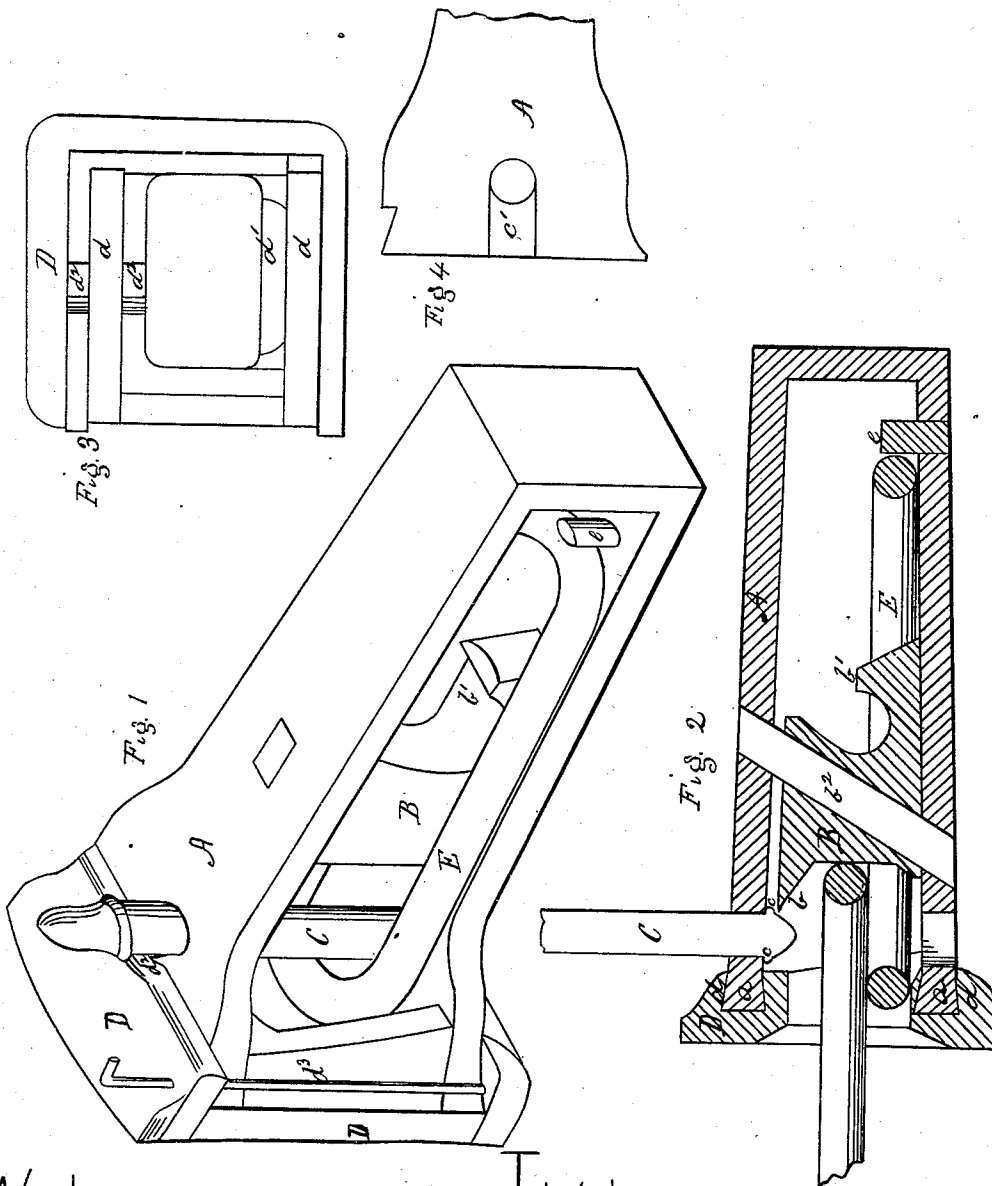


L. VOTE.
Car-Coupling.

No. 159,128.

Patented Jan. 26, 1875.



WITNESSES

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UNITED STATES PATENT OFFICE.

