(No Model.)

J. CLARRIDGE, Sr.

CAR COUPLING.

No. 389,687. Patented Sept. 18, 1888.

Fig. 1.

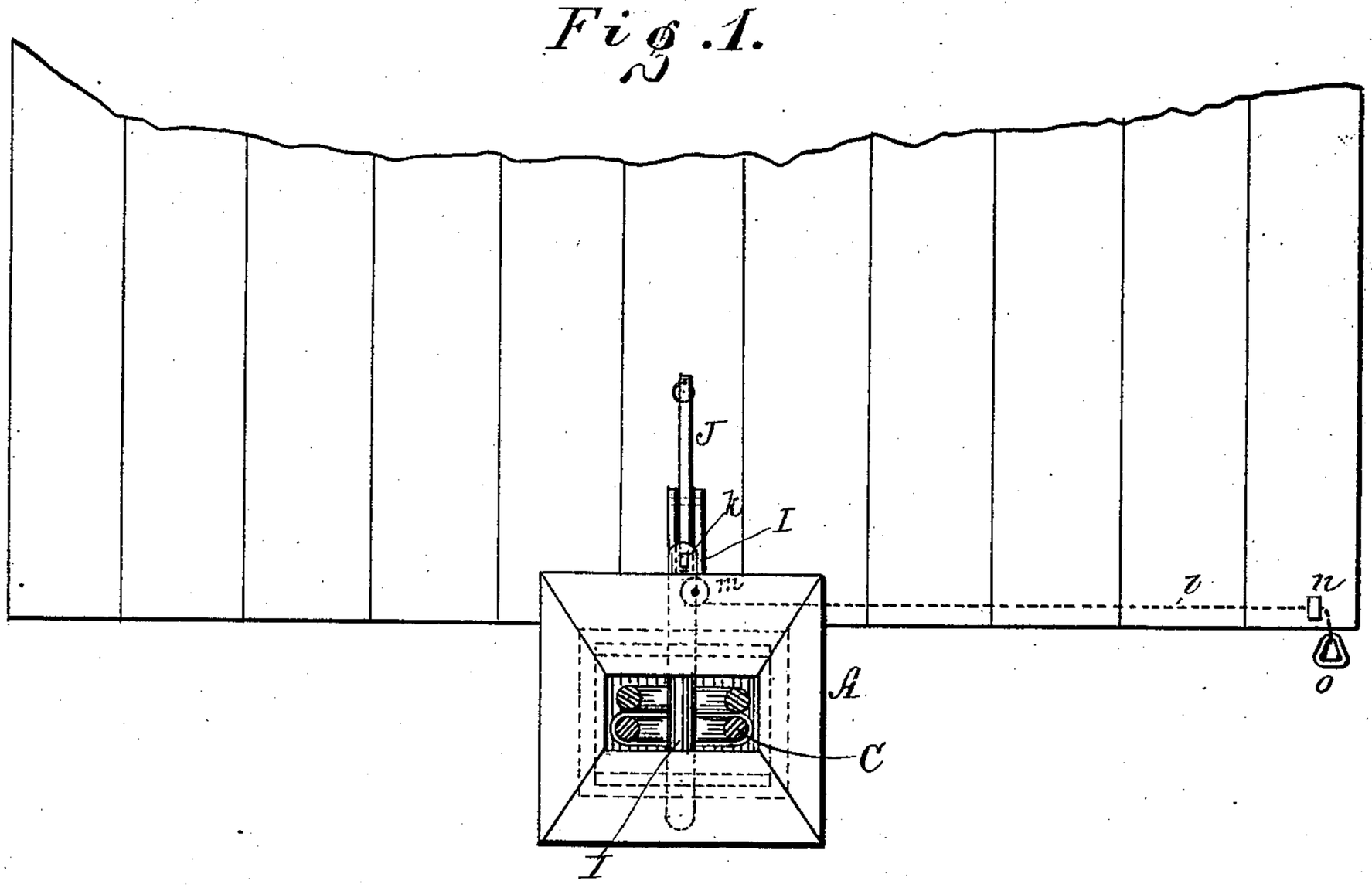


Fig. 2.

