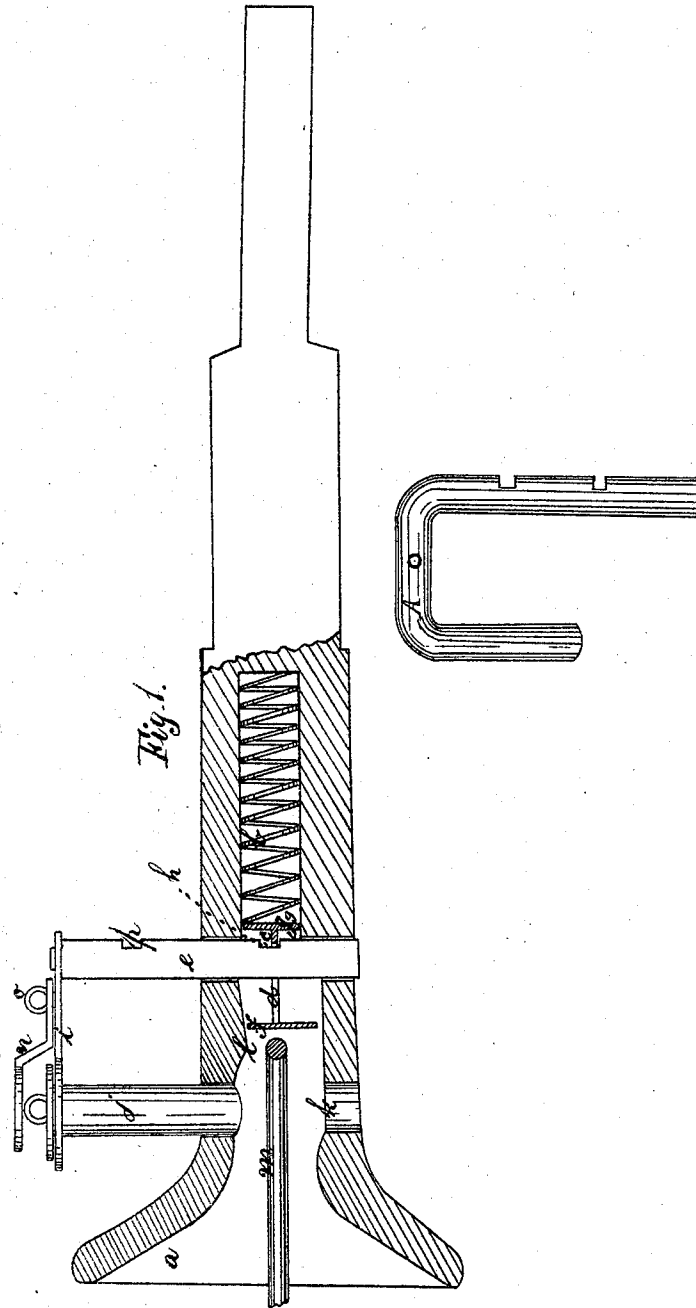


E. W. BARKER.
Car-Couplings.

No. 140,805.

Patented July 15, 1873.



Witnesses:
Frank H. Jordan.
John F. Johnson

Inventor:
Ezekiel W. Barker

UNITED STATES PATENT OFFICE.

EZEKIEL W. BARKER, OF PORTLAND, MAINE, ASSIGNOR OF ONE-HALF HIS
RIGHT TO CYRUS S. CLARK, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 140,805, dated July 15, 1873; application filed
January 30, 1873.

To all whom it may concern:

Be it known that I, EZEKIEL W. BARKER, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Car-Couplings; 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 drawings and to the letters of reference marked thereon which form a part of this specification.

The figure shows a side sectional elevation of my invention.

The object of my invention is to produce an automatic link and pin car-coupling, one that will obviate the necessity of passing between the cars to perform the operation, and at the same time render the operation certain, safe, and speedy.

To do this I construct a draw-head, *a*, of the ordinary shape, having its mouth or entrance considerably flaring to allow of the entrance of the link at whatever angle it may be held by the approaching car. In the back part of the draw-head is a recess, in which plays a spiral spring, *b*. Directly in front of the spring *b* is placed a plate, *c*, having a slot, *d*, through which may fall the vertical bar *e*. The plate *c* is provided with two heads, *f g*, one of which rests against the spring *c*, the other in front of the vertical bar *e*. In the bar *e* is cut a notch, *h*, into which the plate *c* will, when the bar *e* is raised to a proper height, spring, and thus hold said bar and prevent it from dropping. At the upper end of the bar *e* is arranged an arm, *i*, through which arm is placed the pin *j*, as shown in the drawing, the arm *i* extending far enough forward to allow the pin to rest over the aperture *k*. At a short distance back of the aperture *k* is a projection, *l*, for the purpose of holding the link *m* in a position to enter an approaching draw-head—that is to say, the inner end of the link rests against this projection, which

prevents the opposite end from falling lower than the mouth or entrance of another draw-head. Pivoted on the arm *i*, a short distance in front of the bar *e*, is a supplemental arm, *n*, said arm being bent or curved in such manner as to allow its upper end to be swung over the pin *j*, and will thus hold the pin locked, or, in other words, will prevent the pin from rising without also lifting the bar *e* and arms *i n*.

The operation of my invention is as follows: The link *m*, entering the mouth or entrance of the draw-head, strikes the plate *c* on its head *f* and forces said plate backward out of the notch *h* in the bar *e*, when said bar *e*, pin *j*, arms *i n* will fall, and the coupling is performed.

To uncouple the cars it is merely necessary to grasp the ring *o* and raise the bar, and when raised to the proper height the plate *c* will spring into the notch *h*, and the cars are uncoupled.

If required the uncoupling can be performed by a suitable arrangement of levers. An additional notch, *p*, may be made in the arm *e* for the purpose of holding the pin locked when shackled, or the whole arrangement may be dispensed with, and a device substituted like that shown at *A*.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, in a draw-head having a flaring mouth or entrance, as shown, and projection *l*, of the spring *b*, plate *c* provided with heads *f g* and slot *d*, the vertical bar *e* having the notch *h* and carrying on its upper end the arms *i n*, or the device shown at *A*, as herein shown and set forth, and operating as described.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of January, 1873.

EZEKIEL W. BARKER.

Witnesses:

FRANK H. JORDAN,
JOHN F. TOTMAN.