

R. CARKHUFF.

Car Coupling.

No. 42,835.

Patented May 24, 1864.

Fig. 1.

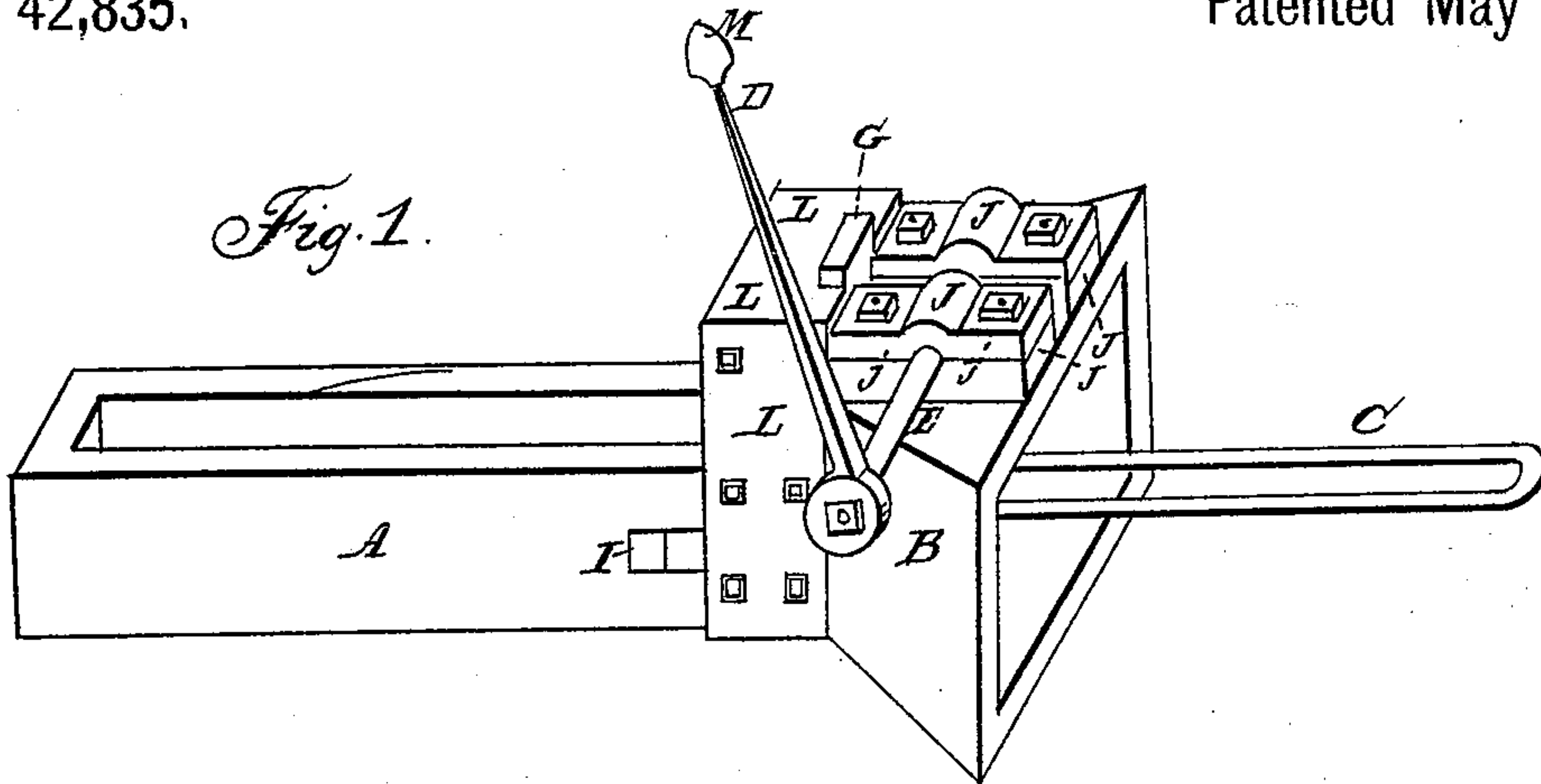


Fig 2

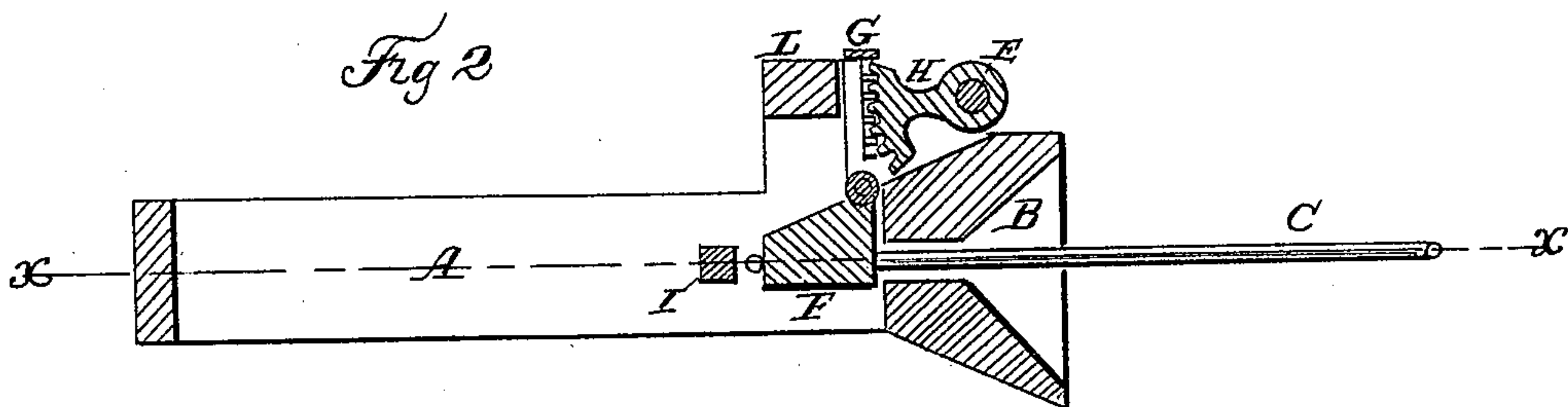


Fig. 3

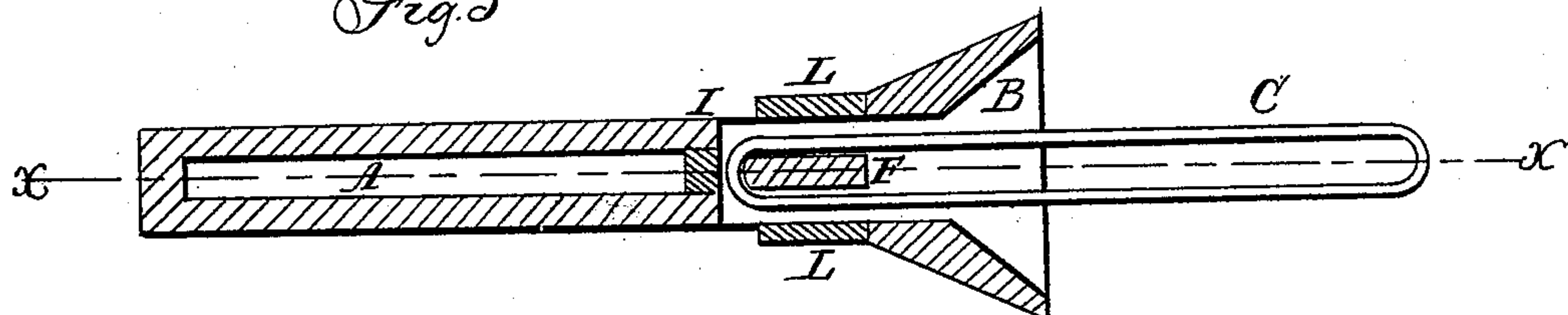


Fig. 4

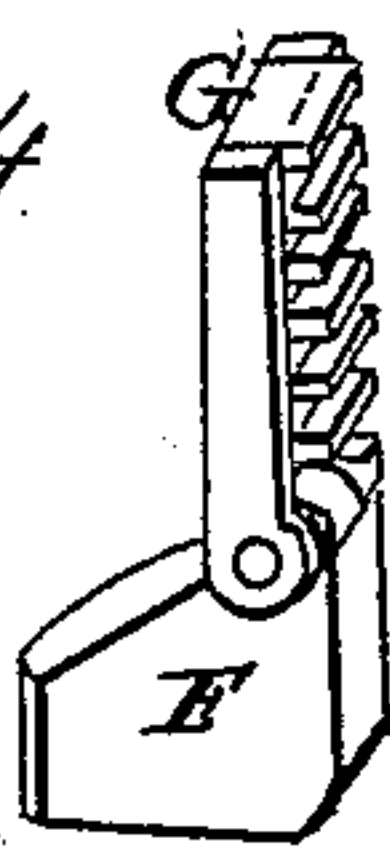


Fig. 5



Witnesses.

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UNITED STATES PATENT OFFICE.

RALPH CARKHUFF, OF LEWISBURG, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-CAR COUPLINGS.

Specification forming part of Letters Patent No. 42,835, dated May 24, 1864.

To all whom it may concern:

Be it known that I, R. CARKHUFF, of Lewisburg, in the county of Union and State of Pennsylvania, have invented a new and Improved Coupling designed for Coupling Railroad and Street Passenger-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure I is a perspective view of my invention. Fig. II is a longitudinal sectional view taken in the line *x x*, Fig. III. Fig. III is a section taken in line of *x x*, Fig. II. Fig. IV is a view of rack G and key F of Figs. I and II and III. Fig. V is a view of a sectional pinion, H, for operating rack G of Figs. IV and II.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in a novel arrangement of the mechanism for lifting the coupling-key F, and at the same time making it self-coupling, whereby the coupling and uncoupling of cars is rendered more easy and safe to the attendant than usual.

To enable those skilled in the arts to fully understand, construct, and use my invention, I will proceed to describe it.