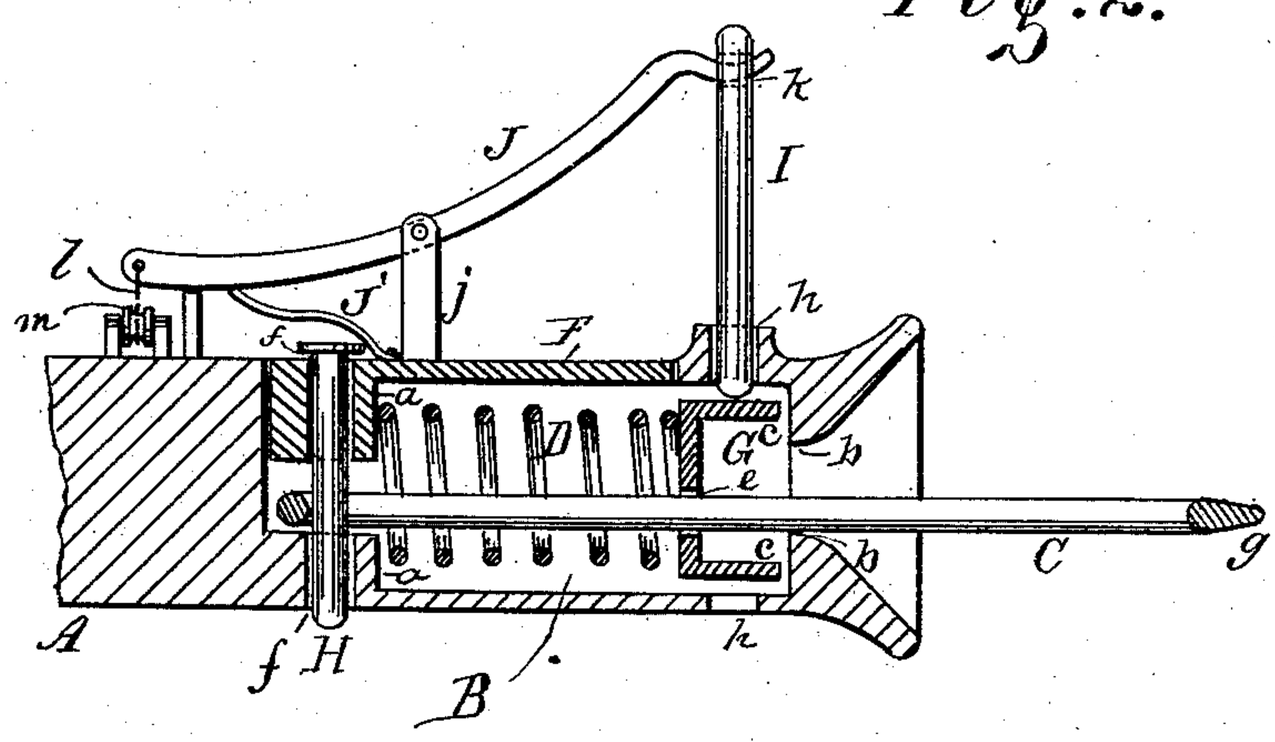
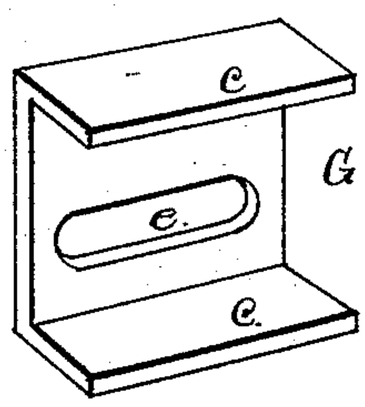


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN CLARRIDGE, SR., OF LIBERTYVILLE, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 389,687, dated September 18, 1888.

