

(No Model.)

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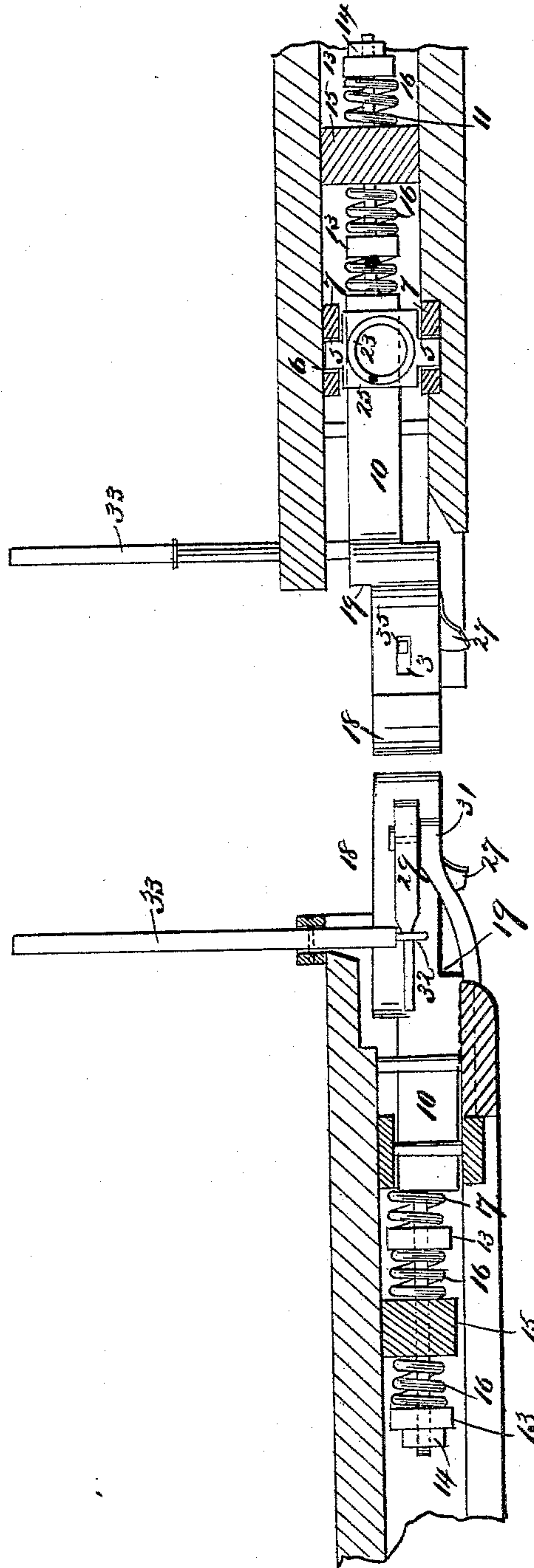
C. C. HASKIN.

CAR COUPLING.

No. 359,785.

Patented Mar. 22, 1887.

*Fig. 1*



WITNESSES:

*F. M. Ardle*  
*C. Sedgwick*

INVENTOR:

*C. C. Haskin*

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(No Model.)

