

(No Model.)

J. H. HARRINGTON.

CAR COUPLING.

No. 337,150.

Patented Mar. 2, 1886.

Fig. 1.

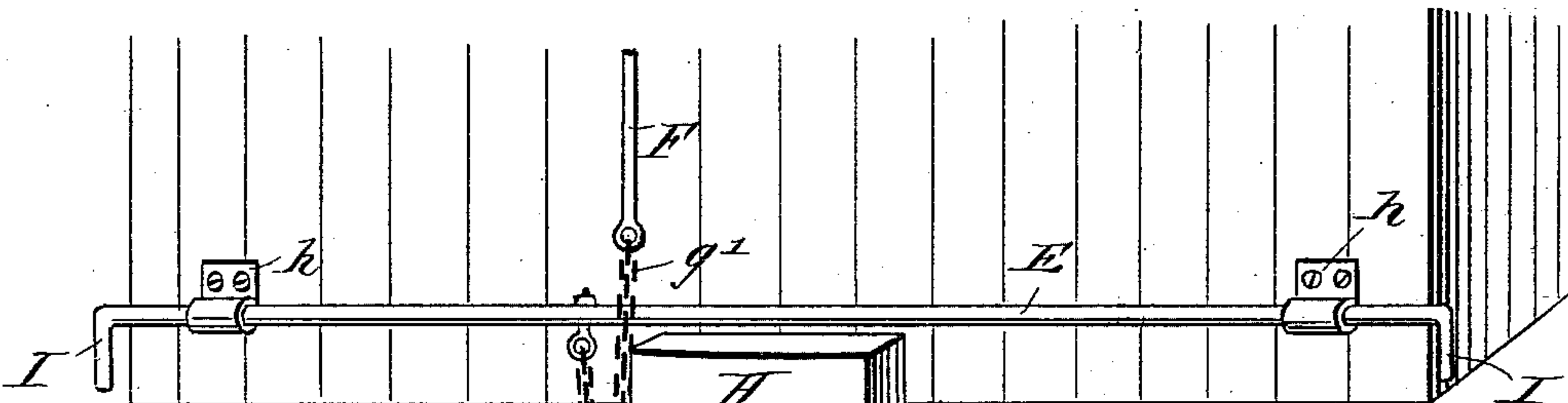


Fig. 4.

