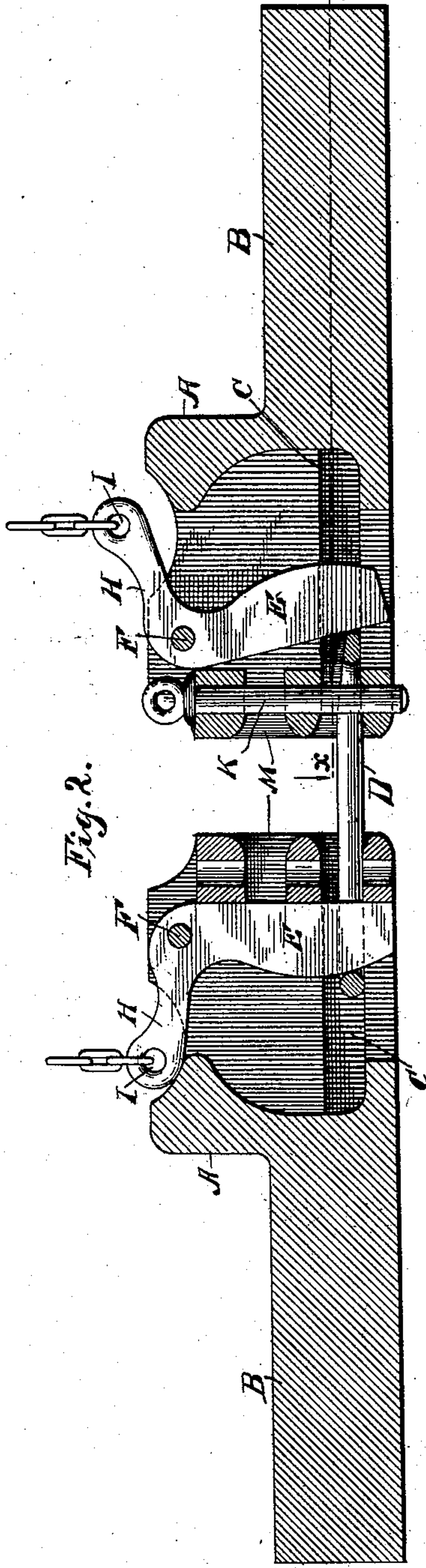
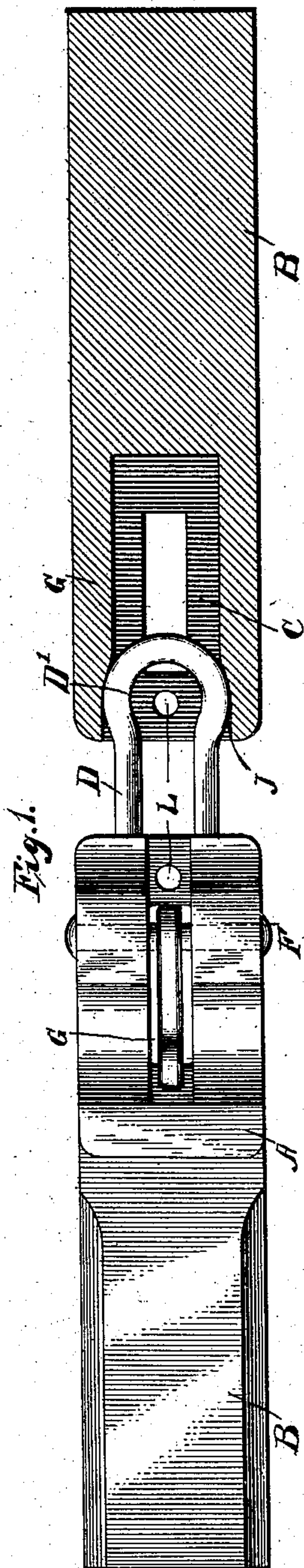


(No Model.)

G. B. JOHNSTON.  
CAR COUPLING.

No. 604,864.

Patented May 31, 1898.



Witnesses:

L. D. Heinrichs

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Inventor

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# UNITED STATES PATENT OFFICE.

