

O. H. DRINKWATER.
Car-Coupling.

No. 226,727.

Patented April 20, 1880.

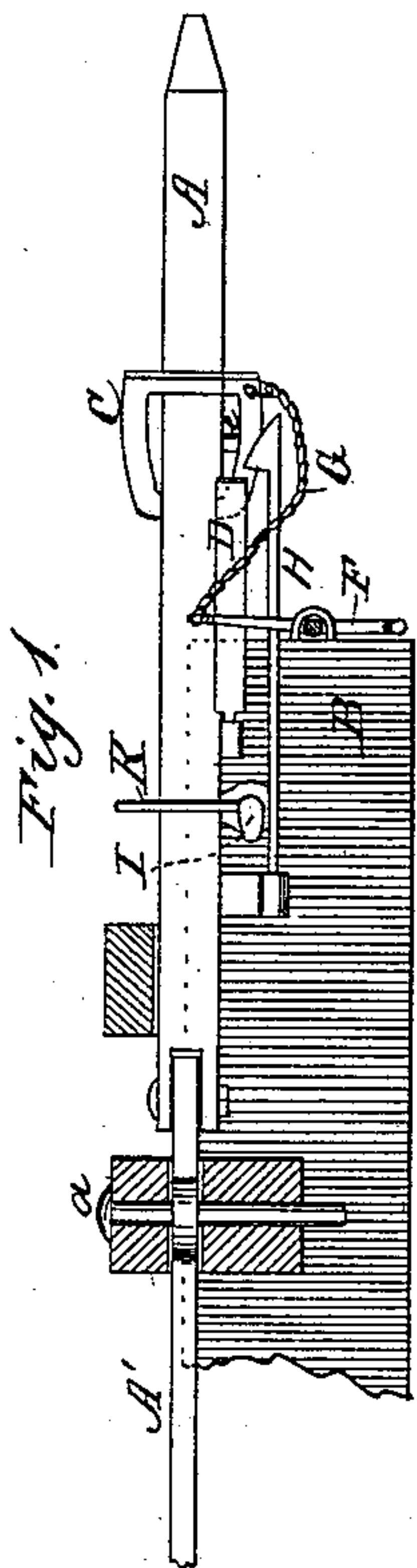


Fig. 1

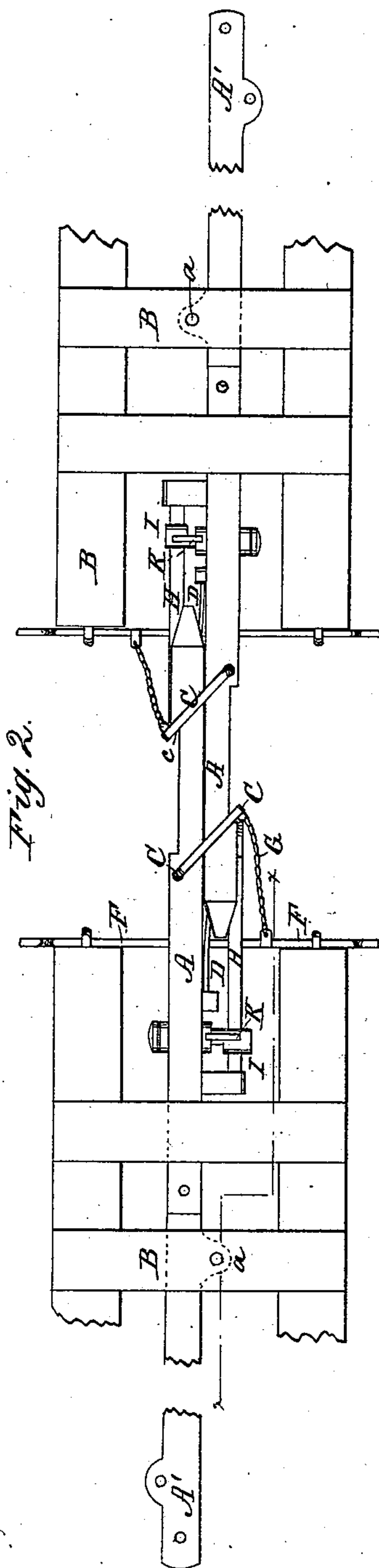


Fig. 2.