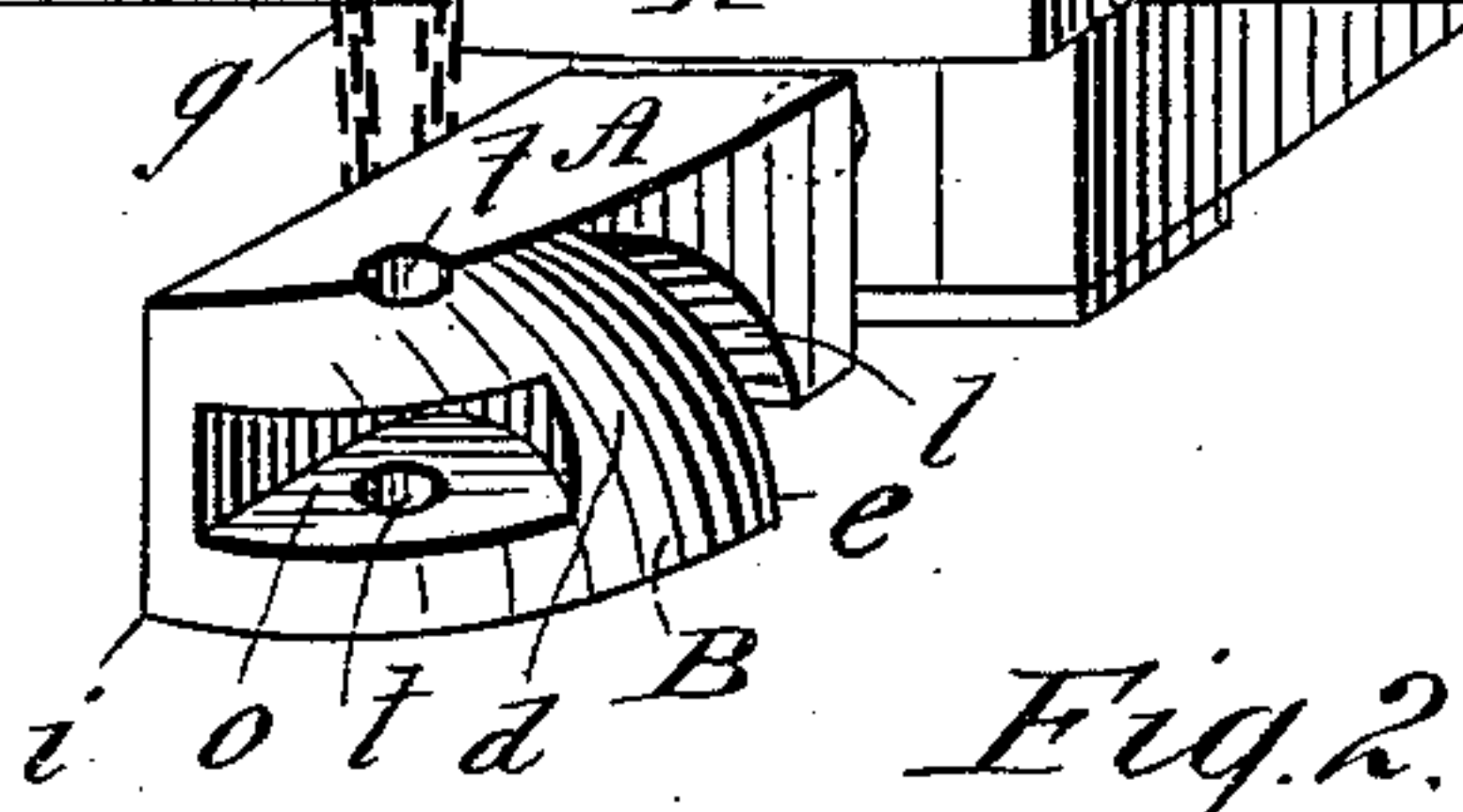
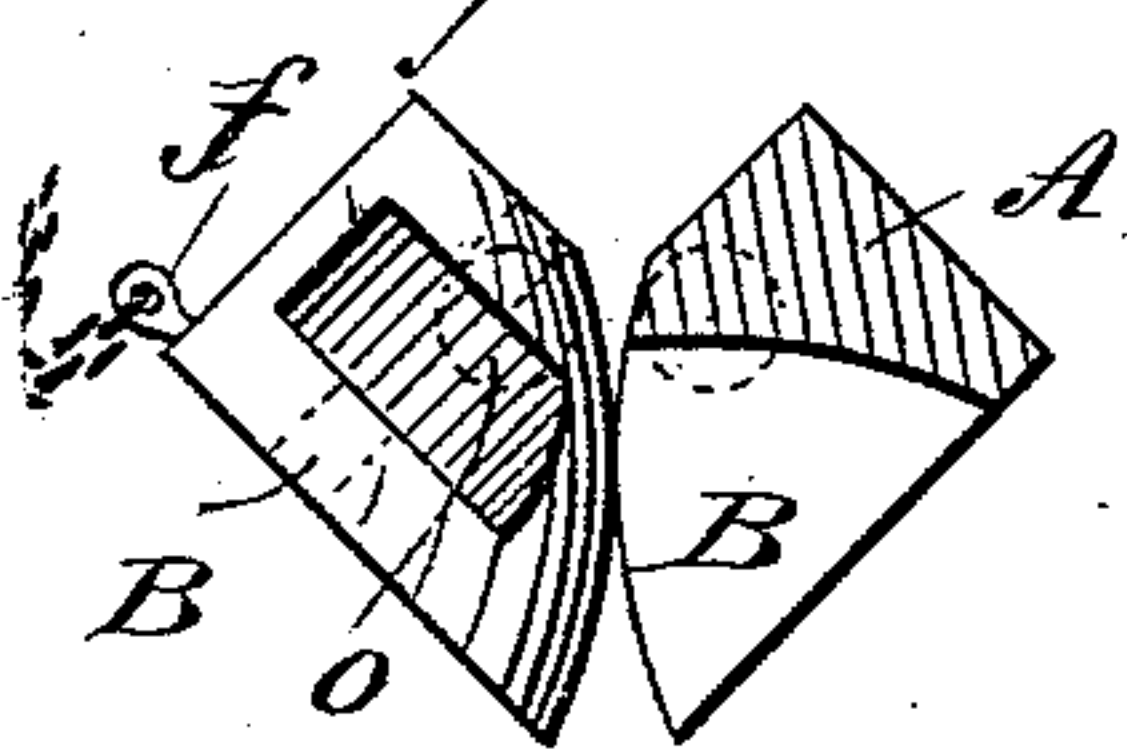