A represents the body or back part of an ordinary coupling, and is made of wrought-iron. B is a cast-iron head to the same, the top of which is made flat, on which two pairs of journal-boxes, J J, for shaft E to work in, are placed.

Directly back of the head B, and bolted fast to the body A, are two cast-iron uprights,

L L, so constructed as to form guides for the rack G.

On the shaft E is placed a sectional pinion, H, which is shown in Fig. V, and gears into the rack G. There is attached to the shaft E a lever, D, by which arrangement the rack G may be lifted to uncouple the cars, and to the rack G is loosely attached the key F, it being different from ordinary coupling-bolts, in that the width is so proportioned to the length that there is but a small amount of loss or slack to be taken up in the starting of the cars, thus preventing all that jerking and jarring of the cars. Back of guides L L is placed a stop, I, as shown in Figs. I, II, and III, thus preventing the link G from going past the key F more than enough to admit the key F to drop into its place.

On the top of lever D there is a ball, M, which acts as a counterpoise-weight to secure the lever D on either side of a vertical line that it may be placed, thus securing the coupling and uncoupling of the cars as in either case it may be desired.

The operation of this machine is obvious to all, and simple enough to need no more explanation.

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

In a car coupling, the use and combination of the rack G, pinion H, and key F, for the purpose set forth.

R. CARKHUFF.

Witnesses:

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