(No Model.)

G. MARSELLIS.

CAR COUPLING.

No. 267,008. Patented Nov. 7, 1882.

Fig. 1.

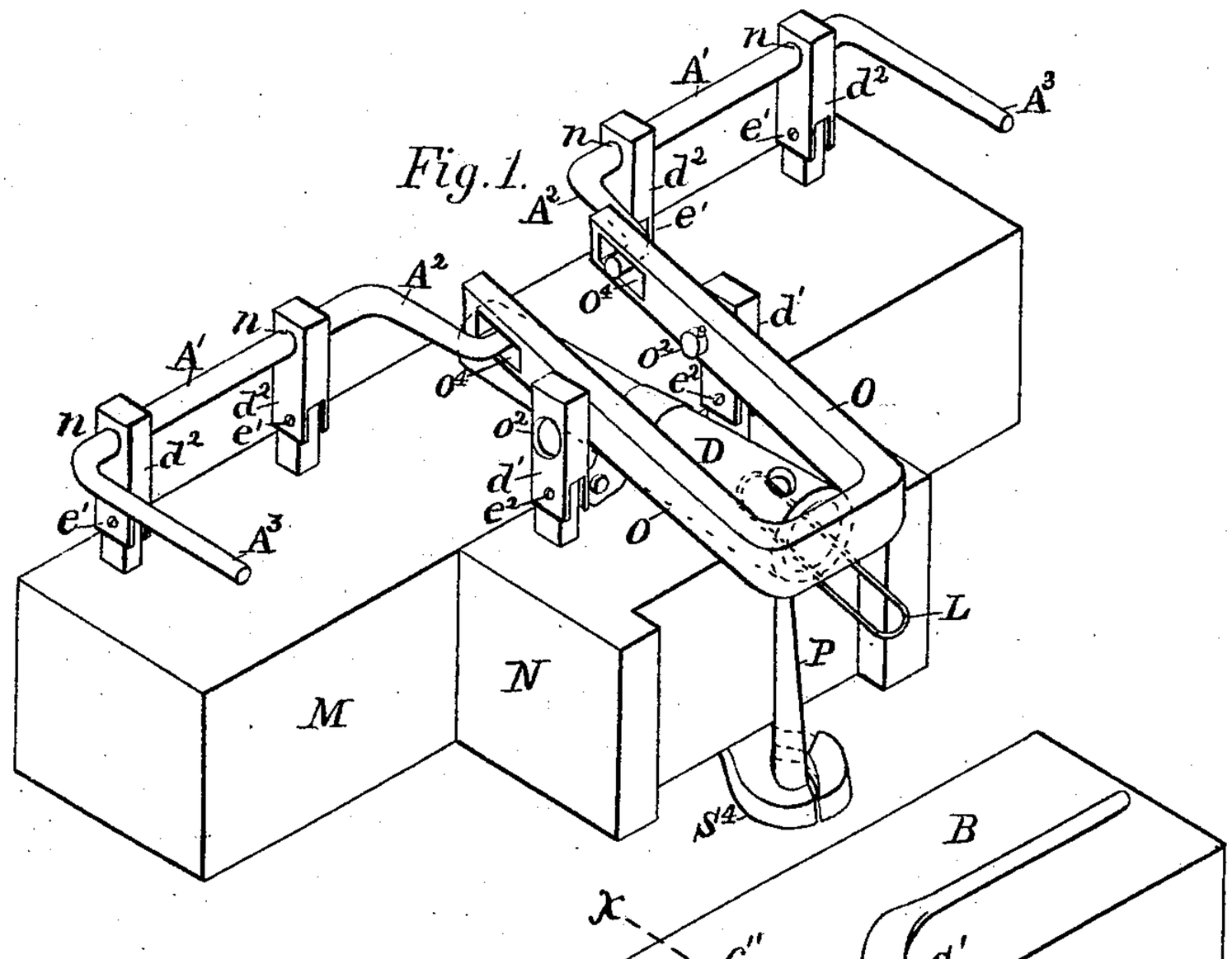

Fig. 3.

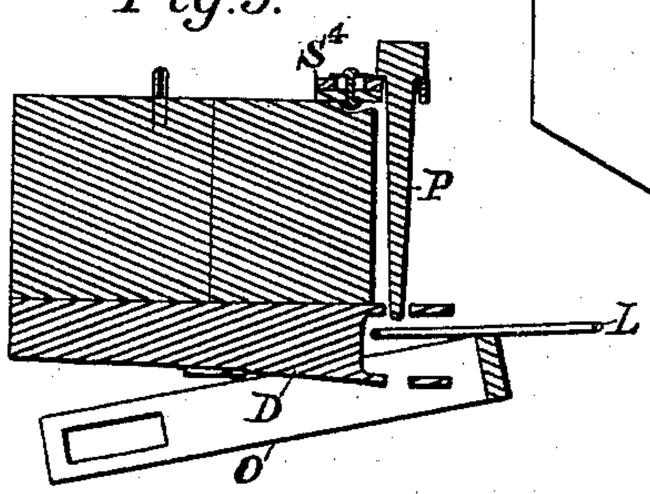

Fig. 2.

