

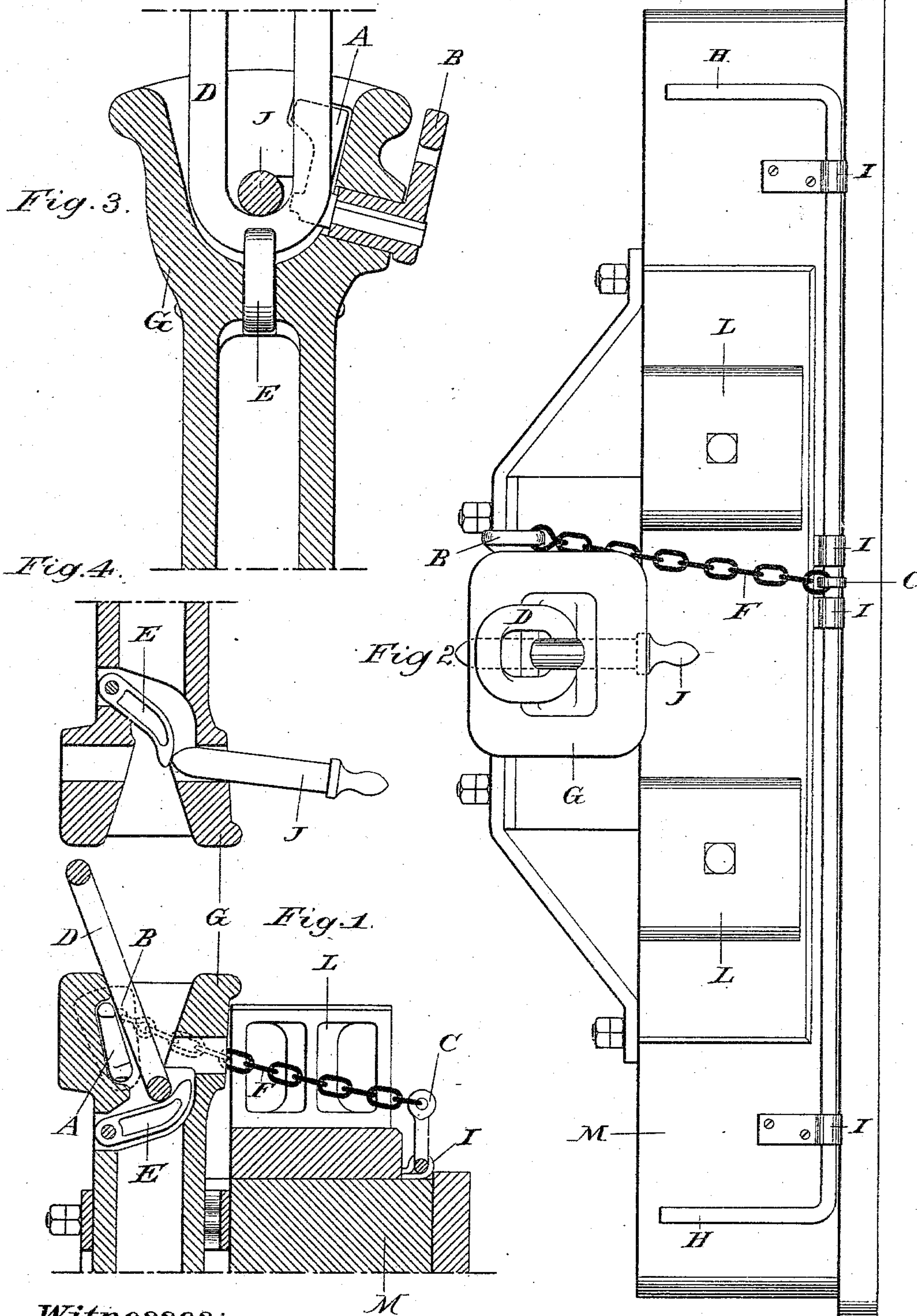
(No Model.)

A. K. MANSFIELD.

COUPLING FOR RAILWAY CARS.

No. 295,186.

Patented Mar. 18, 1884.



Witnesses:

G. L. Mansfield.

S. E. Finkham.

Inventor:

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UNITED STATES PATENT OFFICE.

ALBERT K. MANSFIELD, OF BOSTON, MASSACHUSETTS.

COUPLING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 295,186, dated March 18, 1884.

Application filed October 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALBERT K. MANSFIELD, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Safety-Couplers for Railroad-Cars, of which the following is a specification.

My invention relates to an improvement in the apparatus for guiding the link when making a coupling, the object being to decrease the danger of accident to train-men. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section through the draw-bar and cross-section through the end sill of the car. Fig. 2 is an end elevation of the same; Fig. 3, a horizontal section through the draw-bar, and Fig. 4 a longitudinal section through the same.

The same letters refer to the same parts throughout the several views.

The draw-bar G is supplied with a lifting-lever, B A, in two pieces, the part A lying in a recess of the draw-bar. The hub of the piece B is fitted to turn in a hole in the side of the draw-bar, and the fulcrum end of A is fitted to the hub of B. A trip-tongue, E, is also fitted inside the draw-bar, turning free on a center at its lower end. The end sill, M, of the car has a lifting-shaft, H, hung in the bearings I I I I, and having an arm near its center, which is connected by a chain, F, to the free end of the arm B of the lever B A. The lifting-shaft is bent at its ends to form the operating-handles H H.

L L are buffer-blocks of the car.

D is the coupling-link, and J the coupling-pin.

The operation of coupling may be understood by reference to Figs. 1 and 4, which we may suppose to represent the couplers of two cars approaching each other. When there is no link or pin in the coupler, the free end of tongue F drops forward by gravity, so as to

support the coupling-pin. As the cars approach each other, the link, Fig. 1, is raised by means of the handle H, so as to enter the draw-bar, Fig. 4. When the free end of the link meets the tongue E, the tongue is pushed back, and the pin drops to place, completing the coupling.

It has not been convenient to show the pin in Fig. 1, although it would of course be in the draw-bar, holding the link when a coupling is to be effected.

I am aware that prior to my invention draw-bars have been made containing the trip-tongue E; also, that the lifting shaft H is not a new device; also, that link-lifting devices have been used in which a lifting arm or tongue inside the draw-bar head is operated by a shaft coupled to its projecting end outside the head; also, that lifting tongues or arms have been used which are pivoted to both cheeks of the draw-head, and which are operated by swinging or by vertical arms outside the draw-head. I do not therefore claim any of these devices; but

What I do claim, and wish to secure by Letters Patent, is—

1. In a car-coupler, the link-guiding device consisting of the arm G inside the mouth of the draw-bar, and the horizontal arm B outside the same, both secured together to form a single lever pivoted on one side or cheek of the draw-bar, and so arranged that lifting vertically the free end of the arm B causes the free end of the coupling-link to rise, all substantially as described.

2. In the link-guiding device of a car-coupler, the combination of the arm G inside the bar, the horizontal arm B outside the same, the trip-tongue E, and the lifting-shaft H, having an arm near its center, all as set forth.

ALBERT K. MANSFIELD.

Witnesses:

G. L. MANSFIELD,
S. E. TINKHAM.