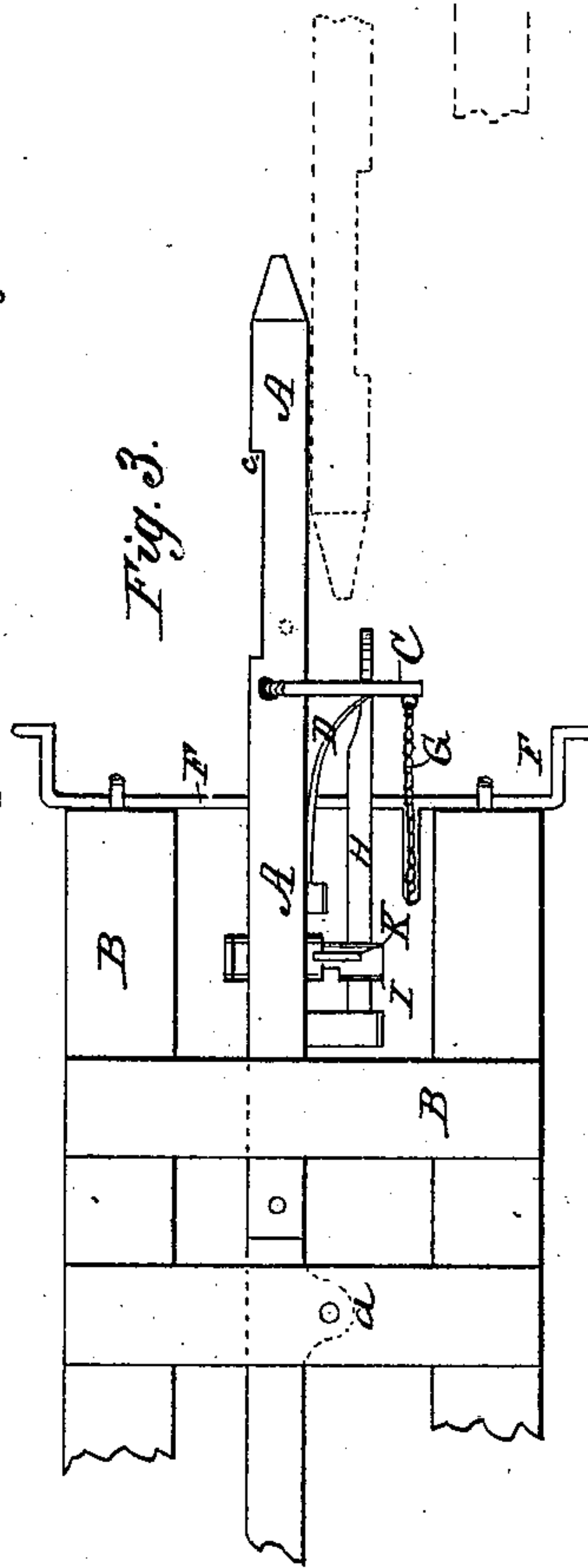


Fig. 3.

