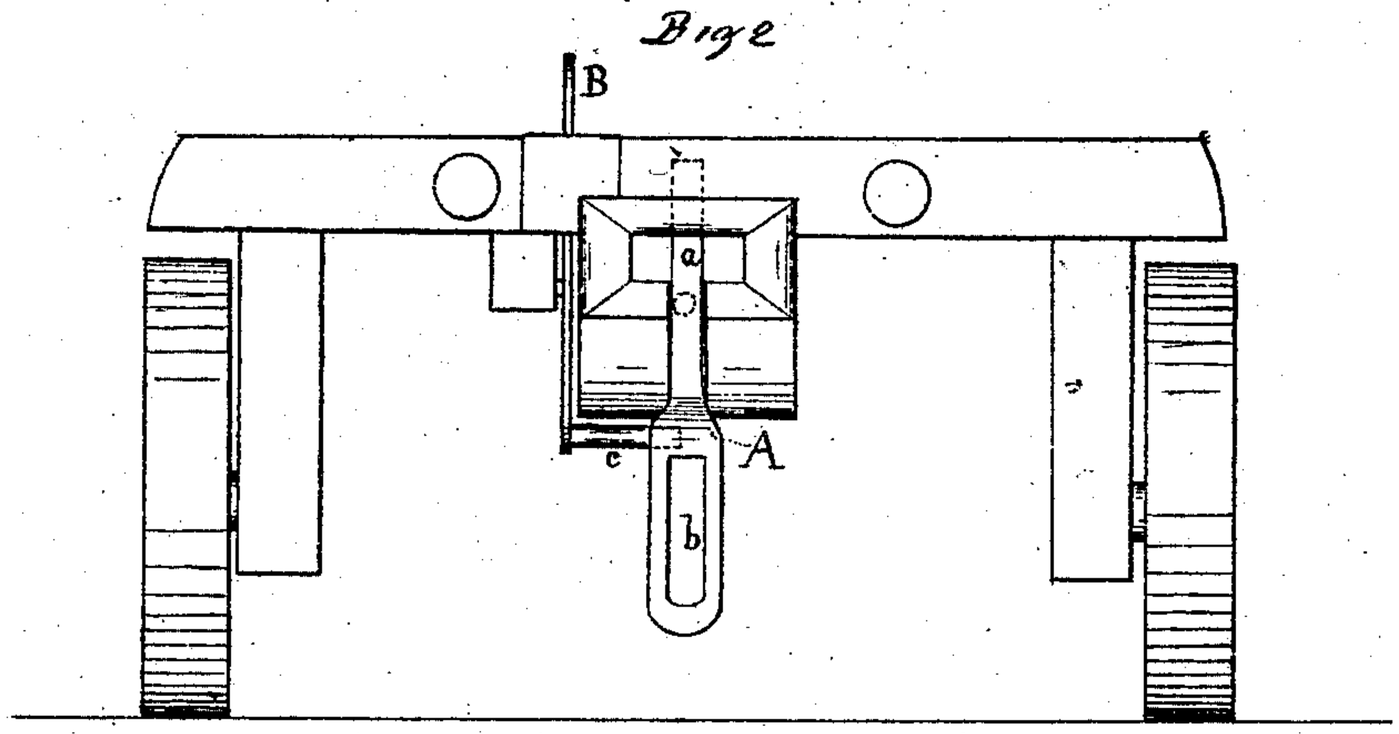


Fig 2



UNITED STATES PATENT OFFICE.

ROBERT M. HUGHES, OF PLEASANT GROVE, PENNSYLVANIA.

RAILROAD-CAR COUPLING.

Specification of Letters Patent No. 31,603, dated March 5, 1861.

To all whom it may concern:

Be it known that I, ROBERT M. HUGHES, of Pleasant Grove, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Railroad-Car Coupling, the construction and operation of which I have described in the following specification and illustrated in the accompanying drawings with sufficient clearness to enable competent and skilful workmen in the art to which it pertains or is most nearly allied to make and use my invention.

The nature of my invention consists in constructing a car coupling of a link and a pin combined in one piece and swung on a pivot near the middle, one end of said piece serving as a link and the other as a pin, the arrangement being such that it will be self-coupling and detachable by a lever or other suitable device at the pleasure of the engineer or brakeman.

Of the accompanying drawings, Figure 1 is a longitudinal vertical section through a car or truck with my improvement attached. Fig. 2 is an end elevation of the same.

In their general construction the cars to which my coupling is applied may be the same as those in ordinary use, and therefore no description of them is needed.

In the accompanying drawings, A is the coupling piece or combined link and pin, one end (*a*) of it serving as a pin or catch, and the other end (*b*) as a link. This piece swings freely upon a pin or pivot near its middle as indicated in the drawings. In both figures the link end is represented in black as hanging down out of use, while the pin end is in the position it occupies preparatory to coupling with a link upon another car, or after such coupling has been effected. The red lines in Fig. 1 show the coupling piece in the position which it occupies when the link end is turned up so that it will couple with a pin upon another car, the pin end being turned back into a horizontal position out of use for the time being.

B is a lever for throwing the pin end of the coupling piece into the position for uncoupling, or for raising and holding the link end up in the position for coupling with a pin upon another car. The construction of this lever is best shown in Fig. 2. Its upper end plays through a slot in the platform a little to one side of the center of the car, there being a horizontal arm (*c*) upon its lower end which catches against and operates the coupling piece. There is a notch in the slot in the platform in which the upper arm of the lever catches when it is drawn back, so that the lever may be fixed and thus hold the coupling piece in position for uncoupling, or the link end in a position for coupling.

C is a spring which presses up against, and aids the action of gravitation in throwing the pin end of the coupling piece from the uncoupled into the coupling position when it has been released from the former by detaching the lever from its catch. The rear side of the pin or that toward the car to which the coupling is attached may be of an oval or cam shape, as shown, which will facilitate the operation of uncoupling.

The operation of my improved coupling will be sufficiently obvious from the foregoing description.

In addition to other advantages, it may be mentioned that this coupling can always be put into a self-acting position, no matter which ends of the cars to which it is attached may be presented toward each other. With this arrangement a person upon the platform of either of two cars to be coupled, can, by operating the lever put the coupling piece on that car into a position to connect with that on the other car, whether the link or the pin end on the latter happens to be presented in the coupling position. When this coupling is attached to the locomotive or its tender, the engineer can always have it in his power by operating the lever so to adjust the coupling that it will be in a proper position for hitching on to a car to which the locomotive may be backing up no matter in which position the coupling piece on that car may be.

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

A car coupling consisting of a link and pin combined in one piece and pivoted or swung near the middle, one end serving as a link and the other as a catch, so constructed and arranged as to be self coupling and detachable by means of a lever or other equivalent device substantially as herein described.

ROBERT M. HUGHES.

Witnesses:

SAMUEL WICKS,

J. A. BLAKE.