

(No Model.)

E. B. MAGNUS.

CAR COUPLING.

No. 272,285.

Patented Feb. 13, 1883.

Fig. 1.

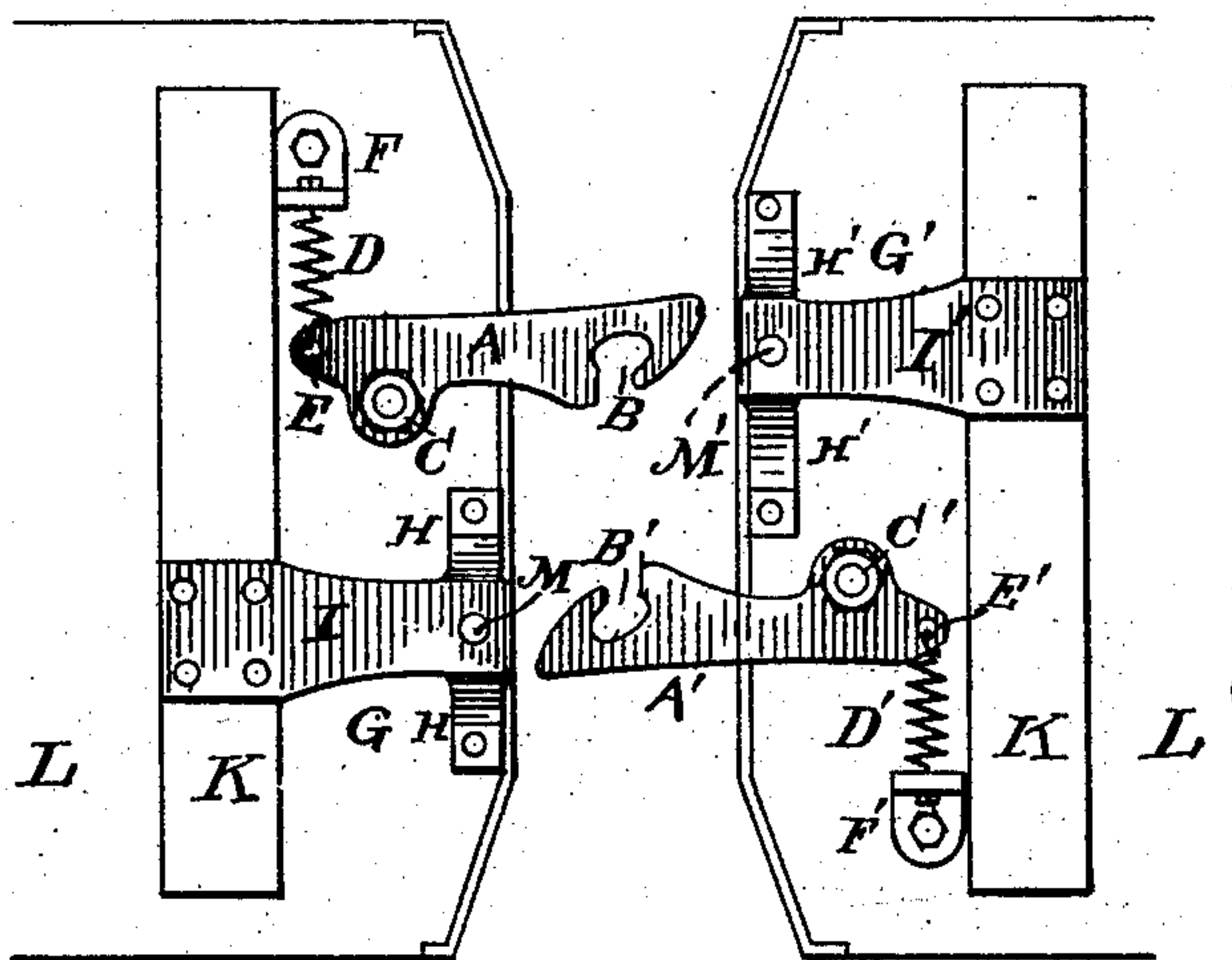
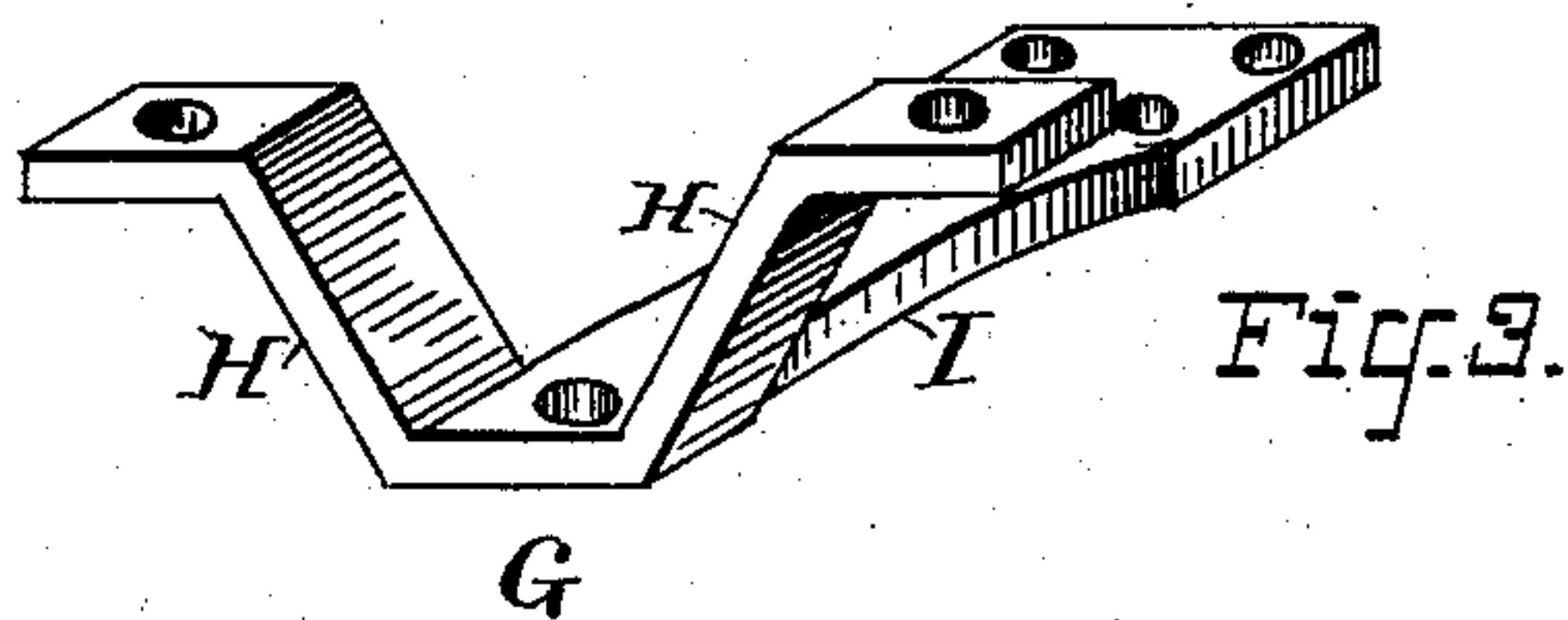
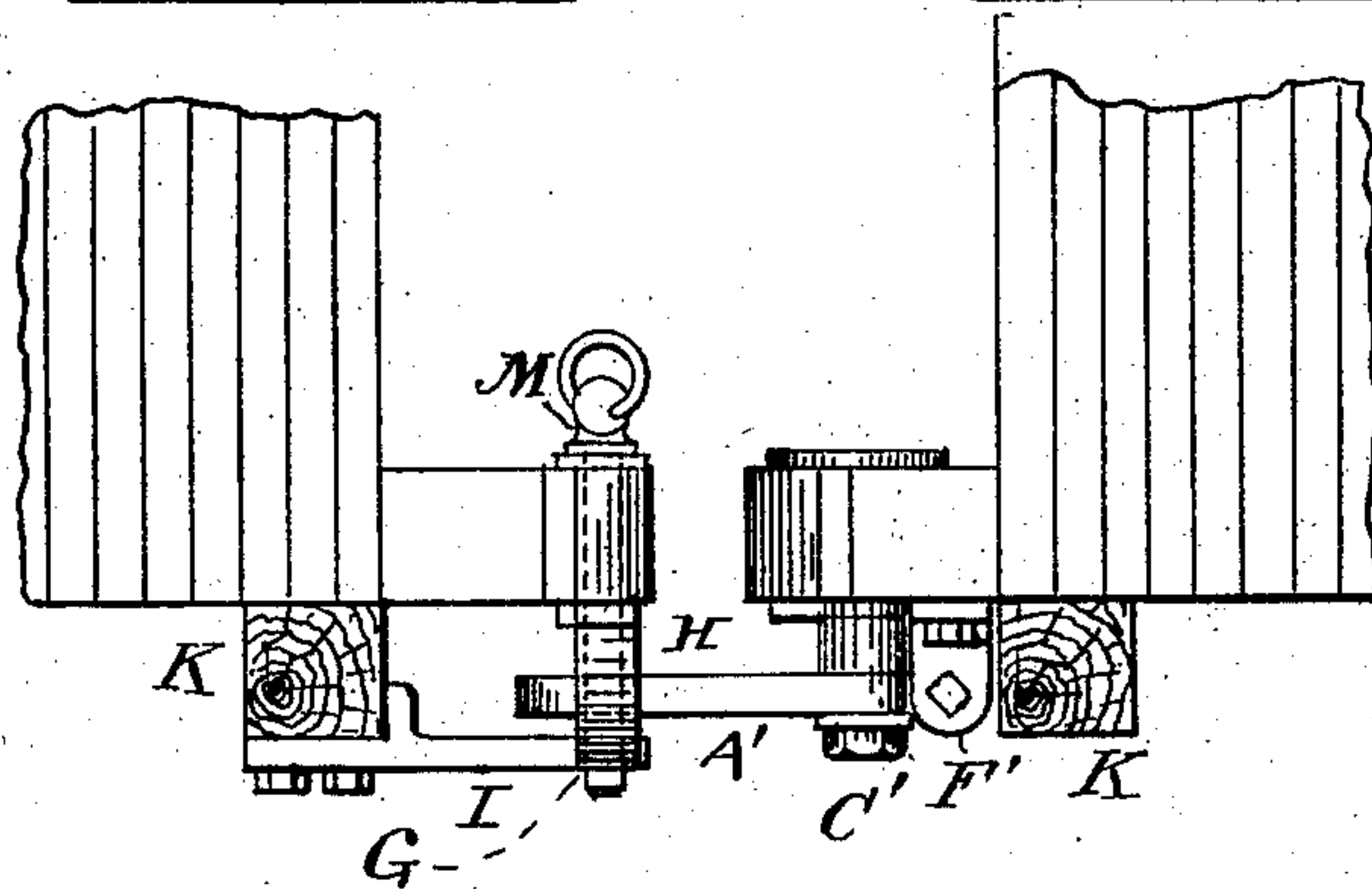