2 Sheets—Sheet 2.

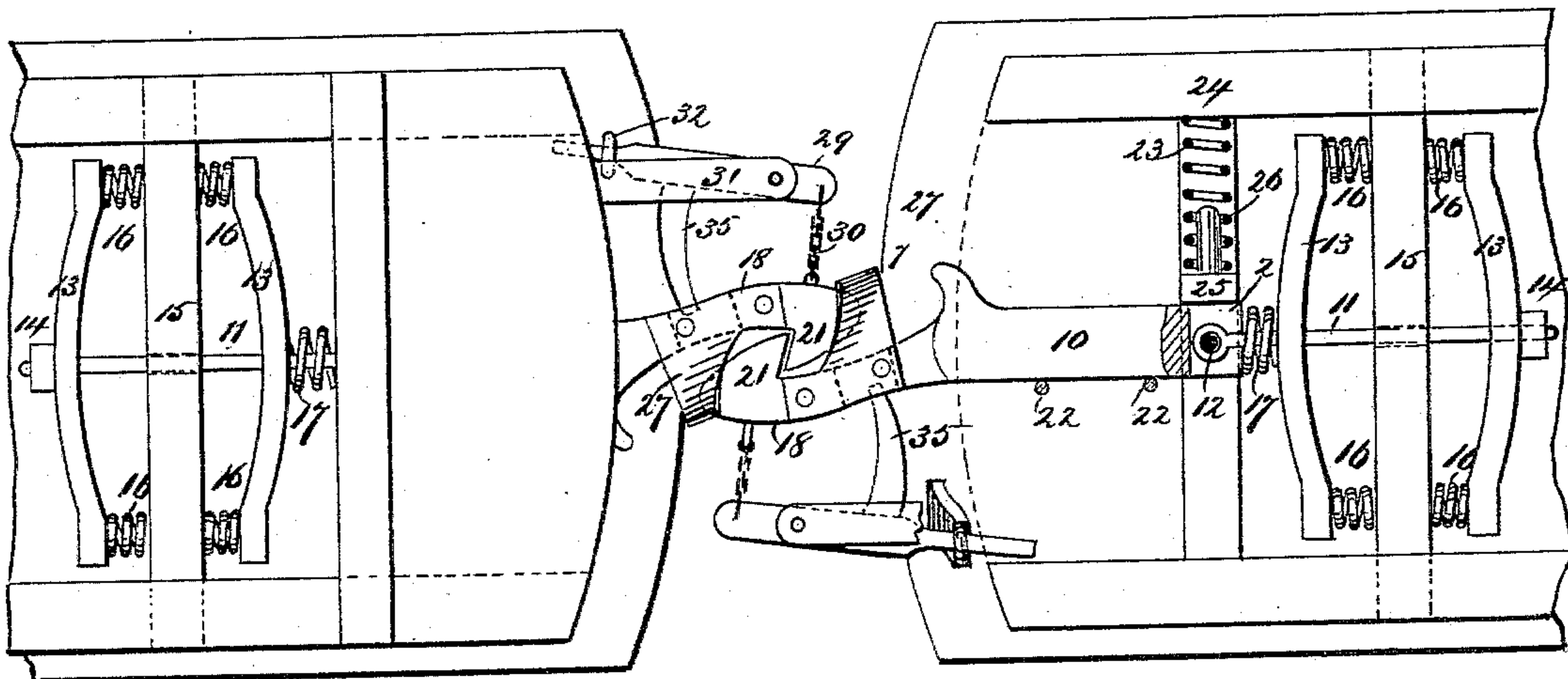
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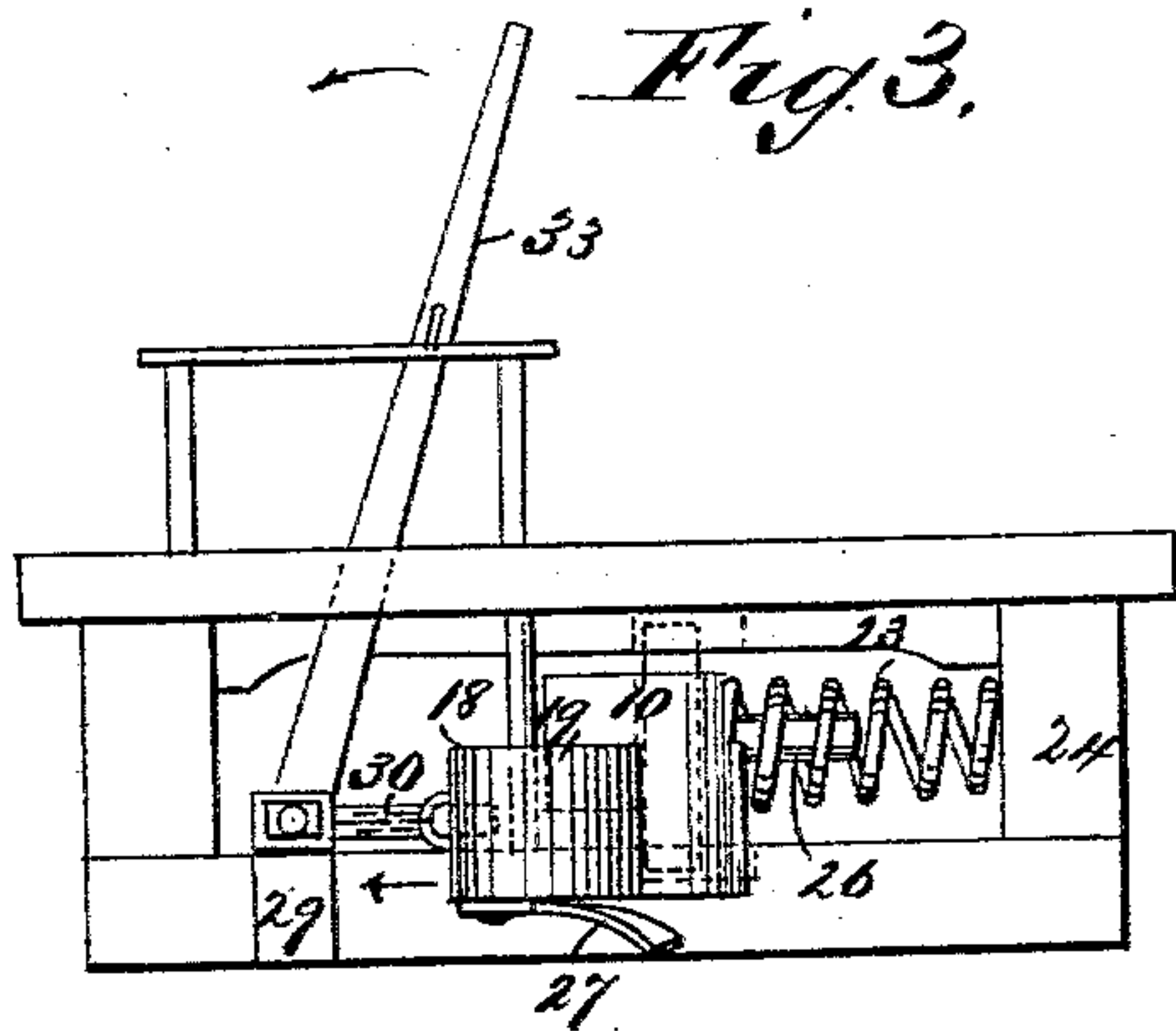
