

(No Model.)

G. A. HASLUP.
CAR COUPLING.

No. 496,516.

Patented May 2, 1893.

Fig. 1.

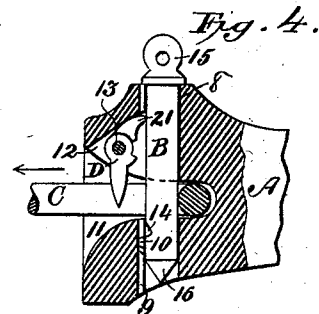
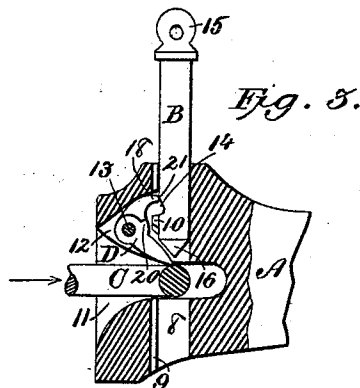
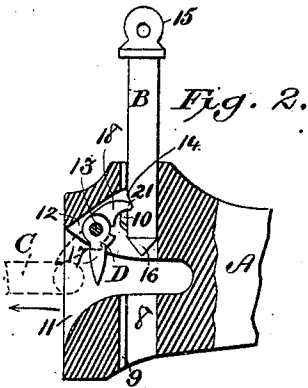
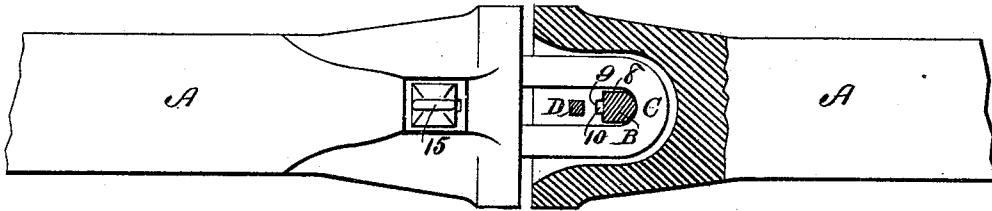


Fig. 5.

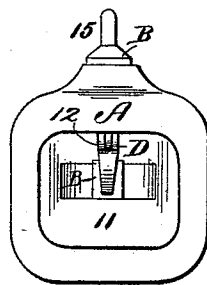


Fig. 6.

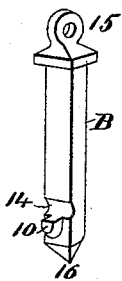
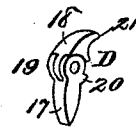


Fig. 7.



Witnesses
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 496,516, dated May 2, 1893.

Application filed August 11, 1892. Serial No. 442,749. (No model.)

To all whom it may concern:

Be it known that I, GILBERT A. HASLUP, a citizen of the United States, and a resident of Laurel, in the State of Maryland, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

This invention relates to automatic couplings for railway cars in general, but more especially to those which, by reason of inexpensiveness, and adaptation to be readily substituted for or used in connection with the pin and link couplings now in use, are peculiarly adapted for freight cars.

The improved coupling is a pin and link coupling of that type in which a "gravity" pin-support is employed.

The objects of the present invention are to render the pin-support, not only wholly springless, but so constructed and located as to be free from excessive strain and wear, and at the same time as sensitive as may be required, and adapted (first) to prevent the withdrawal of the pin when it is hurriedly or forcibly lifted, as from the top of a box car, (second) to support the pin in elevated position, whenever the pin is fully lifted, even if the link be within the draw-head, (third) to offer no obstruction whatever to the withdrawal of the uncoupled link, and (fourth) to drop the pin at the proper moment, in coaction with an entering link, to couple the cars.

The invention consists in certain novel combinations of parts hereinafter set forth and claimed.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of these drawings is a plan view of a pair of draw-heads provided with my improved coupling, partly in section in the plane of the link. Figs. 2 3 and 4 are vertical sections of one of the same illustrating the uncoupling and coupling operations. Fig. 5 is an end view of one draw-head; and Figs. 6 and 7 are perspective views of the pin and pin-support detached.

Like reference letters and numbers indicate corresponding parts in the several figures.