Fig. 2.



ATTEST:

J. A. Hurdle
C. G. Perkins

INVENTOR:

Eugene B. Magnus

UNITED STATES PATENT OFFICE.

EUGENE B. MAGNUS, OF BROOKLYN, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 272,285, dated February 13, 1883.

Application filed December 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, EUGENE B. MAGNUS, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Automatic Duplex Car-Coupling, of which the following is a specification.

My invention relates to a duplex car-coupling which may be used in connection with either freight or passenger cars, of which a full description will be given hereinafter.

Heretofore passenger and freight cars were provided with a single coupling at their ends, with buffers connected therewith. The single couplings are objectionable, from the fact that when a loaded freight-car is connected with that of an empty one the latter in this case stands much higher than the former. Consequently a different size link must be used between the couplings in order to overcome the difficulty caused thereby. The second objection is, that should the coupling break, which is an every-day occurrence, the cars which have been separated from the train are left standing and disabled, and in many cases are telescoped by an approaching train from the rear. No means having been provided to prevent this, it must be naturally presumed that a serious calamity will in many cases follow.

The objections as herein stated are obviated by my duplex coupling, which consists of a coupling-bar having its fulcrum beneath the bed of the car, near the end. The end of said bar is provided with an eye for holding a retracting-spring. The said bar is provided with a curved opening near its foremost end for the reception of a coupling-pin.

My invention further consists of a brace having two extensions bolted to the bottom of the car, near the end, and a main extension bolted to a cross-piece, which is usually employed in the construction of cars. The said brace is provided with an aperture, through which a coupling-pin is passed. The said bars and braces are arranged so that the coupling-bar of one car will hook onto the brace-pin of the other car when pushed together in the usual way.

In the drawings, Figure 1 represents an inverted plan of the duplex coupling in the act of being coupled with each other. Fig. 2 represents the bar of one car coupled with the brace-pin of the second. Fig. 3 is an enlarged perspective of the brace.

In Fig. 1 of the drawings, A and A' are the coupling-bars, provided with a curved opening, B and B', near their foremost ends. C and C' are their fulcrums. D and D' are the retracting-springs, each having one of their ends connected with the eyes E and E'. Their other ends are held by the fastenings F and F'. G and G' are the braces, with arms H H and H' H'. I and I' are the main arms, bolted to the cross-pieces K and K' of the cars L and L'. M and M' are the brace-pins with which the coupling-bars engage when in action.

In Fig. 2 the coupling-bar of one car and the brace and pin of the second car are omitted in order to prevent confusion in their representation.

Modus operandi.—Whenever it becomes necessary to couple one car with that of another, the first step to be taken is to see that the brace-pins M and M' pass through their respective braces, after which the cars are pushed together. The beveled ends of the coupling-bars A and A' strike against their respective brace-pins M and M', causing said bars to be pushed to one side until the openings B and B' reach the said brace-pins, at which time the retracting-springs D and D' pull the said bars back to their former position, which causes the curved openings B and B' to encircle the brace-pins M and M', thereby locking them, which completes the operation.

It will be observed that whenever one of the pins or arms should break or become otherwise disabled the second contrivance is prepared to perform the function of both, thus decreasing the liability of serious accidents, which frequently occur with the single couplings.

It will further be observed that my duplex coupling may be used in connection with or without buffers.

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

5 In an automatic duplex car-coupling, the
combination, substantially as shown and de-
scribed, of the coupling-bar A, opening B, re-
tracting-spring D, brace G, and pin M, all of
which work in connection with a like construc-
tion mounted on an opposite car.

Signed at New York, in the county of New 10
York and State of New York, this 21st day of
December, A. D. 1882.

EUGENE B. MAGNUS.

Witnesses:

CARLISLE NORWOOD,
W. F. CROOK.