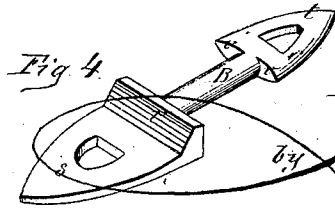
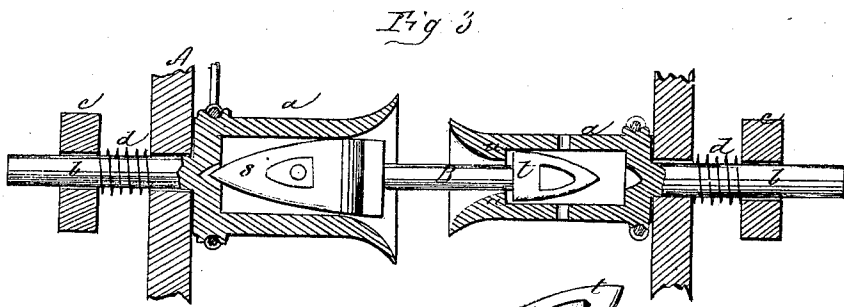
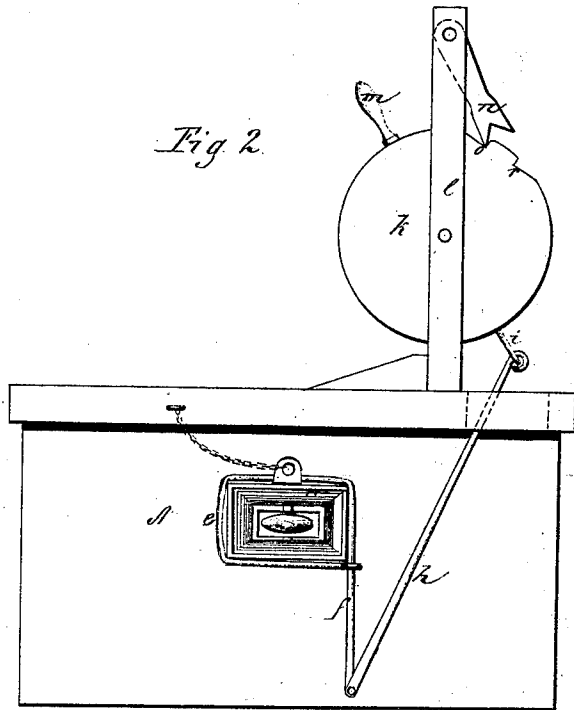
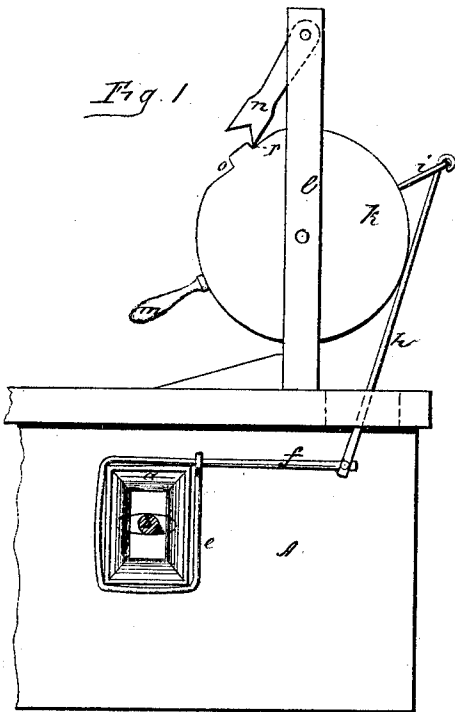


L. A. EVANS  
Car Coupling.

No. 108,124.

Patented Oct. 11, 1870.



Witnesses  
H. A. [Signature]  
Thos. D. [Signature]

Lewis A. Evans, Inventor.

[Signature]  
His Attorneys.