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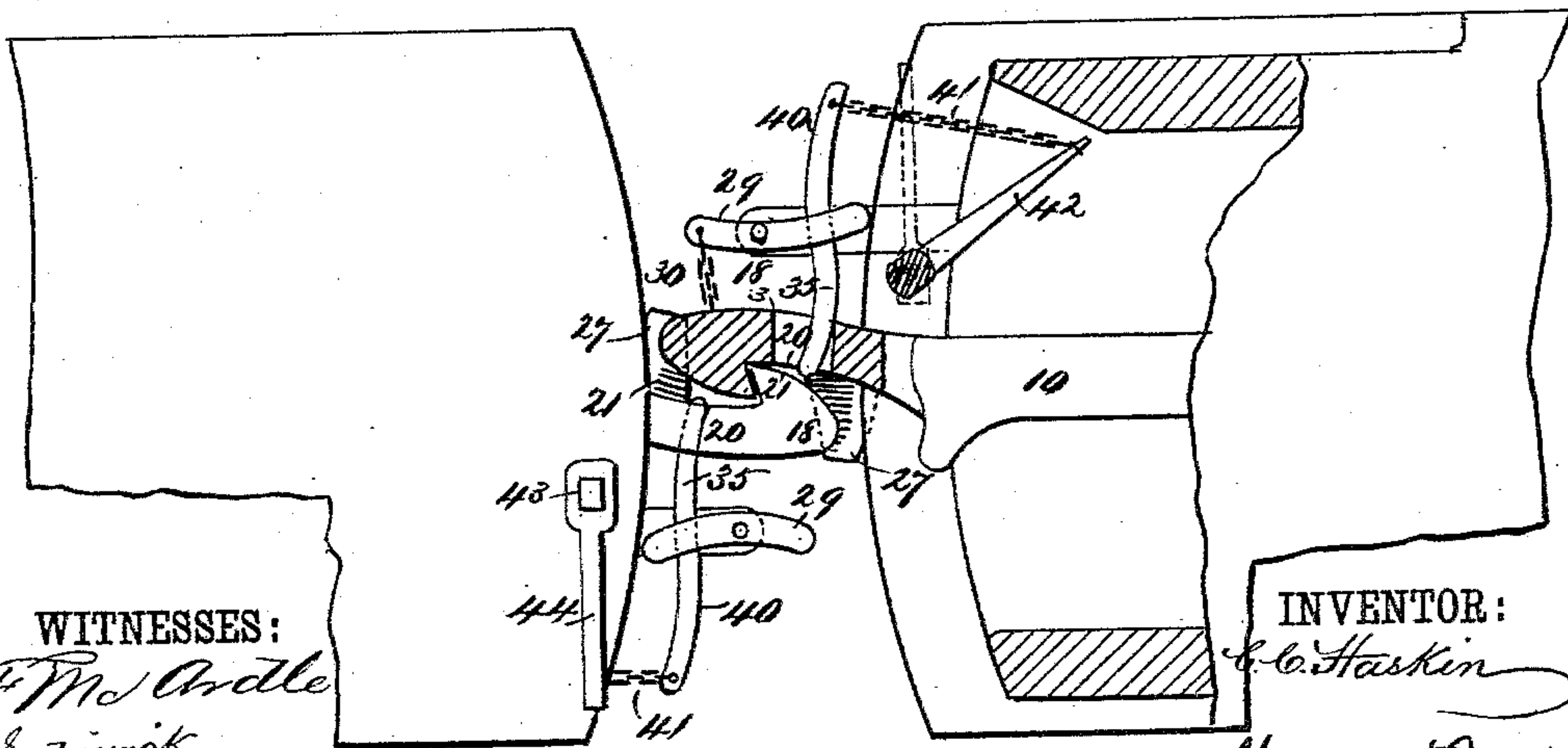
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

