

(No Model.)

S. J. FREEMAN.

CAR COUPLING.

No. 412,492.

Patented Oct. 8, 1889.

Fig. 1.

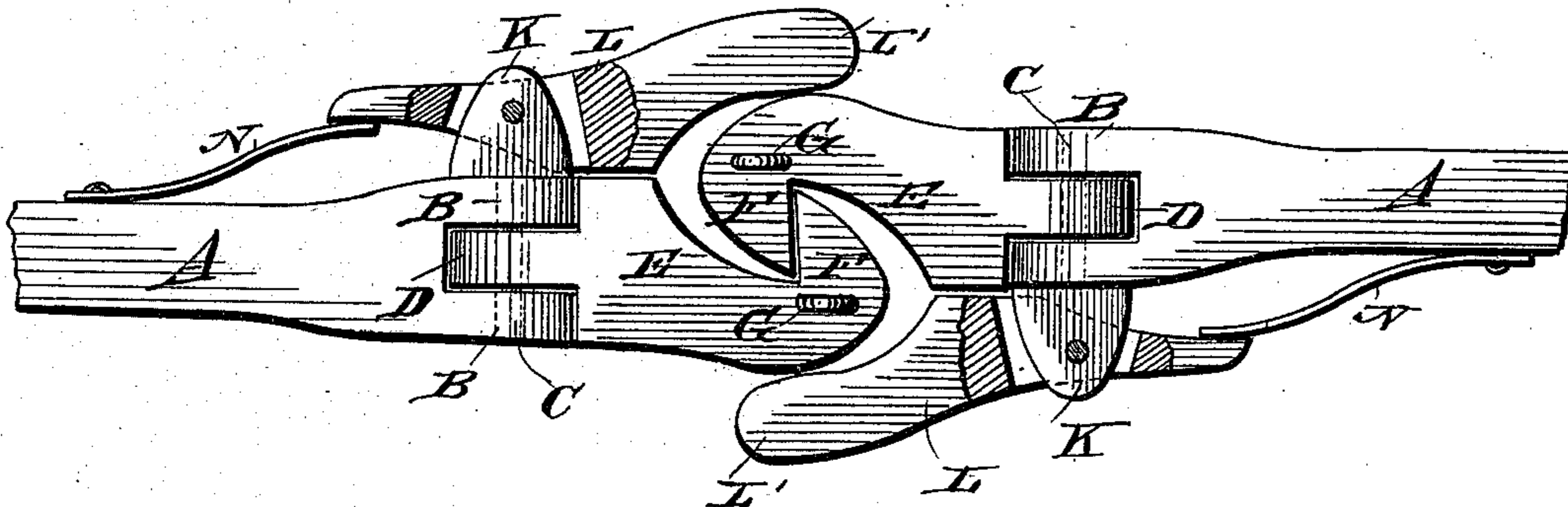


Fig. 2.