LEWIS VOTE, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **159,128**, dated January 26, 1875; application filed January 2, 1875.

To all whom it may concern:

Be it known that I, LEWIS VOTE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Draw-Bars or Couplings; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of my specification, in which—

Figure 1 is a perspective view of a coupler embodying my invention. Fig. 2 is a sectional view. Fig. 3 is a rear view of the face-plate; and Fig. 4 is a top view of the draw-bar, the face-plate being removed.

Like letters refer to like parts whenever they occur.

My invention relates to the construction of draw-bars or couplings; and it consists, first, in combining with the draw-head a sliding trigger moving upon an inclined key, and a coupling-pin having a collar under which the projecting portion of the sliding trigger takes to support the pin; secondly, in combining with the draw-head a coupling-pin having a collar of greater diameter than the hole in the draw-head through which it works, the pin being secured by a key-piece and sliding face-plate.

I will now proceed to describe my invention with reference to the drawing, in which—

A represents the draw-head of wrought-iron or other suitable material bent in the usual manner to form the upper and lower plates, and thickened at the points *a a*, either by staving up or otherwise, so as to form dovetailed ends, which fit into corresponding recesses in the sliding face-plate. B indicates a sliding trigger having a projection, *b*, which, in certain positions of the trigger, takes under and supports the coupling-pin, and *b'* is a curved rear projection of the trigger, which forms at times a seat for the inner end of the extra link. This trigger is secured to the draw-head by an inclined key, *b²*, so that the weight of the trigger will cause it to slide forward at such times as it is not forced back by the thrust of the link. C indicates the coupling-pin, which works through a slot in the upper plate of the draw-head, and it is provided with a collar, *c*, of greater diameter than the slot, the slot being closed after the pin is in-

troduced by means of a sliding or key piece, *c'*, which closes a portion of the slot, reducing it to such a size that the pin C cannot escape or be withdrawn without first removing the key-piece. D is a face-plate, the front of which is of the usual form, but the back has a couple of dovetailed recesses *d d* to receive the dovetailed ends *a a* of the draw-head A. It may be recessed or hollowed out at *d'* to seat the forward bend of the extra link E, and at *d²* to permit the passage of the head of the pin C, in which case both the extra link and the head of the coupling-pin will assist in locking the face-plate, though for this purpose a special key is provided, as shown at *d³*, or passing through D and A at any convenient point. E is an extra link, generally carried in draw-heads. It surrounds the trigger, and is, therefore, secured so as not to become detached or lost, and when used as a coupling-link it will draw against the trigger B, the inner end resting in the curved seat *b'*. When not in use the position of the link is determined by a stop, *e*, on the under plate of the draw-head, and is out of the way. The several parts are put together by placing the extra link and trigger in position, and securing them by the inclined key *b²* passing through the trigger, after which the coupling-pin is passed into the slot in the upper plate of the draw-head, the key or wedge piece *c'* inserted, the face-plate slid into position in the dovetailed ends of the draw-head A, and the whole secured by a suitable pin or key.

The operation of the devices is as follows: The coupling-pin being raised the trigger will ride forward on the incline by its own weight, and the projection *b* will take under the coupling-pin, holding it up until such a time as the trigger is struck by the entering link, when the trigger will ride back up the incline, and the projection *b*, being withdrawn, releases the coupling-pin, which falls, making an automatic coupling.

Among the advantages of my improved coupling are: that old draw-heads may be readily changed to automatic couplings; no springs or parts liable to get out of order are employed; the link is retained; the parts are not liable to be detached or lost; and the whole construction is simple and effective.

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

1. In combination with the draw-head and the sliding trigger to move upon an inclined key, the coupling-pin provided with a collar, *c*, substantially as and for the purpose specified.

2. In combination with a draw-head having a coupling-pin, the collar of which is of greater

diameter than the hole in the draw-head through which it works, the key-piece, and sliding face-plate, substantially as and for the purpose specified.

In testimony whereof, I, the said LEWIS VOTE, have hereunto set my hand.

LEWIS VOTE.

Witnesses:

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