GEORGE B. JOHNSTON, OF ST. THOMAS, MISSOURI.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 604,864, dated May 31, 1898.

Application filed October 27, 1897. Serial No. 656,486. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE B. JOHNSTON, a citizen of the United States, residing at St. Thomas, in the county of Cole and State of Missouri, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to a new and useful improvement in car-couplers, and has for its object to provide a simple and effective device of this description which will operate automatically in coupling cars together and which will permit their uncoupling without the necessity of passing between the cars; and a further object of my invention is to provide for the coupling of cars in the ordinary manner by a link and pin when it is not desirable to use the automatic feature of my improvement.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of one draw-head and a section of another embodying my improvement and being coupled together, and Fig. 2 a central longitudinal section thereof.

In carrying out my invention as here embodied the draw-head A, which is formed upon the draw-bar B, has therein a cavity C for the reception of the link D, and this link, as clearly shown in Fig. 1, has one end thereof enlarged, as indicated at D', thus giving the link the general shape of a buttonhole, for the purpose hereinafter set forth. A coupling-lever E is pivoted at F in the upper portion of the head and is adapted to swing within the slot G, so that when the small end of the link D is passed in the cavity C it will force back this lever until the lower end of the latter rides over the inner end of the link, when it will drop within said link, and thus prevent the withdrawal thereof. The lever has a horizontal member H formed therewith, in which is a hole I for the attachment of a chain

or cord or for the insertion of a rod in order that the lever may be swung upon its pivot-point without a person passing between the cars, and when so swung from its vertical position the lever will be disengaged from the link, thereby permitting the latter to be withdrawn from its cavity in uncoupling.

The mouth of the cavity C is enlarged, as indicated at J, so as to receive the enlarged end D' of the link and yet not permit it to pass within the cavity sufficient to engage with the coupling-lever E, and the object of this is to permit the link to be held in the mouth of the cavity by an ordinary coupling-pin K, which is passed through the holes L, formed for that purpose, and when this has been accomplished it will be seen that the backing of two cars together will cause the small end of the link to pass within the cavity C of the opposite draw-head and in so doing force back the coupling-lever E of said head until the latter engages with the link, after which it will return to its normal position and prevent the withdrawal of the link from the draw-head.

Should it become desirable at any time to couple a car having an ordinary draw-head to one of my improved couplers without the use of the automatic feature in the latter, this may be accomplished by using an ordinary coupling-link and passing the coupling-pin K through the holes L after the link has been placed in position, and to provide for the different heights of couplers I form a second cavity M in a higher horizontal plane than the cavity C; and it is obvious that my improved coupler may be applied to an ordinary draw-head by the use of the link D, since the large end D' of said link would then be secured within either of the cavities, while the small end was utilized for engagement with the ordinary draw-head.

One of the principal advantages of my improvement is its exceeding simplicity and the fact that it may be used either as an ordinary coupler or otherwise and that it provides for the operation in connection with couplers of various heights.

The chain I, by which the coupling-lever is manipulated, may be passed upward and attached to a hook or other device at the top of the car, so that a person may uncouple the

car without descending therefrom, and this is of considerable importance in making up trains.

Having thus fully described my invention,  
5 what I claim as new and useful is—

In a car-coupler, two draw-heads, each having a longitudinal vertical slot formed at one end thereof, the walls of said slot having longitudinal ways formed therein near the bottom of the slot, the outer ends of said ways  
10 being deepened to form a flared mouth, bars extending across the forward end of the slot, one above the other, said bars having registering holes therethrough, a swing-pin pivoted in said slot, a coupling-link enlarged and  
15

rounded at one end to fit against the walls of the flared mouth and be limited in its backward movement thereby, the other end being adapted to pass into the ways of the other draw-head and engage the swing-pin, and a coupling-pin adapted to pass through the openings in said bars, as and for the purpose described. 20

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses. 25

GEORGE B. JOHNSTON.

Witnesses:

GEORGE W. SCHELL,  
ANTON HOPEN.