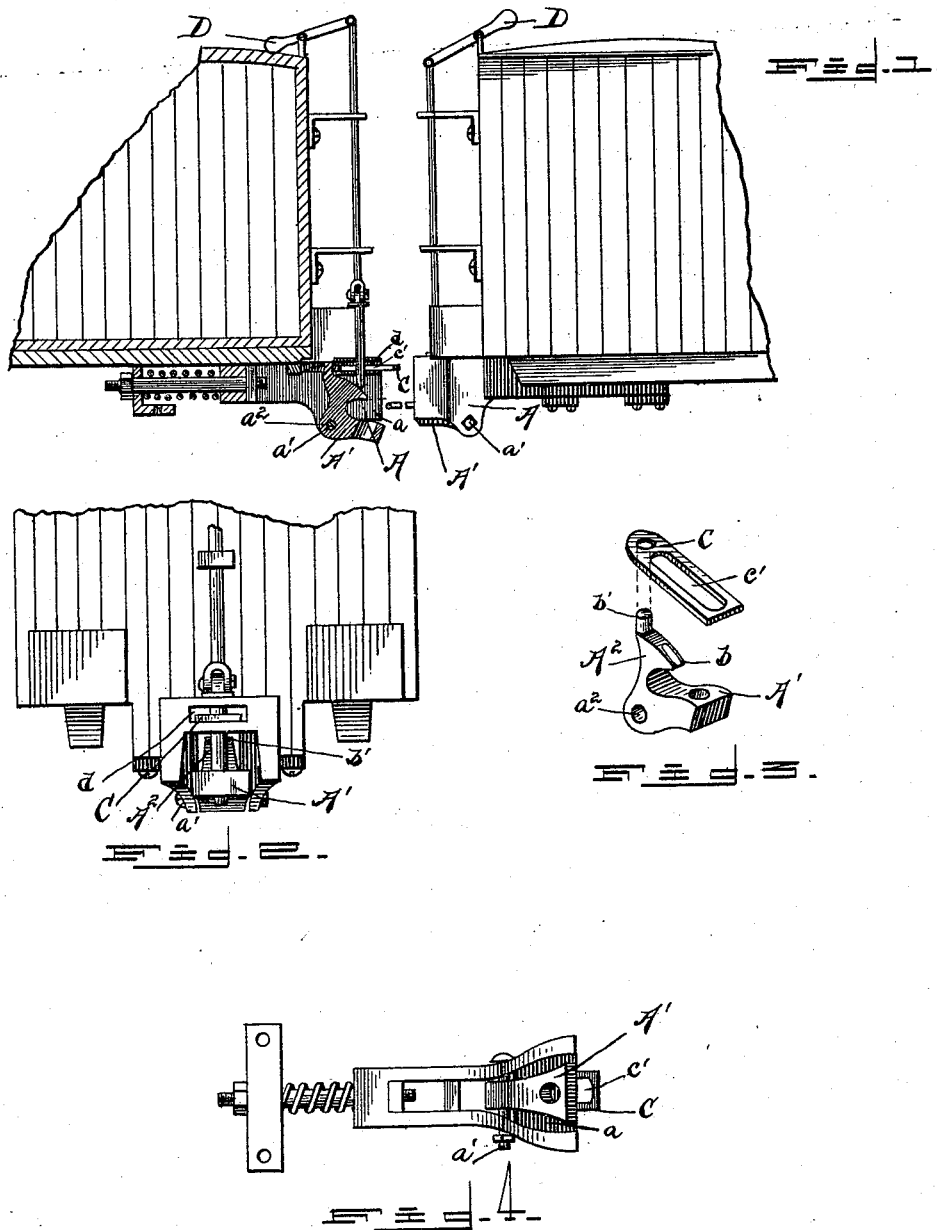


(No Model.)

F. STENGER.
CAR COUPLING.

No. 491,929.

Patented Feb. 14, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANCIS STENGER, OF PHILADELPHIA, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 491,929, dated February 14, 1893.

Application filed October 12, 1892. Serial No. 448,691. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS STENGER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to an improved car coupling, and it has for its object to provide for the automatic retention in an elevated position of the coupling pin and the automatic tripping of the same, and to effect automatically the coupling operation and partially automatically the uncoupling operation, and to these ends my invention consists in the novel construction and combination of the parts, all substantially as hereinafter more fully disclosed and pointed out in the claims.

