

(No Model.)

J. H. B. McCRAY.

CAR COUPLING.

No. 347,121.

Patented Aug. 10, 1886.

Fig. 1.

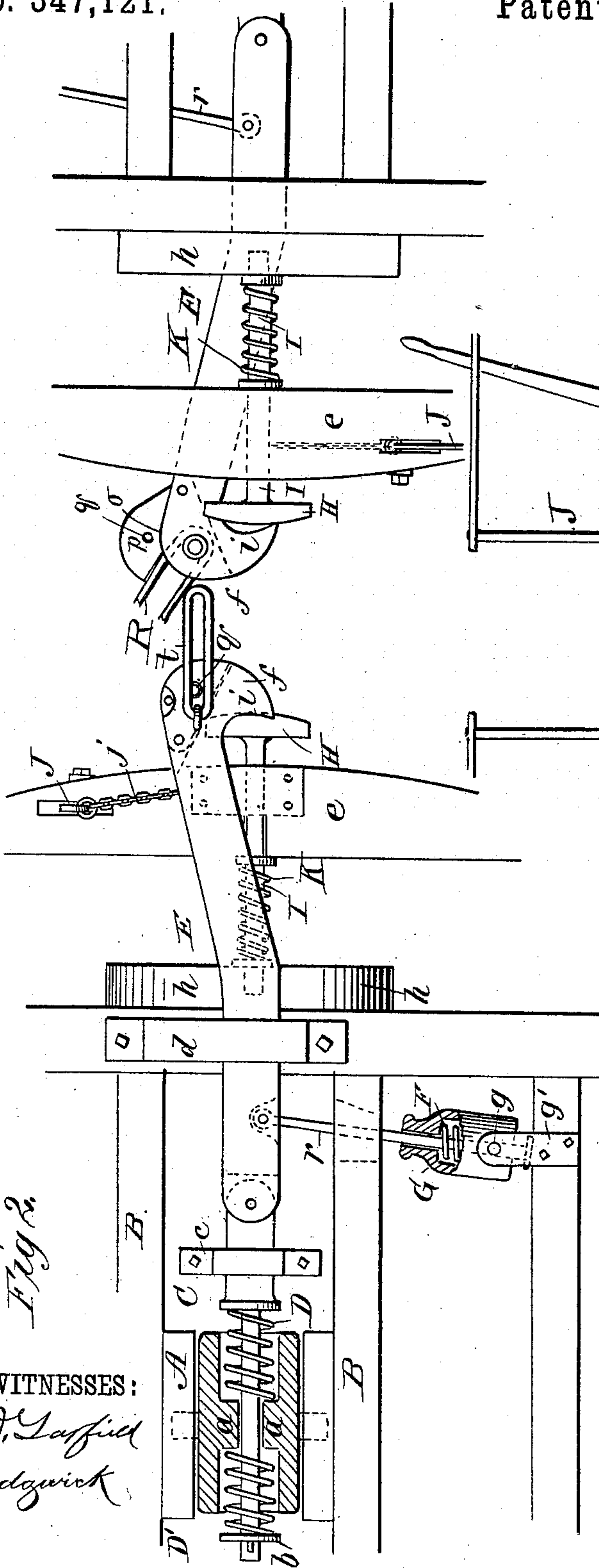
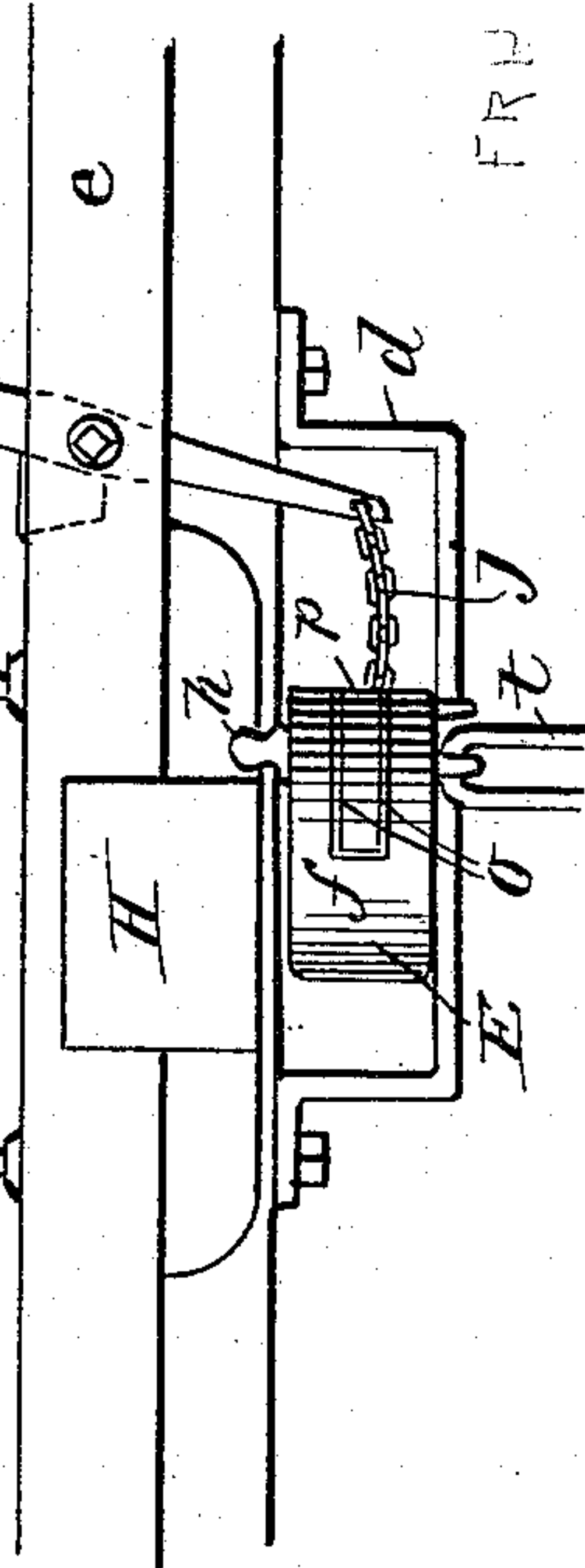