The improved coupling, in common with others of the same type or class, is composed of a pair of horizontal draw-heads A, a vertically sliding coupling pin B in each draw-

head, a short coupling link C, and gravitating pin-supports D to coact with the pins and link. Each draw-head A, for the purposes of this invention, is constructed with a vertical hole 8 for the reception of a pin B, a vertical groove 9 in the front of said hole to accommodate a projection 10 on the face of said pin, a mouth 11 fitted to receive the link C and to allow it the required play, a narrow vertical recess 12 in the top of said mouth, occupied by the middle and upper portion of a pin-support D, and a transverse drill-hole, crossing said recess 12, and occupied by a pivot-pin 13, by which said pin-support is pivoted and held in place. Each pin B is preferably constructed with a body or its main portion having a rounded back and a flat face, as in Fig. 1, the latter being provided with said projection 10, and also with a transverse notch 14 immediately above said projection; and it has the customary head 15 at its upper end by which to lift it to its elevated position, Fig. 2, and which supports it vertically in its lowered position, Fig. 4, and a pointed lower end 16 so that it shall not rest on the link. The link C is preferably a short link of round iron, such as is commonly preferred. Each pin-support D is composed of two parts 17 18 loosely jointed to each other by a "rule" joint 19, Fig. 7, the pintle of which is said pin 13. The lower or swinging part 17 tapers downwardly by preference, so as to ride freely over the end of the link C as in dotted lines at the left in Fig. 2, and as in Fig. 3. This part 17 is provided on its back with a projection 20, which, when said part 17 of the pin-support is thrust inward by an entering link, as in Fig. 3, comes in contact with a matching portion of the upper part 18 of the pin-support, so that the latter shall partake of the movement at the proper moment to drop the pin B as soon as half the thickness of the link, or it may be the whole thickness, is behind the vertical plane of the point 16 of the pin. When the pin B is pulled up by means of its head 15, its projection 10 comes in contact with the extremity 21 of the upper part 18 of the pin-support D, as in Fig. 2, and the withdrawal of the pin is thus prevented. Compare Fig. 3, where said part 18 is shown in its highest position. When the pin, so lifted to full height, is released, said upper part 18 of the pin-support

D gravitates therewith, its extremity 21 drops into said notch 14 in the face of the pin, and said part 18 as a whole acts as a rigid strut, between the back of said notch and the pivot 5 13, to support the pin in elevated position, as in Fig. 2. If the link C be in the draw-head A when the pin B is so lifted and supported, the withdrawal of the link, as illustrated by dotted lines in Fig. 2 as aforesaid, meets with 10 no obstacle, and does not drop the pin. When a link C enters a draw-head A beneath a supported pin B, as in Fig. 3, the lower part 17 of the pin-support D swings freely before the link until the end of the latter reaches the predetermined point. The rule-joint projection 15 20 then comes in contact with the matching surface of the upper part 18 of the support, and the latter is moved as in the figure until its extremity 21 clears the notch 14, 20 which frees the pin B, and permits it to drop through the link. As soon as the link is coupled, as in Fig. 4, the pin-support D and all its appurtenances are wholly relieved from strain, except as the pivot-pin 13 carries the 25 weight of the two parts of the pin-support, the lower part swinging freely on said pin. The pin B, if otherwise prevented from accidental withdrawal, may be round in cross-section, its notch 14 being in this case preferably circumferential; and other like modifications will suggest themselves to those 30 skilled in the art.

Having thus described the said improvement, I claim as my invention and desire to 35 patent under this specification—

1. The combination, in an automatic car-coupling, of a suitably recessed draw-head, a suitable coupling-link, a gravity pin-support arranged wholly within the draw-head in front 40 of the coupling pin, and composed of two parts, the lower of which coacts with the end of the link and actuates the upper part by a projection thereon, and which are loosely jointed to each other and pivoted within the draw-head by

one and the same pivot pin, and a vertically- 45 sliding coupling-pin having a notch near its lower end to coact with the extremity of the upper part of said pin-support, substantially as hereinbefore specified.

2. The combination, in an automatic car- 50 coupling, of a suitable coupling-link, a gravity pin-support composed of two parts, the lower of which coacts with the end of the link and actuates the upper part by a projection thereon, and which are loosely jointed to each 55 other and pivoted within the draw-head by one and the same pivot-pin, and a vertically-sliding coupling-pin having a projection on its face near its lower end and a notch immediately above said projection, both of which 60 engage with the extremity of the upper part of said pin-support, substantially as hereinbefore specified.

3. The combination of a draw-head A having its hole 8 provided in front with a groove 65 9, and having a central vertical recess 12 crossed by pivot-pin 13 at the top of its mouth, a coupling-pin B having a rounded back and a flat face, the latter provided with a projection 10 within said groove 9 and with a notch 70 14 immediately above said projection, a coupling-link C, and a two-part pin-support D, the parts 17 18 of said pin-support being loosely jointed to each other and pivoted to the draw-head by said pivot-pin 13, and provided respectively with a projection 20 which transmits 75 motion through the lower part from the entering link to the upper part, and an extremity 21 of said upper part which coacts with said projection 10 to prevent the accidental withdrawal of the pin, and with said notch 14 to support the pin in elevated position, substantially as shown and described. 80

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Witnesses:

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