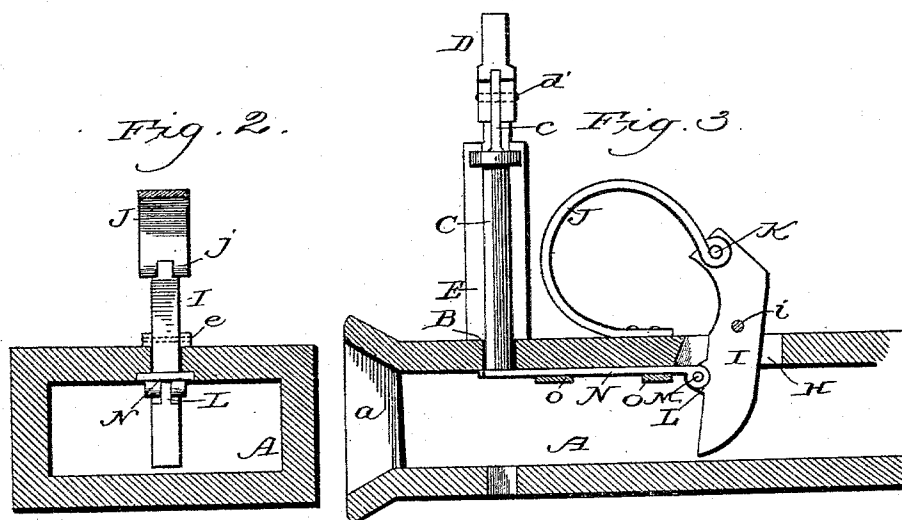
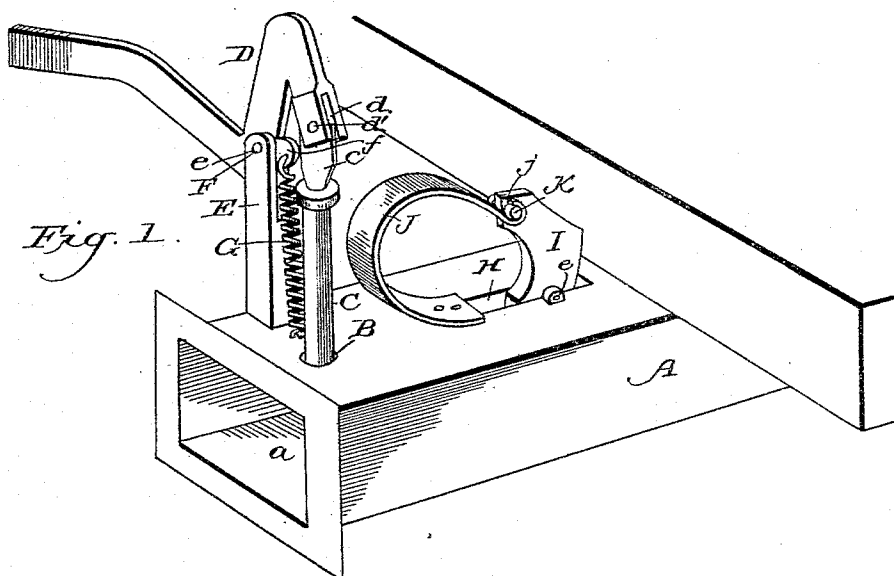


(No Model.)

A. SCHNEIDER.
CAR COUPLING.

No. 533,612.

Patented Feb. 5, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

ADOLPH SCHNEIDER, OF MENARDVILLE, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 533,612, dated February 5, 1895.

Application filed April 18, 1894. Serial No. 507,994. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH SCHNEIDER, a citizen of the United States, and a resident of Menardville, in the county of Menard and State of Texas, have invented certain new and useful Improvements in Car-Couplers; 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.

This invention relates to certain new and useful improvements in car-couplings of that class known as safety or automatic, and it has for its objects among others to provide a simple and efficient coupler which shall be reliable and efficient in its operation, composed of few parts and those so assembled and arranged as not to be liable to get out of order or to become inoperative from any cause.

A further object is to provide simple mechanism whereby when the cars are uncoupled the coupling is set for coupling with another car.

Still a further object is to improve in the details of construction and render the whole of such a nature that it can be readily applied to the drawhead of any car now in use.

Others objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claim.

