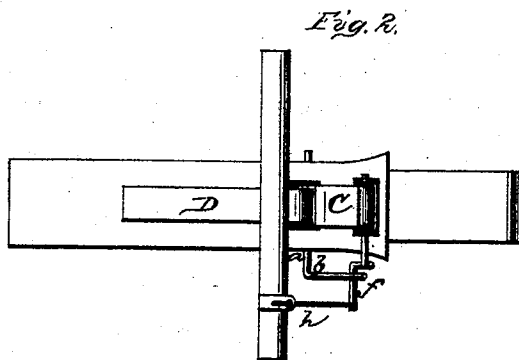
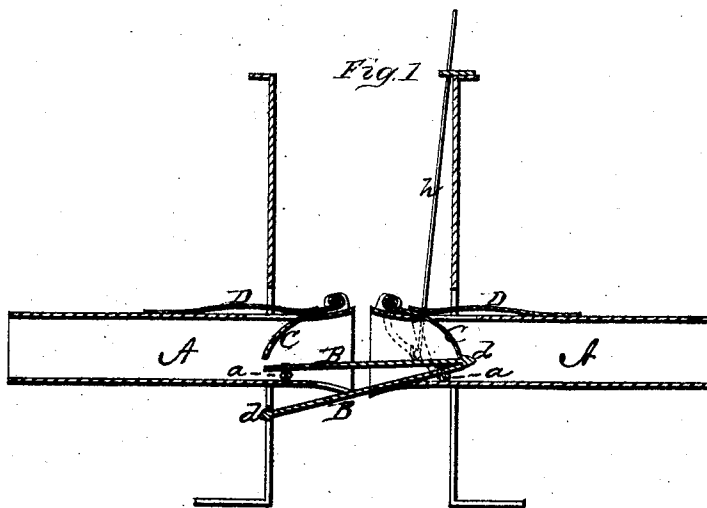


S. H. ZINK.
Car-Couplings.

No. 135,255.

Patented Jan. 28, 1873.



Witness:
John A. Ellis
John H. Ellis

Inventor.
Samuel H. Zink
Per.
C. H. Watson & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

SAMUEL H. ZINK, OF KNOBNOSTER, MISSOURI.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 135,255, dated January 28, 1873.

To all whom it may concern:

Be it known that I, SAMUEL H. ZINK, of Knobnoster, in the county of Johnson and State of Missouri, have invented certain new and useful Improvements in Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a car-coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section, and Fig. 2 a plan view of my car-coupling.

A A represent the two draw-heads of two adjoining cars. Through each draw-head, at the bottom, passes a cross-shaft, *a*, one end of which forms or is provided with a crank, *b*, on the outside of the draw-head, which crank is bent at right angle, as shown in Fig. 2. To the shaft *a* is firmly secured, by any suitable means, the coupling-tongue B, said tongue extending only a short distance in rear of the shaft, but in front of the same and beyond the end of the draw-head a suitable distance to enter the opposite draw-head and be coupled in the same. The outer end of the tongue B is provided with a beveled head, *d*, forming a shoulder both on the upper and lower side. At the front end of the head A, on the upper side, are ears, between which is pivoted a pawl, C, and the loose end thereof projects downward through a slot in the draw-head, it being pressed into the same by spring D secured on top of the draw-head, and bearing upon the upper side of the pawl. The pivot of the pawl C extends out on the same side of the

draw-head where the crank *b* is situated, and here this pivot forms a crank, *f*, bent substantially as shown in Fig. 2. To the end of the crank *f* is attached a rod, wire, or chain, *h*, which runs up along the end of the car for uncoupling.

When two cars are brought together for coupling one of the tongues B will come on top of the other and slide up into the opposite draw-head. As it reaches the pawl C it forces the same up until the head *d* has passed it, when the pawl catches on the shoulder on the upper side of the tongue. At the same time the inner end of the lower tongue catches on the shoulder of the under side of the tongue, and thus the cars are firmly and securely coupled together.

For uncoupling, the rod *h* is pulled, turning the crank *f* and raising the pawl C. The crank *f* at the same time strikes the crank *b*, turning the lower tongue, and thus releasing the head of the upper tongue and allowing the cars to separate, each draw-head being provided with a rod, *h*, and its connections.

The coupling being alike on both ends of the cars, it is impossible for them to come together without coupling; it makes no difference which car is the highest; the one that is the highest is the one that will couple; they may both be of the same height and couple all the same.

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

The combination of the draw-head A, tongue B with head *d*, shaft *a* with crank *b*, pawl C with crank *f*, and the spring D, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of November, 1872.

SAMUEL H. ZINK.

Witnesses:

GORDON HARDEY,
W. T. GOUGH.