

(No Model.)

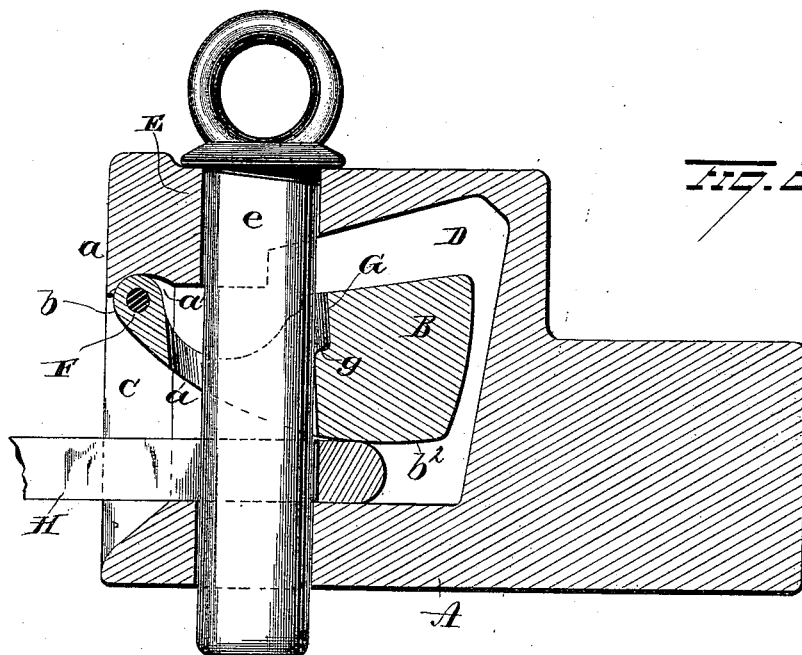
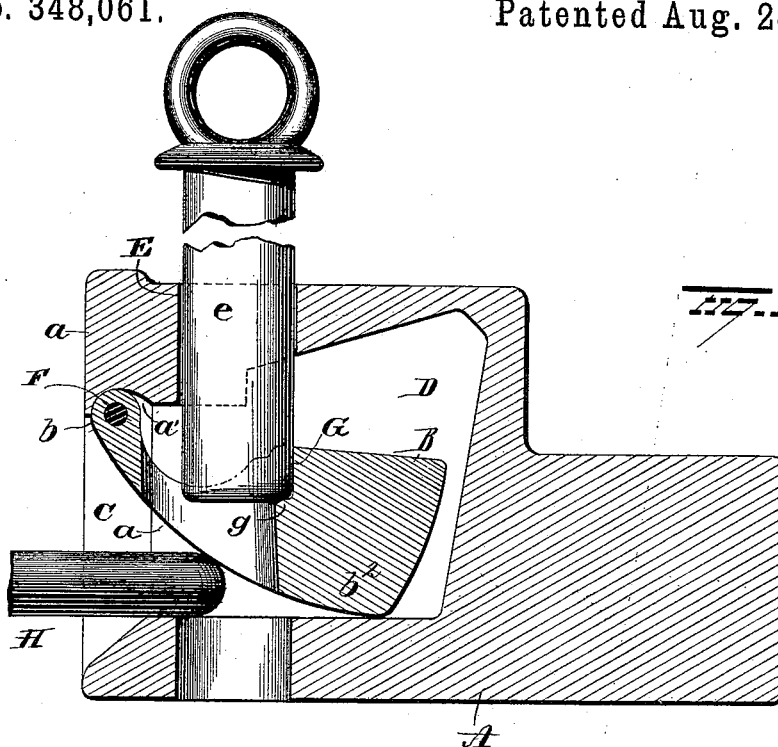
2 Sheets—Sheet 1.

F. J. SCHUPP.

CAR COUPLING.

No. 348,061.

Patented Aug. 24, 1886.



WITNESSES
G. J. Nottingham
G. J. Downing

INVENTOR
F. J. Schupp
R. J. Smith & Son
ATTORNEY

(No Model.)