Fig. 2.

Fig. 5.

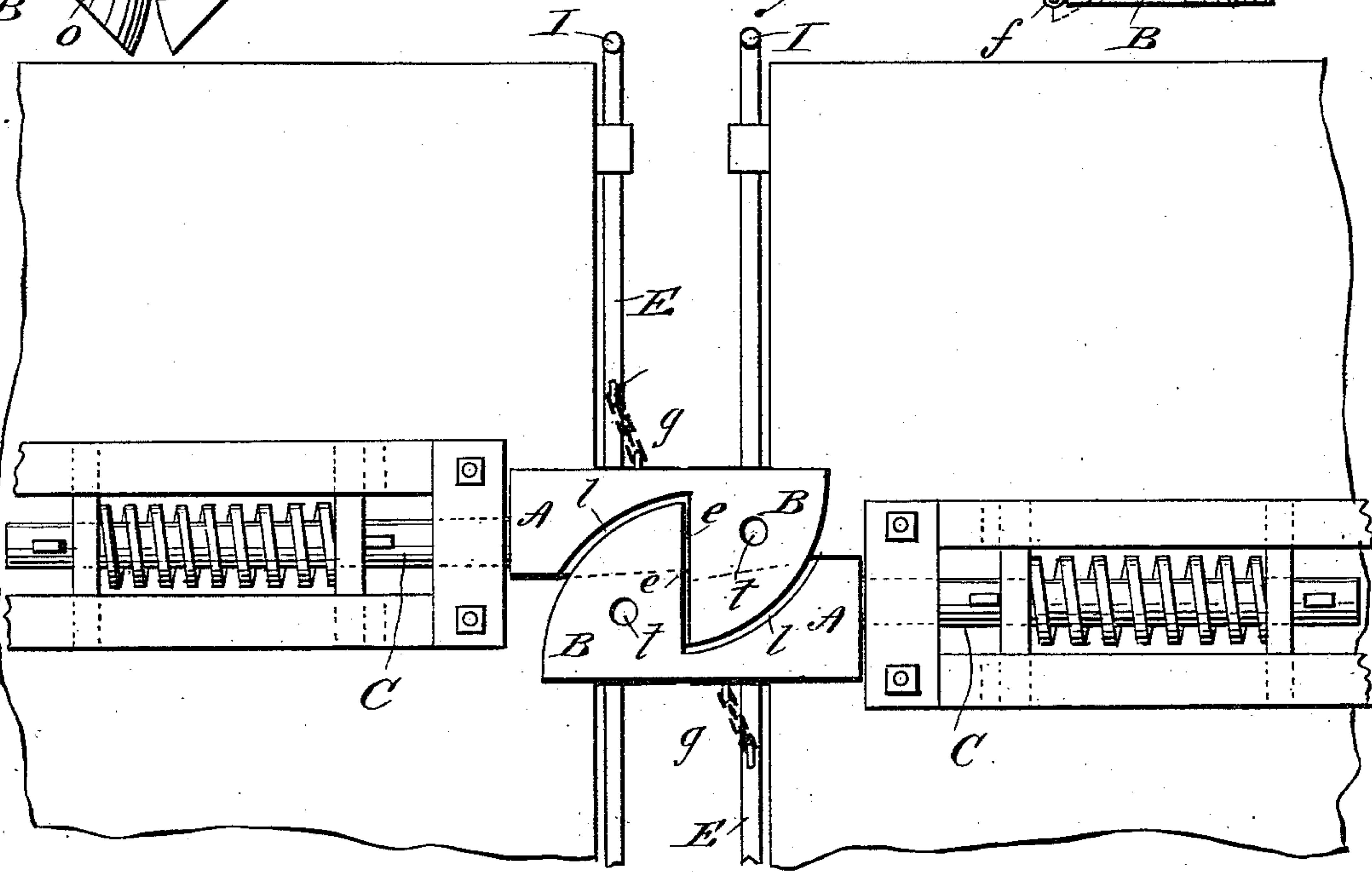