The invention in this instance resides in the peculiar combinations, and the construction, arrangement and adaptation of parts, all as more fully hereinafter described, shown in the drawings and then particularly pointed out in the claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of my improved coupler with the parts set ready for coupling with another car. Fig. 2 is a substantially central vertical longitudinal section through the same. Fig. 3 is a longitudinal vertical section showing the parts in the position they assume when the cars are coupled.

Like letters of reference are employed to

designate corresponding parts throughout the several views.

In the drawings A designates the drawhead of a car and *a* the mouth thereof, the drawhead being of any well known form. It is provided with the vertical opening B for the passage of the coupling pin C. The coupling pin C is pivotally connected with one end of a lever D in any suitable manner, as for instance by having a thin flat extension *c* at its upper end which is pivotally held in a slot or kerf *d* of the said lever by a cross pin *d'* upon which it is free to vibrate as is necessary in the operation of the coupling. This lever is of peculiar shape being in side elevation somewhat in the form of a Z, the arm of which that is substantially parallel with the end connected with the coupling pin being extended to form a handle by which it may be operated. This lever is pivoted as at *e* at one of its angles, the lower one, in the bifurcated upper end of a standard or upright E rising from the top of the drawhead as shown by means of a pin or pivot F, and near its pivot this lever is formed with a lug *f* which is perforated and in this perforation is held one end of a spiral spring G the other end of which is secured to an eye bolt *h'* on the top of the drawhead.

To the rear of the pin-opening in the top of the drawhead the upper face of the said drawhead is formed with a central longitudinal slot H in which works a substantially vertical arm I, which is pivotally mounted as upon a horizontal pin or pivot *i* and to the upper end of this arm is connected one end of the spring bar J, the other end of which is secured to the upper face of the drawhead in front of the slot therein as shown. This spring bar is bent to form almost a circle and the end which is attached to the upper end of the pivoted arm I is provided with a notch *j* to receive the front edge of said arm while the portions upon opposite sides of the notch are coiled around a pin or pins K projecting laterally from the upper end of said arm as shown.

The lower end of the vertical arm I extends within the mouth of the drawhead to nearly the bottom thereof and upon its front edge just below the under side of the top of the

drawhead it is formed with a lug or ear L from which project the lateral pins M around which are bent the slit ends of a plate or bar N which is mounted to slide in guides O upon the under face of the top of the drawhead as shown. The front end of this plate or bar may or may not be provided with a substantially semi-circular recess or notch to fit the curvature of the coupling pin.

10 With the parts constructed and arranged substantially as above set forth the operation is as follows:—To set the coupler ready for use, the lever is operated to raise the coupling pin and as soon as the lower end thereof passes the under face of the top of the drawhead the spring bar J acts to force the upper end of the arm I rearward and consequently the lower end forward which slides the plate N forward and under the pin-opening in the top of the drawhead and holds the pin in its elevated position. As the car approaches another or is approached by another the link which is held fast in the drawhead of the one moves into the mouth of the drawhead of the car with the coupler set as above described and as the entering end of the link engages the lower end of the arm or latch I within the mouth of the drawhead it forces the same rearward and its upper end forward against the tendency of the spring J and this movement withdraws the plate from under the end of the coupling pin which falls and enters the link and thus the cars are coupled. When it is desired to uncouple the cars all that it is necessary to do is to depress the end of the

handle of the lever when the pin will be raised clear of the link and when it is raised so that its lower end is clear of the under face of the top of the drawhead the spring bar J acts to project the plate beneath the end of the pin and hold it in its elevated position ready to again couple with an approaching car.

By having the arm I located in an opening formed in the top side of the draw bar it is at all times under observation and is readily accessible for repairs and for purposes of cleaning. Moreover, should the pivot pin *i* break, the said arm I will not drop down and be lost and will engage with the forward edge of the opening H, which will limit its movement under the influence of the spring J. Again, in the event of the pin *i* breaking, the arm I will be supported by the engagement of its lower end with the bottom side of the said draw bar.

What I claim as new is—

In a car coupling, the combination of a draw head provided with a vertical standard, a coupling pin, an approximately Z-shaped lever pivoted to the said standard, and having a forwardly extending lug and constructed to operate the said coupling pin, and a spring interposed between the draw head and the aforesaid lug, substantially as set forth.

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

ADOLPH SCHNEIDER.

Witnesses:

HERMANN DIETZ,
CHAS. C. SCHUCHARD.