2 Sheets—Sheet 2.

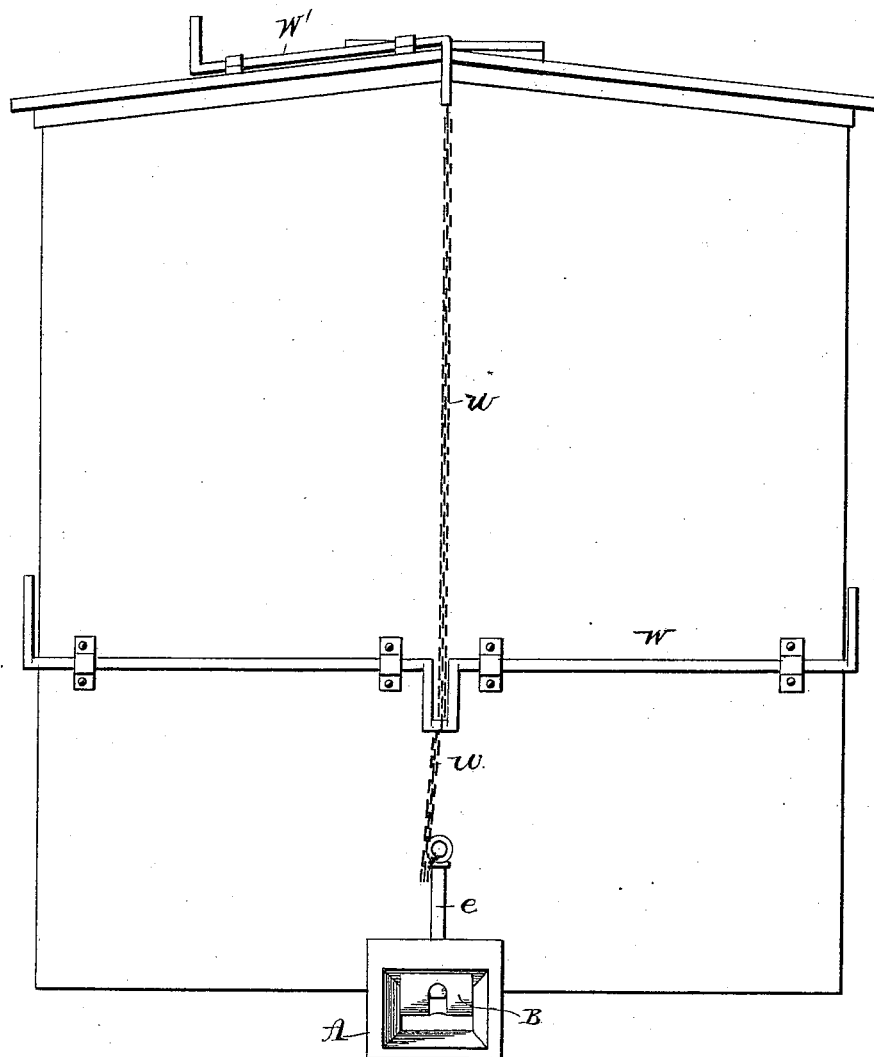
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Fig. 3.



WITNESSES

E. Nottingham
G. F. Downing

INVENTOR

F. J. Schupp.
B. Bennett & Son.
ATTORNEYS

UNITED STATES PATENT OFFICE.

FRED. J. SCHUPP, OF MARSHALL, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 348,061, dated August 24, 1886.

Application filed March 24, 1886. Serial No. 196,372. (No model.)

To all whom it may concern:

Be it known that I, FRED. J. SCHUPP, of Marshall, in the county of Saline and State of Missouri, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in car-couplings.