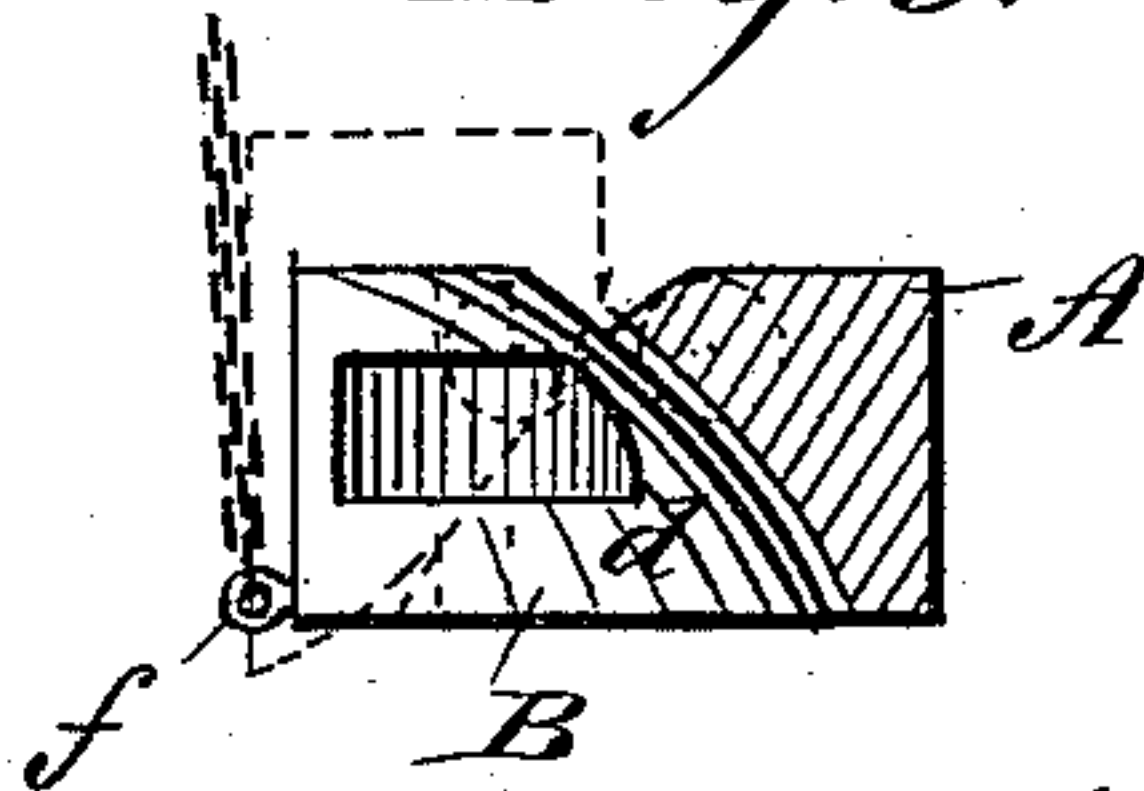