CHANCEY C. HASKIN, OF WALTHAM, IOWA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 359,785, dated March 22, 1887.

Application filed August 13, 1886. Serial No. 210,827. (No model.)

*To all whom it may concern:*

Be it known that I, CHANCEY C. HASKIN, of Waltham, in the county of Tama and State of Iowa, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My present invention relates to an improvement in that form of car-coupling that is illustrated, described, and claimed in Letters Patent No. 288,800, granted to me on the 20th day of November, 1883, the present invention consisting, essentially, of an improved form of draw-bar and coupling-hook, whereby cars of different elevations may be coupled together, and being so coupled will be free to turn the sharpest curves employed in the construction of railroads.

The invention also consists in an improved arrangement of the springs employed in connection with the coupling.

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

Figure 1 is a longitudinal sectional view of my improved coupling, representing the same as applied to a high-bodied and a low-bodied car. Fig. 2 is an inverted plan view of the coupling, parts being broken away to disclose the construction. Fig. 3 is an end view of the car, and Fig. 4 is a view in partial section representing a modified construction.

In constructing such a coupling as the one illustrated in the drawings above referred to, I provide a draw-bar, 10, that is pivotally connected to a draw-rod, 11, by a bolt, 12, the head of said bolt entering a recess, 2, formed at the inner or rear end of the draw-bar. The rod 11 passes through two cross-bars, 13, and a cross-timber, 15, its extending end being engaged by a nut, 14. The cross-pieces 13 are arranged in connection with spiral springs 16, that are disposed as best shown in Figs. 1 and 2, a similar spring, 17, being arranged between the forward cross-piece, 13, and the end of the draw-bar.