Hitherto in that class of couplings in which a gravity-latch is pivotally secured within the draw-head and adapted to hold the coupling-pin in an elevated adjustment and to be operated by the free end of the approaching link it has been customary to provide the outer end of the draw-head with an internal recess, to admit of the free vertically-rocking motion of the latch, and as the latter has been constructed nearly or quite straight, or in some instances bulging on its upper side near its front end, or has been hinged near the extreme upper side of the head, the recess has necessarily been quite large near the end of the draw-head, at the very point where the draw-head should be solid, to render it capable of withstanding the punishment to which it is subjected. Furthermore, it is desirable that the latch or drop should be sufficiently heavy to hold the link in a horizontal position, and have an extended bearing thereon, to prevent the link from wobbling about in the approaching draw-head.

The object of my present invention is to provide an automatic coupling which will admit of the use of the ordinary link, will hold the link steady and guide it surely into the draw-head, and in which the metal composing the draw-head and latch or drop is disposed in an economical and durable form.

A further object is to provide a rest for the suspended pin which will hold it securely in its position until the latch is acted upon by the approaching link.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a longitudinal section of the draw-head with pin in suspended adjustment, and Fig. 2 is a view of the same with the link locked therein;

Fig. 3, a front view of the same attached to a car.

A represents the draw-head, provided with a bell-shaped mouth, as usual, but the metal above the mouth at the end is quite thick, as shown at *a*, in both a vertical and longitudinal direction. The lower front edge of the top portion, *a*, is provided with a partial socket or rounded bearing, *a'*, for receiving the rounded front edge, *b*, of the drop or latch B. The lower face of the drop B is sled-runner shaped, the front portion gradually slanting upwardly to the edge *b*, and the rear portion, *b'*, extending nearly or quite horizontal and parallel with the bottom of the interior chamber, C, within the draw-head when the link is in position. (See Fig. 2.) The extended horizontal portion *b''* rests on the sides and end of the link. The front portion of the drop is constructed quite thin, to admit of the thickness of metal shown at *a*, while its rear portion is made as thick and heavy as the depth of the draw-head will admit of, the top of the draw-head, over the thickened portion of the drop, being recessed internally, as shown at D, to receive the drop as it is raised by the approaching link. It will thus be seen that the metal which would be comparatively useless in the draw-head at a considerable distance back from the face is transferred to the drop, increasing its weight at the end, where weight is required to make it act promptly and effectively.

The hole E, through which the coupling-pin *e* passes, extends through a thick wall of metal on both top and bottom of the draw-head, and is thus afforded an extended bearing against the metal on the side where the draft for the most part presses it.

The drop is hinged within the recess C by a bolt or pintle, F, which extends transversely through the draw-head near its front edge.

The perforation G in the drop, through which the coupling-pin extends, is somewhat elongated, as shown, and is provided on its rear side with a step or rest, *g*, some distance below the upper surface of the drop, on which the end of the pin catches when the drop is depressed. When in this position, the bearing of the pin against the front of the perforation E and the rear of the perforation G above the step *g* prevents the pin from becoming accidentally displaced by sudden jars.

The operation of the coupling is plainly evident. The approaching link H, for example, as it comes in contact with the inclined face of the drop, gradually raises it, and as it
5 extends beneath the horizontal portion, has swung the drop sufficiently to relieve the pin from engagement with the step *g*, and the said pin drops into locked position. The pin is elevated by means of a double crank, W, which
10 leads to the right and left of the car, and by means of a crank, W', at the top of the car, when desired, as in freight-cars.

The pin is connected with the two cranks by a chain or other flexible connection, *w*,
15 and when the cranks are in their depressed positions a sufficient amount of slack chain is obtained to allow the pin to drop when the approaching car is being coupled.

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

In a car-coupling, the combination, with a draw-head having an internal chamber, of the drop hinged at the front upper edge of the chamber and provided with a thickened rear
25 end, the oblong opening, the latter being sufficiently large to permit the drop to move with the link after the latter has been secured in place, and the step or rest *g*, the latter being located below the upper surface of the drop,
30 all of the above parts constructed and combined substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRED. J. SCHUPP.

Witnesses:

E. T. GEAR,
W. H. H. ISAACS.