Witnesses:
Charles S. Brintnall
Horace L. Hicks

Inventor:
George Marsellis
by W. E. Hagan his
atty

UNITED STATES PATENT OFFICE.

GEORGE MARSELLIS, OF MECHANICSVILLE, NEW YORK, ASSIGNOR OF ONE-FOURTH TO JOHN CALEB GREEN, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 267,008, dated November 7, 1882.

Application filed April 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MARSELLIS, of the village of Mechanicsville, county of Saratoga and State of New York, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to apparatus designed to operate the usual link and pin by which cars are coupled, the object of my improvement being to produce a means by which the link may be guided to enter the draw-head and the pin inserted to hold the link there by the brakeman without his being compelled to pass between the cars.

My invention consists, as will hereinafter be more fully described, in the manner of constructing and arranging a pair of shear-arms having a tongs-clutch, with each of the arms pivoted to the car-floor, and also pivoted to each other by means of a slotted connection and shear-joint, so as to hold by and drop from the tongs-clutch the pin, together with a pivoted lever arranged beneath the car-floor at its end, which lever is operated by a crank-handle to guide the link so as to enter the draw-head.

In the accompanying drawings, forming a part of this specification, there are three figures illustrating my invention, in all of which the same designation of parts by letter-reference is used.

Figure 1 shows in perspective a view of the under side of the apparatus with the latter turned over and its under side uppermost. Fig. 2 shows a view in perspective of the upper side of the apparatus. Fig. 3 shows a longitudinal vertical section of the apparatus, taken on the line *x x* of Fig. 2.

The several parts of the mechanism constituting my invention and the parts of a car-coupling with which it connects are indicated by letter-reference as follows:

The letters S′ S′ designate the shear-arms, which are pivoted to the car-floor or platform B at S^2 S^2, and also pivoted to each other by a slotted shear-connection at S^3, so as to produce with their end jaws the tongs-clutch S^4.

The letter C designates a U-form spring which is secured to the car-floor or platform at C^2, and the purpose of which is to keep the shear-arms spread apart, and thus keep the tongs-clutch jaws closed around the coupling-pin until it is desired to drop the latter into the draw-head D through the entering link L. This latter result is produced by pulling on either of the shear-arms S′ S′, which opens the tongs jaws and clutch and allows the pin to descend.

The letter O indicates a U-form lever which, at its side arms, a little back of their center, is pivoted to the studs or standards *d′ d′* at O^2.

The letters A′ A′ designate two shafts which journal into the studs or standards d^2 at *n*, and these shafts have the cranks A^2 on their inner ends, which cranks connect with and work in the slots O^4, formed in each side of the separated arms of the pivoted lever O. The cranks produced on each of the outer ends of these shafts A^3 A^3 may be either of them used to operate the closed end of the lever O to elevate or depress it.

Each end of the car being provided with the mechanism above described, it is operated as follows: By means of either of the cranks designated at A^3 (there being one at each side of the car) and the shaft which connects them with the lever O, the outward end of the latter may be operated to rise up from beneath the coupling-link of the approaching car, so as to guide it horizontally to enter the draw-head of the car to be connected. When this is done the brakeman, by pulling upon either of the shear-arms S′ S′, can release the pin, which will fall into the draw-head with its point downward, pass through the entered link, and thus complete the coupling connection.

The standards or studs *d′* are pivoted at e^2, and the other standards or studs designated at d^2 are likewise pivoted or jointed at *e′*, so that should the end of the lever O be caught between the draw-heads of the two cars and forced back by the momentum of the backing train the connected parts will all swing back with the lever and return with it to position when the train moves forward.

One great advantage is attained by the use of my invention is the fact that it furnishes a safe method of operating a well-known means—

the ordinary draw-head, link, and pin—and enables the brakeman to operate the latter without his being compelled to pass between the cars.

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

1. In a car-coupling device, the combination of the shear-arms S′ S′, pivoted to the car platform or floor separately, and also pivoted to each other by means of a slotted shear-joint provided with jaws to produce the tongs-clutch S^4, and the spring C, arranged between the shear-arms, the whole constructed and arranged to hold and release the coupling-pin in the manner herein described and set forth.

2. In a car-coupling device, the combination of a U-form lever having its side arms each journaled to a jointed standard or banger, and slotted at each of its ends to receive motion from a crank-shaft journal working in said slots at each side, a crank-shaft upon each side of said lever, having bearings in jointed standards or hangers, and a crank upon the inner end of each shaft, which journals into the adjoining slot in said lever to actuate the latter, and motor-cranks upon the outer end of each crank-shaft, arranged to operate as and for the purposes set forth.

3. A car-coupling device consisting, in combination, of a tongs-clutch actuated by shear-arms that are pivoted to the car platform or floor and by a slotted shear-connection with each other, the spring C, arranged between the shear-arms, the U-form lever O, the crank-shafts A′ A′, having journals in jointed studs or hangers, the inner cranks, A^2 A^2, and the outer cranks, A^3 A^3, constructed to operate as and for the purposes herein set forth.

Signed at Troy, N. Y., this 14th day of April, 1882.

GEORGE MARSELLIS.

Witnesses:
HORACE L. HICKS,
CHARLES S. BRINTNALL.