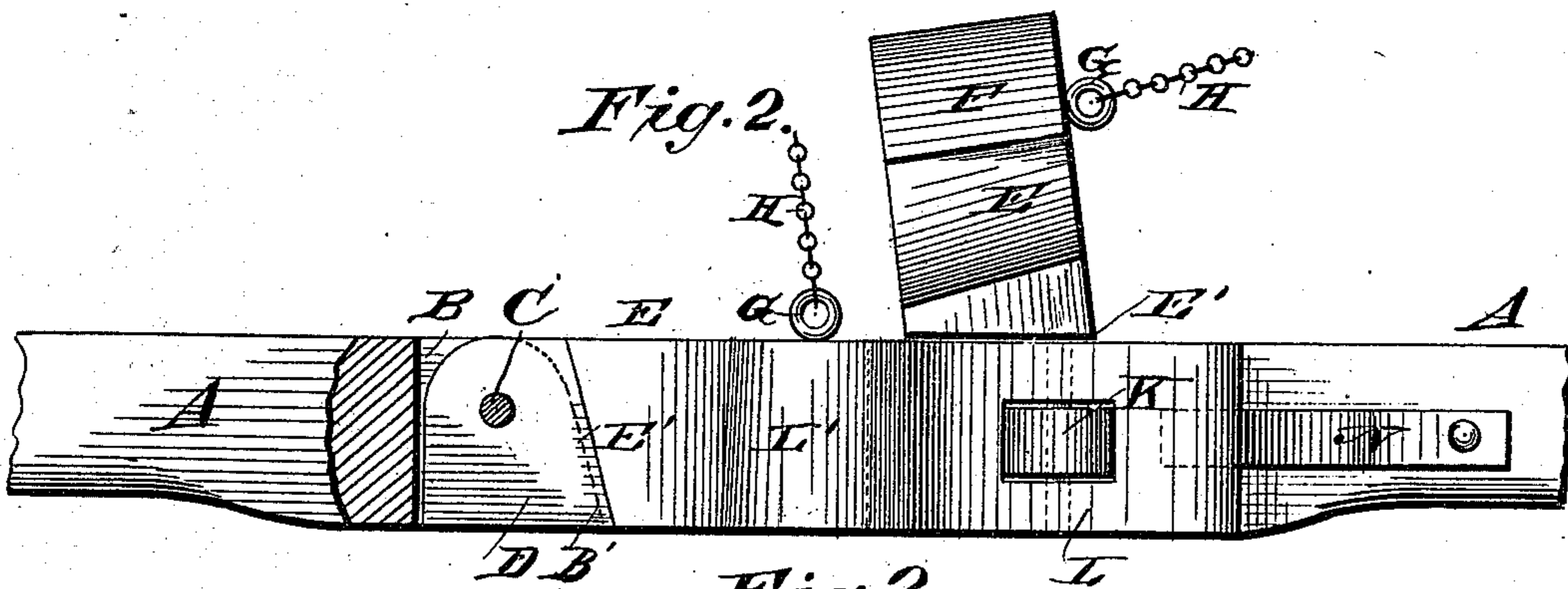
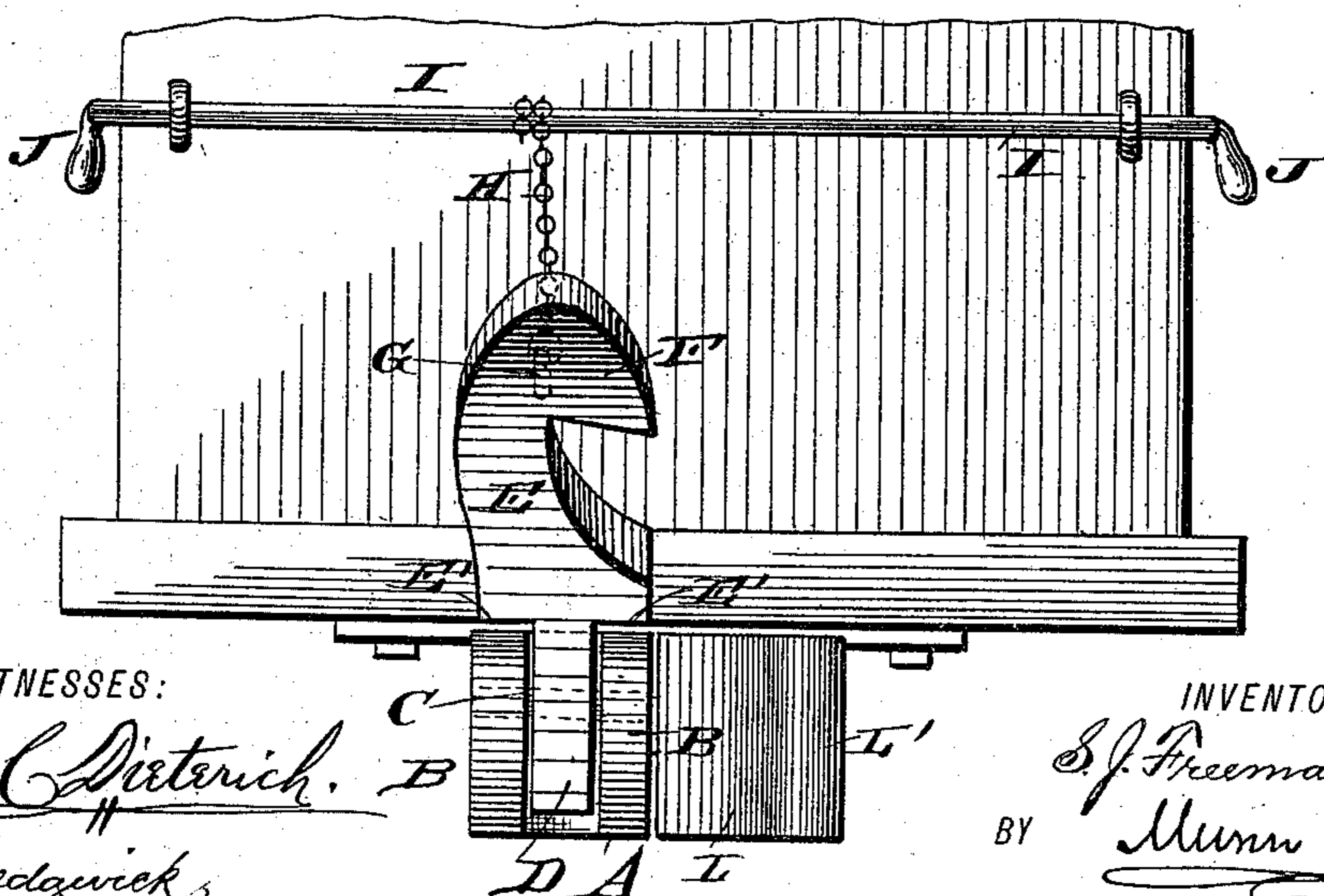