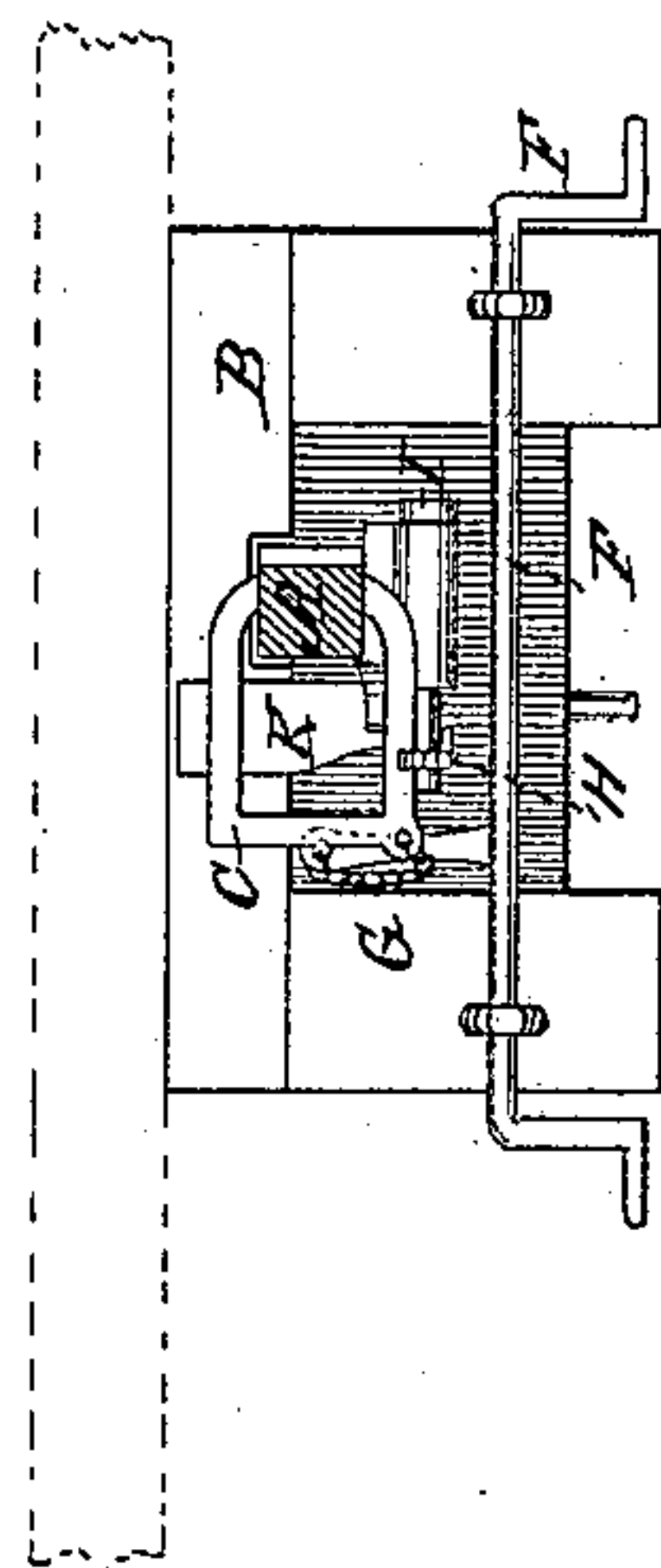


Fig. 4.

WITNESSES:

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ORLO H. DRINKWATER, OF CEDAR POINT, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 226,727, dated April 20, 1880.

Application filed December 9, 1879.

To all whom it may concern:

Be it known that I, ORLO H. DRINKWATER, of Cedar Point, in the county of Chase and State of Kansas, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention has for its object to provide a simple but efficient automatic car-coupling.

10 The device consists, mainly, of a draw-bar having a hook or shoulder and a link or clasp, which is pivoted and adapted to receive and lock with the shoulder or hook of a draw-bar attached to the opposite car.

15 The links or hinged clasps are held engaged with the respective draw-bars by means of a spring or other suitable devices, and may be opened to allow uncoupling by means of rods, levers, or other means. The hinged loop or 20 clasp is held open by a spring-catch until the latter is acted on automatically, thus causing it to release the clasp.