In the accompanying drawings:—Figure 1 is a sectional elevation of a car embodying my invention, with the coupling pin elevated. Fig. 2 is a front view thereof. Fig. 3 is an enlarged detailed view of the articulated or pivoted bottom or section of the drawhead, with its resetting or elevating bar or slide. Fig. 4 is a plan view of the same.

In the embodiment of my invention, I employ a drawhead A, resembling in its general outline, as far as concerns its top and sides, the ordinary drawhead, the manner of applying it to the car also being the same as in the latter, having the usual buffer construction and spring, as shown. The bottom of this drawhead, however, consists of a separate piece or section A' arranged in an opening *a* in said drawhead and pivoted or articulated at its inner or rear end, among other ways, by a pivot-bolt or pin *a'* passed through a tubular passage *a''* in said end of said bottom or section and coincident apertures *a²* *a²* in the sides of said drawhead at the inner extremity of the opening *a*. The inner or rear end of the bottom, or section, A', is provided with an upturned or upwardly extending portion or

arm A², the forward edge of which is formed into a hook or curvature *b* facing outward, away from the car, and having its forward edge or point extended well forward to provide a support for the coupling pin when elevated, this hook tilting forward and below the latter when raised. The upper edge of the hook or curvature *b* is inclined or beveled forward and downward to permit the pin to readily fall from its elevated position, as the hook is moved backward by the elevation of the forward end of the pivoted bottom or section, as will more fully appear further on.

The hook-ended or rear portion of the pivoted bottom or section A' has projecting upward therefrom a stud or projection *b'* by means of which connection is made with a slide or bar C. The slide or bar C is arranged in a separate chamber *d* in the drawhead A from the link-chamber thereof and above it, and normally extends just to the forward edge or end of the drawhead, and has an elongated slot *c'* therein through which passes the coupling pin to prevent the interference of the pin and slide, one with the other, as the slide is moved back and forth. It will therefore be seen that, as the coupling pin is elevated, through suitable means, in the present instance, by a lever D, articulated thereto and fulcrumed upon a bracket, secured to the end of the car, the pivoted bottom or section will automatically drop at its forward end and consequently throw its rear, hooked end upward and forward into alignment with and permit the coupling pin to rest thereon thus automatically supporting said coupling pin preparatory to coupling the cars. At the same time the bar or slide C will be carried forward and projected beyond the forward edge or end of the drawhead, to provide for its engagement by the drawhead of an approaching car in effecting the coupling operation. As this takes place, the slide or bar C will be pushed inward, moving the inner hooked end of the pivoted bottom or section A' rearward, and the forward end of the latter upward. From this it will be seen that the coupling link, simultaneously entering the drawhead with the inward movement of the slide or bar C, which latter will not by reason of its elongated slot directly trip the coupling pin, will have en-

tered the drawhead in advance of the tripping of the coupling pin preparatory to receiving the latter. And after the tripping of the coupling pin, the retention of the pivoted section or bottom of the drawhead is not dependent upon the coupling link engaging the inner hooked end of the said bottom or section, but the holding in proper position of said pivoted section or bottom is effected by the coupling pin resting against said inner hooked end of said bottom or section. Further, it will be seen that by reason of the dropping of the forward end of the pivoted section or bottom of the drawhead the same is adapted to accommodate itself to the reception of a link of a car whose drawhead may not align with the drawhead of the car it is desired to couple therewith; and that the retention of the coupling pin elevated and the coupling of the cars are all effected automatically.

I claim—

1. In a car coupling, the drawhead having a pivoted bottom or section adapted to automatically support the coupling pin, and a slide or bar connected to, and adapted to actuate said bottom or section, as the coupling operation is effected, substantially as set forth.

2. In a car coupling, the drawhead having a pivoted bottom section, having means for automatically supporting the coupling pin

elevated, in combination with a slide or bar connected to the inner end of said pivoted bottom-section and adapted to be engaged by an opposite car, substantially as set forth.

3. In a car coupling, the combination with a drawhead having a pivoted bottom or section provided at its inner end with a hooked portion, of a slide or bar connected to said inner end of the pivoted bottom-section and arranged in a chamber of the drawhead separate from the link-chamber thereof and adapted to be engaged by an approaching car drawhead, substantially as set forth.

4. In a car coupling, the combination with a drawhead having a pivoted bottom or section provided with an inner hook-ended portion having an upper beveled surface, of a slide or bar whose inner end is connected to a stud on said inner hooked end of said pivoted bottom or section, said slide or bar being arranged in a chamber of the drawhead and normally extending to about the forward edge of the latter, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS STENGER.

Witnesses:

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CORNELIUS O'BRIEN.