Each of the draw-bars is provided with a coupling-hook, 18, which is made integral with, but projects upward or downward from, the draw-bar, the direction in which the hook extends depending upon the height of the car in connection with which the draw-bar is ar-

ranged—that is, if the car is a high-bodied car, as shown on the right in Fig. 1, the hook projects downward, a shoulder, 19, being formed, while if the car is a low-bodied car, as shown on the left in Fig. 1, the hook projects upward, the shoulder 19 in this case being below instead of above the hook. The inner face of each of the hooks 18 is concave, as shown at 20, and the end of each hook is convex, as shown at 21, so that when the hooks are in engagement there will be plenty of room to permit of a proper adjustment of the coupling when the cars are passing around a curve.

In order that the draw-bars may be held so as to extend in a line substantially parallel with the center of the car, I provide limit pins or bolts 22, which are arranged in the position best shown in Fig. 2, the draw-bar being held against said limit-pins by a spring, 23, one end of which is secured in one of the sills 24, while the other end bears against a plate, 25, said plate being provided with a stem, 26, which enters the space between the coils constituting the spring. In order that the plate 25 may be properly guided and held against lateral displacement, I prefer to form the plate with lugs 5, which enter grooves or ways 6, that are formed in strips 7, said strips being secured to the under side of the flooring of the car, and to the upper face of the frame-work which incloses the coupling mechanism.

Upon the under side of each of the coupling-hooks there is arranged a flaring plate, 27, against which the coupling-hook of an approaching car will strike, should such hook be slightly depressed below the required plane, and as the cars come together the two hooks will be moved so that their faces will occupy parallel planes.

In order that the cars may be uncoupled, I provide a lever, 29, that is connected to the coupling-hooks by means of a chain, 30, the lever 29 being supported by a bracket, 31. The inner end of the lever 29 extends through an eye, 32, formed at the lower end of a lever, 33, the upper end of said lever being arranged so as to be within reach of the trainmen when standing upon the platform of the car, the arrangement being such that when the lever is thrown in the direction of the arrow shown in Fig. 3 the coupling-hook will be drawn in the direction of the arrow shown in connection



therewith in said figure, and the two cars will be uncoupled; but in order that the throw of the lever 33 may be lessened I provide the lever 29 with a horn, 35, which passes through a recess, 3, formed in the coupling-hook, and, when the lever 33 is thrown in the direction indicated in Fig. 3, bears against the convex surface 21 of the coupling-hook of the adjacent car, and as the horn is moved forward a slight movement is imparted to the coupling-hook of the said adjacent car, so that it is only necessary to move the coupling-hook connected with the lever that is being operated about one-half the distance which it would have to be moved were it not for the provision made for moving the hook of the next car.

It will be noticed that as the draw-bar is forced inward against the tension of the springs 16 and 17 the spring 23 will not be depressed, in so far as its position is concerned, as the draw-bar will slide against the face of the plate 25.

In Fig. 4 I illustrate a construction wherein the cars may be uncoupled by a lever which moves in a horizontal instead of in a vertical plane, the only change necessary being to provide the horn 35 with an extension, 40, and to connect this extension, by means of a chain, 41, with a lever-arm, 42, said lever arm being

rigidly secured to the lower end of a shaft, 43, the operating-lever 44 being fixed to the upper end of said shaft.

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

1. The combination, with the draw-bar and its hook, of a draw-rod pivotally connected thereto, cross-pieces 13, springs 16 and 17, limit-pins 22, a spring, 23, and a plate, 25, said plate being arranged in connection with the spring 23 in the draw-bar, substantially as described.

2. The combination, with a draw-bar and a coupling-hook at the outer end thereof, in a lower plane than said bar, of the opposite draw-bar having a coupling-hook at its outer end, but in a higher plane, whereby the two hooks will be brought into approximately the same plane when applied to cars of different elevations, substantially as set forth.

3. The combination, with a draw-bar and its hook, of downwardly-flaring plates 27, substantially as described.

CHANCEY C. HASKIN.

Witnesses:

E. A. CURTIS,

R. E. MORRISON.