25 The details of construction and arrangement of parts and the operation of the same are as hereinafter described.

In the accompanying drawings, forming part of this specification, Figure 1 is a longitudinal vertical section on line *x x*, Fig. 2. Fig. 2 30 is a plan view of the two parts of a complete coupling locked together. Fig. 3 is a plan view of one of the parts of the coupling, showing the link in position to be tripped by the draw-bar of opposite car. Fig. 4 is a cross-section.

35 The draw-bars A may be pivoted to the car-timbers B, or to bars or rods A', which are intended to form continuous draw-bars lying lengthwise of the car, and attached to the trucks by king-bolts *a*, and supported in keep- 40 ers or by other means which allow a certain necessary amount of lateral play. The outer end of each draw-bar A is beveled or pointed, and has a hook or shoulder, *c*, on one side thereof. A rectangular iron link, C, is hinged 45 to each draw-bar A at a point in rear of such shoulder and near the end of the car. The body of each draw-bar is preferably recessed or grooved vertically on the side to form a box or socket for the link; but the latter may 50 be attached in other ways. Each link swings on that side of its draw-bar which is opposite

the shoulder *c*, and the free end of the link is held forward in close proximity to the side of the draw-bar by means of a plate-spring, D, but is prevented from coming into actual con- 55 tact therewith by a lug or stop, *e*, Fig. 1.

The said spring may be arranged in various positions and have different forms; but I prefer to place it in rear of the link and attach it to the draw-bar, as shown. 60

The function of the stop *e* is to hold the link in position, to allow the head of a draw-bar to enter between its free end and the side of the draw-bar to which it is attached.

When two cars provided with my improved 65 coupling come together their respective draw-bars slide alongside or near each other, back to back, and the pointed end of each passes beneath the free end of the link C of the other, so that its shoulder or hook *c* locks with the 70 link, as shown. The springs D will then serve to hold the parts thus coupled until released by the positive action of a device operated by the brakeman or other person. I employ for this purpose a crank or bent rotating lever, 75 F, and chain G. The lever is arranged beneath the draw-bar and attached to the front of the platform or end of the car and to the chain, the latter extending from an arm of the lever to the free end of the link C. 80

It is often requisite that the link shall be held open after being swung out of engagement with the shoulder *c* of the draw-bar. To this end I arrange a spring-catch, H, parallel to the draw-bar, and attach it to the same at a point be- 85 neath the front or body of the car. The beveled point of the hook is in proximity to the link C, so that when swung open and into a position at right angles to the draw-bar it will engage or lock with the hook, as shown in Fig. 3. 90 In order to disengage them automatically, I employ an eccentric, I, having a tappet-arm, K. The eccentric is pivoted to the draw-bar, so as to act on the middle or rear portion of the spring H, and the arm K projects verti- 95 cally from said eccentric, so that when another draw-bar passes through the open link its point will strike the arm K, and thereby rotate the eccentric and depress the catch H, thereby releasing the link, upon which the 100 spring D will throw it back to its normal position.

What I claim is—

1. The combination, with the draw-bar and spring-pressed link hinged thereto, of the spring-hook and a device for depressing the same to release the link, as specified. 5
2. The combination of the spring, hook, hinged link, and draw-bar, the eccentric, and its lever-arm K, arranged to operate as specified.
- 10 3. The combination of the crank or bent lever and its chain with the shouldered draw-bars, the spring-pressed link, hinged to a draw-bar so as to swing laterally, as shown and described.
- 15 4. The combination of the draw-bars, having shoulders on their outer sides, and the clevises or links, pivoted to the draw-bars and swinging horizontally, as shown and described, so that the coupling is effected by each draw-bar passing through the opposite link, which then engages its shoulder, as shown and described. 20
5. The combination of the hinged links and the springs attached thereto with the shouldered draw-bars, as specified. 25
6. The combination of the stops and springs with the draw-bars, having pointed and shouldered ends, and the hinged links, all arranged as shown and described, to operate as specified.

ORLO H. DRINKWATER.

Witnesses:

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