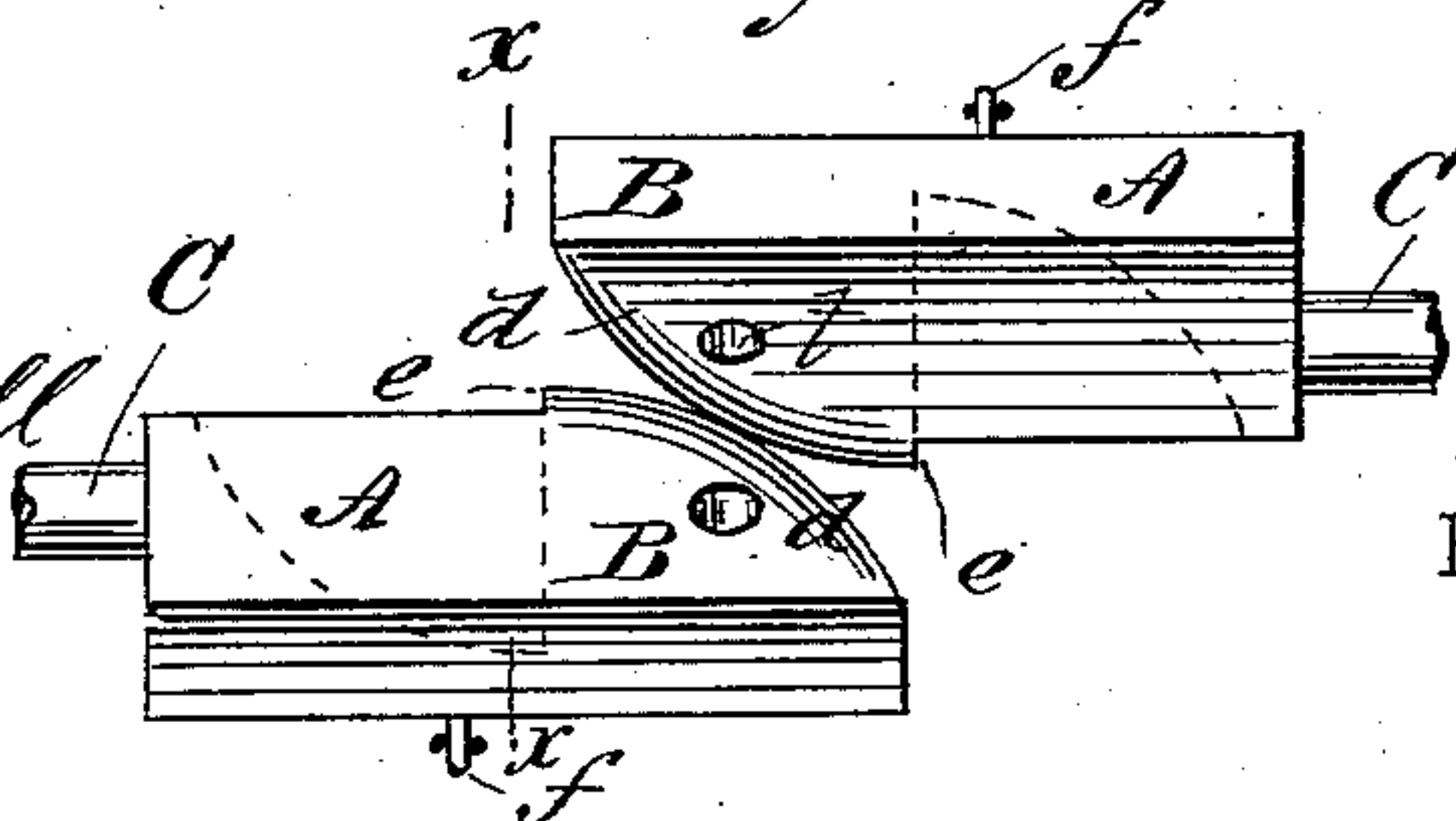


