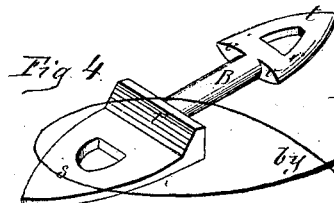
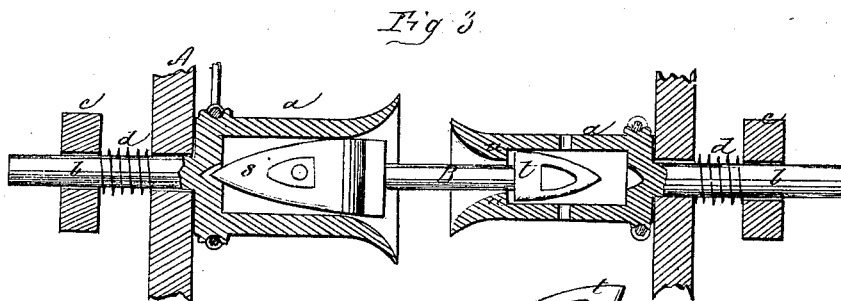
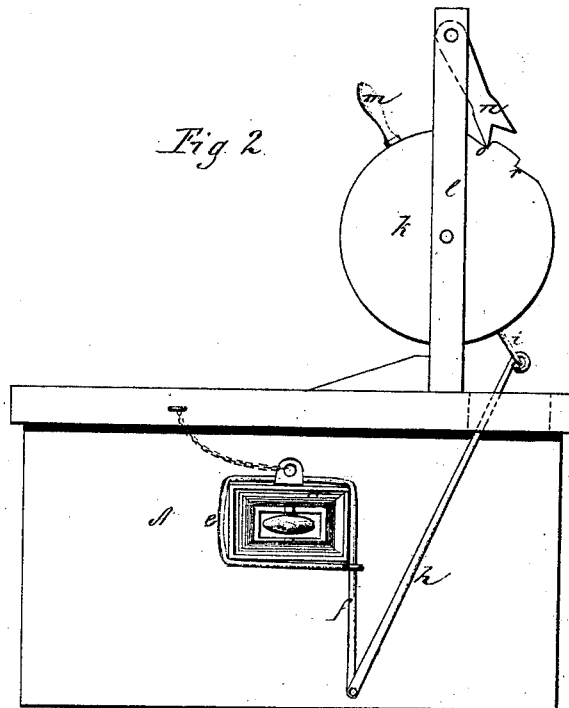
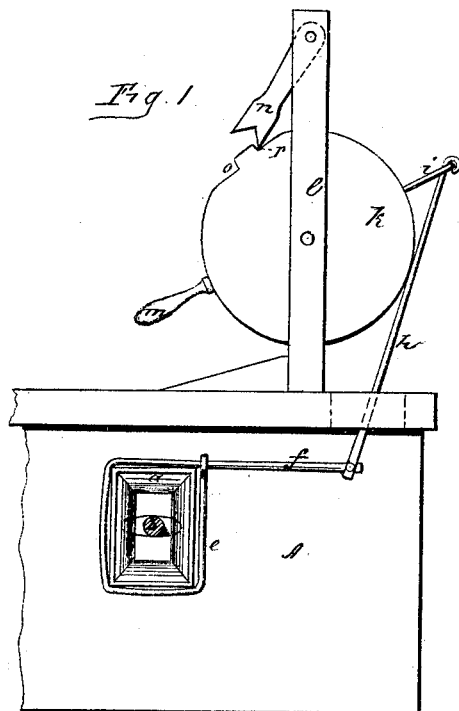


L. A. EVANS
Car Coupling.

No. 108,124.

Patented Oct. 11, 1870.



Witnesses
H. J. Keedy
Thos. D. D. Curran

Lewis A. Evans, Inventor.

Wm. H. C.
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,
LEWIS H. EVANS.