# United States Patent Office.

LEWIS A. EVANS, OF CHESTER, PENNSYLVANIA, ASSIGNOR TO HIMSELF  
AND W. C. BOATWRIGHT, OF SAME PLACE.

Letters Patent No. 108,124, dated October 11, 1870.

## IMPROVEMENT IN CAR-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEWIS A. EVANS, of Chester, in the county of Delaware and State of Pennsylvania, have invented a new and improved Car-Coupling; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation of one of the boxes A, with a front elevation of the revolving draw-head, and a side elevation of the mechanism by which the draw-head is revolved;

Figure 2 is a similar elevation of the same parts, with the draw-head and its operating mechanism in a different position;

Figure 3 is a longitudinal section through the draw-head; and

Figure 4 is a perspective view of the link.

The object of this invention is improvement in car-couplings; and

It consists in the combination of a rotating device with a swiveled draw-head, whereby the latter may be turned so as to bring the width or flat sides of the head of the coupling-link, which enters the opposite draw-head, into parallelism with the two longer of the four sides of the oblong recess therein, and thus uncouple the cars.

It also consists in the combination with said draw-head of a link of peculiar construction, as will be hereinafter described.

In the drawing—

A are hollow boxes, designed to be attached to the ends of railway-cars.

a are draw-heads, which are attached to the outer ends of horizontal stems b that pass loosely, so as to revolve, through holes in the sides of the boxes A, and are prolonged through bars c, placed lengthwise within the boxes A.

d are spiral springs, which bear against the bars c, and serve to press the stems b and draw-heads a outward.

Each draw-head is inclosed in a U-shaped metallic band, e.

Through the ends of the band e passes a bar, f.

To the end of the bar f is jointed the lower extremity of a rod, h, whose upper extremity is jointed to the outer end of a pin, i.

The connecting-rod h passes through a slot in the top of the box A.

The pin i projects from the periphery of a disk, k, that is mounted between standards l, which spring from the top of the box A.

From the opposite point of the disk k to the pin i projects a handle, m, by which the disk is rotated.

n is a two-pronged pawl suspended between the standards l, and capable of being turned over, so as to be on either side of the standards, and take in either of the notches o r.

The link, fig. 4, has flattened spear-heads s t, the former larger than the latter.

When two cars are coupled it is unnecessary to rotate more than one of the draw-heads in order to complete the operation.

The head s is placed in that one of the draw-heads that is not to be rotated.

The smaller head t projects forth from that draw-head, with its flat side horizontal.

In order that the draw-head of the other car may receive the head t, it is necessary that the said draw-head should be turned downward, or so that its longer side is horizontal.

To bring it into this position the handle m is drawn upward, as shown in fig. 2, until the pawl n enters the notch o.

After the head t has entered its draw-head, the disk k is rotated backward into the position shown in fig. 1, and, by this movement, the draw-head a is turned, so that its longer side is vertical, or, in other words, so that its shoulders u u are brought in rear of the shoulders v v of the head t, and the latter thus prevented from withdrawing.

While one of the connected draw-heads is turned vertical and the other horizontal, if either car is overturned the two draw-heads are restored to a parallelism, and the link ceases to act as a connection. Consequently, the throwing of one car from the track need not and is not likely to draw off the next following one. This arrangement is, therefore, a safety coupling.

The draw-heads are provided with holes, into which to insert the ordinary pins when necessary, and the heads s t are likewise provided with holes for the same purpose.

The head s of the link B is made too large to be inclosed within the draw-head, and is constructed with a lip, u, which abuts against the inclined upper side of the mouth of the draw-head, and prevents, to a great extent, the head from working. The head s holds the head t stationary when the draw-head, in which the latter is inclosed, is turning.

Having thus described my invention,

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

1. The link B, provided with the flat head s and rib v, and the arrow-shaped head t, in combination with the swiveled draw-heads a, as shown and described.

2. The combination of the draw-head a with the disk k, by means of the connecting-rod h and bar f, substantially as set forth.

LEWIS A. EVANS.

Witnesses:

GEO. W. HOWARD,  
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