Fig. 2.

WITNESSES:

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Fig. 3.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 347,121, dated August 10, 1886.

Application filed March 26, 1886. Serial No. 196,668. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. B. McCRAY, of Kellerville, in the county of Adams and State of Illinois, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of my invention is to provide a coupler whereby cars may be coupled without danger of accident to the train-men employed to so couple the cars.

To the end named the invention consists of a draw-bar provided with a curved-faced coupling-hook, and of certain other novel features of construction and combinations of parts to be hereinafter explained, and specifically 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 a portion of my improved form of car-coupler, certain parts of the car-platform being broken away to disclose the general arrangement of the coupler.

Fig. 2 is an inverted plan view of the coupler, shown in partial section, and Fig. 3 is an end view of the coupler.

In such a coupler as is illustrated in the drawings above referred to I provide a spring case or barrel, A, formed with trunnions that ride in bearings which are secured to the draw-timbers B B. This spring-case A is provided with a central partition, *a*, through which the shank of the draw-bar C is passed, springs D D' being arranged between the main body of the draw-bar and the central partition, *a*, and between said central partition and a collar, *b*, carried by the inner end of the draw-bar shank. The forwardly-projecting end of the draw-bar is guided and held by a bracket, *c*, and to this forwardly-extending end there is pivotally connected a draw-hook, E, which is supported by a bracket, *d*, and extends outward beyond the platform end timber, *e*. The projecting end *f* of the hook E is curved or rounded off toward the point of the hook, and this draw-hook is normally held in the position shown in Fig. 2 by a spring, F, that is arranged within a case, G, which said case is pivotally connected to the sill of the car, being provided with trunnions *g*, that ride in

bearings formed in supporting-brackets *g'*, connection between the spring and the draw-hook being established by means of a rod, *r*.

Just above the extending end of the coupling-hook E there is arranged a buffer-head, H, carried by a bar, I, and mounted in properly-constructed bearings formed in the end timber, *e*, and also in a block, *h*, that is carried by one of the cross-beams of the car, the buffer-plate being held extended by a spring, K, that is coiled about its bar I. The coupling-hook is connected by a chain, *j*, with a lever, J, that is pivotally mounted within a slot or recess formed in the end timber, *e*, the arrangement being such that by throwing the lever over, the coupling-hook may be drawn back against the tension of the spring F.

In operation, two cars provided with such coupling-hooks as have been described being brought together, the curved faces *f* of the hooks E will strike the one upon the other, and the hooks be thrown out against the tension of their springs F until the buffers H are in contact, to ease the shock incident to the meeting of the cars, and as the points of the hooks pass the springs F will act to draw the hooks forward so that their jaws *i* will interlock, as will be readily understood. When it is desired to uncouple the cars, the levers J are thrown over, so as to separate the jaws of the locks, and the cars may be then moved apart.

In order that cars provided with my improved form of coupler may be coupled with cars having an ordinary form of link-coupling, I form a recess, *o*, in the head of the hook E, which recess is normally closed by a pivotally-mounted plate, *p*, which has a face to correspond with the contour of the face of the hook, as indicated in Fig. 2. Apertures *q* are formed through the draw-hook E, and also through the plate *p*, and in these apertures there is inserted a coupling-pin, by means of which the car may be coupled through the medium of a link, R, to a car having the ordinary form of coupler, the coupling-pin serving at other times as a retaining-pin for the plate *p*.

It would sometimes happen that a car provided with my improved form of coupler would be too high to couple with a car carry-

ing an ordinary form of coupler, and in order to provide for such an emergency I secure a link, *t*, to the under side of the coupling-hook E, which link may be used as a coupling-link 5 between the cars.

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

1. In a car-coupling, the combination, with 10 a pivoted and spring-actuated draw-bar and the draw-hook E, pivoted thereto, of the pivoted casing G, the spring F in said casing, and the rod *r*, connected to the said spring and draw-hook, substantially as herein shown and 15 described.

2. In a car-coupling, the combination, with the pivoted casing A, the draw-bar C in the

same, and the springs D, surrounding the said draw-bar, of the draw-hook E, pivoted to the forward end of the draw-bar, the pivoted case 20 G, arranged at one side of the draw-hook and near the pivoted end thereof, the spring F in the case, and the rod *r*, connected to the spring F and draw-hook, substantially as herein shown and described. 25

3. In a car-coupling, the combination, with a draw-hook having a recess in its head, of an apertured plate pivoted to the draw-hook and working in the recess of the same, substantially as herein shown and described.

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Witnesses:

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CLARK RAUGH.