Fig. 3.

WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 337,150, dated March 2, 1886.

Application filed November 27, 1885. Serial No. 184,095. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. HARRINGTON, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to the construction of a car-coupling which is automatic in its action of coupling, and which is simply rotated in order to uncouple the cars to which it is attached, said rotation being brought about by means of a crank-armed shaft and chain, or by a chain and lifting-rod, as will be hereinafter fully explained, and specifically pointed out in the claim.

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

Figure 1 is a perspective view of the end of a box or freight car with my coupling applied thereto. Fig. 2 is a view of the underside of the meeting ends of the two cars, which are represented as coupled with my improved coupling. Fig. 3 is a view of the upper side of the draw head and hook, the parts being represented in the position they assume when the draw-hooks have met, but before the coupling is completed. Fig. 4 is a sectional view taken on line *xx* of Fig. 3. Fig. 5 is a similar view representing the parts as they appear after the coupling is completed.

The draw-head A and draw-hook B, which are formed in one piece and constructed in a manner to be hereinafter described, are secured in the usual manner beneath the flooring at either end of the car by means of the draw shank or bolt C, which extends backward from the upper central corner of the draw-head, to engage with the usual arrangement of follower-plates, guides, and spring, as shown, the draw-shank being free to turn upon its axis. The forward inner and upper edges of the draw-hook are rounded off, as shown at *d*, and the bearing-face of said hook is preferably formed at right angles to the length of the combined draw head and hook, as shown at *e*, the side point of the hook projecting out beyond the side of the draw-head. At *l*, back of the face *e*, the draw-head is concavely recessed, the contour of the recess corresponding to the convex face *d* of the draw-hook. Upon the

outer flat side of the draw-head there is an eye, *f*, to which chains *g* and *g'* are secured, said chain *g* extending upward to connect with a transverse shaft, E, provided at each end with crank-arms I I, and mounted in brackets *h h*, that are fixed to the end of the car, while the chain *g'* is connected to the lower end of a lifting-rod, F, which extends upward to a point slightly above the roof of the car. The chains named support the draw head and hook in the position shown in Fig. 1, for, as before stated, the draw-shank C extends to the rear from the upper central corner of the rear face of the draw-head, so that the bulk of the weight, and consequently the center of gravity, of the draw head and hook is below the draw-shank, and if it were not for the chains *g* or *g'* the edge *i* of the draw head and hook would drop down to a point directly beneath the draw-shank. As it is, however, the chains act to hold the upper faces of the parts in a substantially horizontal plane.

The operation of the coupling is as follows: When two cars provided with my improved coupling approach and the convex faces *d* of their coupling strike the one upon the other, the draw head and hooks will be moved to the positions shown in Figs. 3 and 4—that is to say, the draw-shank will be slightly turned within its bearings—and as the cars continue to approach the deflection of the draw head and hook will be increased until the right-angular faces *e* are in line, when the force of gravity will return the parts to the position in which the combined draw head and hook is shown in Figs. 1 and 2, the point *d* of the hooks entering the concave recesses *l* of the draw-heads, thus coupling the cars. The cars are prevented from coming too close together by buffer-blocks arranged, preferably, as shown at H.

To uncouple the cars, the shaft or rod E is rotated by grasping and turning one of the crank-arms I and winding up the chain *g*, thus turning the combined draw head and hook to the position indicated in dotted lines in Fig. 5, so that the hooks will clear, and the cars may be moved apart; or both couplings could be turned one-half the distance to clear their hooks. This operation of uncoupling may be performed from either side of the car when the brakeman is standing on the ground;

but if he wishes to uncouple when standing on the top of the cars, he simply lifts the rod F to turn the parts to a position to free their hooks.

- 5 In order that the coupling may be used in connection with cars having the old style of draw-gear, I form the face of the draw-hook with a recess, *o*, arranged to receive the coupling-link, the webs above and below the recess
10 being apertured, as shown at *t t*, to receive the coupling-pin by which the link is held.

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

- 15 A draw-head, A, formed with a shank, C,

and a draw-hook, B, the center of gravity of which is below the shank C, the said draw-hook at its forward inner and upper edges being rounded off, as shown at *d*, and having a concave recess, *l*, and a bearing-face, *e*, forming the front wall of said recess and extending at right angles to the length of the hook and shank and beyond the side wall of the head A, in combination with a supporting-chain of a length adapted to support the head in proper position, as shown and described.

JOHN H. HARRINGTON.

Witnesses:

THOS. D. MURPHY,
EDWARD KENNEY.