Fig. 3.



WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 412,492, dated October 8, 1889.

Application filed February 16, 1889. Serial No. 300,114. (No model.)

To all whom it may concern:

Be it known that I, SIMON J. FREEMAN, of Bradford, in the county of McKean and State of Pennsylvania, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car-coupling which is simple and durable in construction, effective in operation, and automatic in coupling.

The invention consists in certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of two couplings with parts in section and in a coupled position. Fig. 2 is a side elevation of the same with parts in section and one hook raised, and Fig. 3 is a front view of the improvement as applied to the car.

The draw-bar A is held in the usual manner on the car, and is provided on its front end with lugs B B, through which passes transversely a pin C, forming a pivot for a lug D of a hook E. The lug D projects between the two lugs B B of the draw-bar, and has its inner edge straight, so that the hook E is prevented from swinging downward, and is consequently held in a horizontal position, unless moved upward by the operator, as hereinafter more fully described. The top of the lug D is rounded off onto the rear edge, as is plainly shown in Fig. 2, so as to permit an upward swinging motion of the hook E.

The front end of the hook E carries the hook part F, adapted to engage a corresponding hook part on the hook E of the opposite coupling, as is plainly shown in Fig. 1. The rear edges E' of the hook E are preferably inclined, as is plainly shown in Fig. 2, and engage correspondingly-inclined front edges B', formed on the lugs B of the draw-bar. This arrangement holds the hook E in a hori-

zontal position, in addition to the means previously described.

On the hook part F of the hook E is secured an eye G, connected with one end of a chain H, extending upward and wound on a transverse shaft I, mounted to turn in suitable bearings on the front end of the car to which the coupling is applied. The shaft I extends transversely to the sides of the car, and is provided at each end with a convenient handle J, for turning the said shaft to uncouple the hooks.

From one of the lugs B of the draw-bar A extends horizontally and sidewise a lug K, on which is fulcrumed a lever L, having a forwardly-projecting end L', and having its rear end pressed outward by a spring N, secured to the draw-bar K. The spring N holds the lever L in such a position that when the hook parts F of the hooks E are engaged said outer ends L' press against the opposite hooks, so as to hold them in contact with each other. When the two hooks are in a horizontal position and the cars are moved toward each other, the rounded-off hook ends F slide over each other against the ends L' of the levers L, so that the latter are pressed outward, being yielding on account of the springs N, until the hook parts F have engaged each other, as shown in Fig. 1, being pressed inward by the said yielding or spring-pressed levers L.

When the operator desires to uncouple the cars, he raises one of the hooks E into the position shown in Fig. 2. The hook parts F are then disengaged from each other. Any suitable means may be employed for raising the hooks E, so as to obviate the necessity of the operator stepping between the cars.

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

1. A car-coupler comprising the draw-bar A, the horizontal hook E, pivoted to swing vertically on the front end of said draw-bar, the lever L, pivoted to the side of the draw-bar to swing at right angles to the hook E, and having its front end L' projecting for-

wardly alongside the hooked end F thereof, and a spring pressing the rear end of the said lever outward, substantially as set forth.

2. The combination, with a draw-bar having
5 ing horizontal coupling-hook on its front end pivoted to swing vertically only, of a spring-pressed lever pivoted on the side of the draw-bar to swing horizontally toward and

from the hooked end of said coupling-hook, said lever and hooked end being independent one of the other, substantially as set forth. 10

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Witnesses:

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