Application filed April 2, 1888. Serial No. 269,301. (No model.)

To all whom it may concern:

Be it known that I, JOHN CLARRIDGE, Sr., of Libertyville, in the county of Jefferson and State of Iowa, have invented a new and Improved Car-Coupling, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a front elevation of my improved car-coupling. Fig. 2 is a longitudinal section, and Fig. 3 is a perspective view of the pin-holding plate.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to construct an automatic car-coupling employing ordinary coupling pins and links with the draw-bar of approximately the same form and proportions as those already in use.

My invention consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

The draw-bar A is provided with a chamber, B, for receiving the link C and containing the spring D. It is also furnished with a flaring mouth, E, of the usual description, but with the inner part reduced in size to form a guide for the link. The part F of the top of the draw-bar is made removable and secured by screws or bolts.

In the chamber B are formed shoulders *a*, which act as an abutment for the spring D, and in the mouth of the draw-bar are formed shoulders *b*, for limiting the motion of the follower G. The follower G consists of a plate of iron or steel bent twice at right angles, with the bent-over portions *c* extending in the same direction, and with an oblong aperture, *e*, for the reception of the link C. In the draw-bar, at the rear end of the chamber B, behind the shoulders *a*, are formed apertures *f*, for receiving the pin H, which permanently retains the link C in place in the draw-bar. The outer end, *g*, of the link C is beveled or sharpened, so that when it approaches another link similarly supported it will not be liable to collide with it, but will slip past, either above or below it. Near the front end of the draw-bar are formed holes *h*, for receiving the coupling-pin I.

The position of the follower G when the coupling is ready to be connected with another coupling of the same description is in the forward end of the draw-bar in contact with the shoulders *b*, as shown in Fig. 2. In this position it forms a support for the pin I. Between ears *j*, projecting upward from the top of the draw-bar, is pivoted the lever J, which may be either curved or straight, the forward end of which extends through a mortise, *k*, in the pin I. The rear end of the said lever J is connected with a chain *l*, which passes under the sheave *m* to the side of the car and through a guide, *n*, attached to the end of the car, near the side thereof. The extremity of the chain *l* is provided with a ring, *o*. The rear end of the lever J is pressed upward by a curved spring, J′, attached to the draw-head and resting against the said lever.

When all the parts of the coupling are in the position shown in Fig. 2—that is, with the link C held by the pin H and the pin I supported by the follower G—it is in position to be connected with a like coupling of another car. When the cars approach each other, the link carried by each draw-bar enters the other draw-bar and pushes back the follower G against the pressure of the spring D, allowing the pins I to fall through the links thus introduced, and thus automatically effect the coupling.

When it is desired to uncouple the cars, the levers J are tilted by drawing the chains *l* out, thus withdrawing the pins I from the links and allowing them to escape.

It will be observed that my improved coupling employs the ordinary coupling pin and link, and is therefore capable of being used in connection with the usual pin-and-link coupling.

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

1. The combination, with the draw-bar A, of the spring-pressed follower G, adapted to support the coupling-pin I and having a transverse link-slot, *e*, and a second coupling at the rear end of the draw-head recess, substantially as specified.

2. In a car-coupling, the combination, with the draw-bar A, provided with the chamber B and shoulders *a b*, of the follower G, adapted to support the coupling-pin I and having a

transverse link-opening, *e*, the spring D, arranged to press the said follower forward against the shoulders *b*, and the link extending through the slot and the spring and connected with the draw-head in rear of the spring, substantially as described.

3. In a car-coupling, the combination, with the draw-bar A, provided with the chamber B, shoulders *a b*, and holes *f h*, of the follower G, provided with the aperture *e* and received in the chamber B, the spring D, adapted to press the said follower forward, the link C, extending through the aperture *e*, the pin H, passing through the link C, and the pin I, arranged to be supported and released by the follower G, substantially as described.

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Witnesses:

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