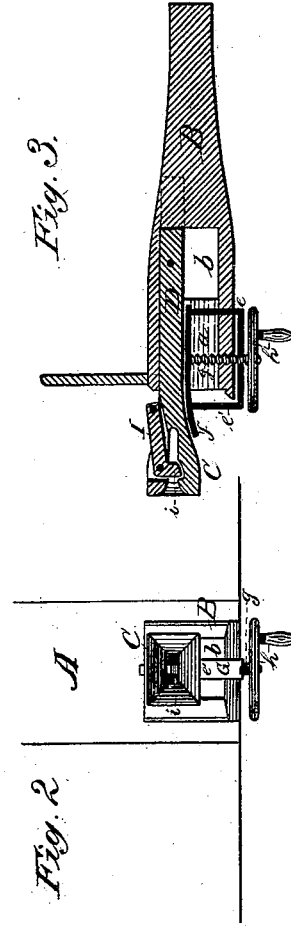
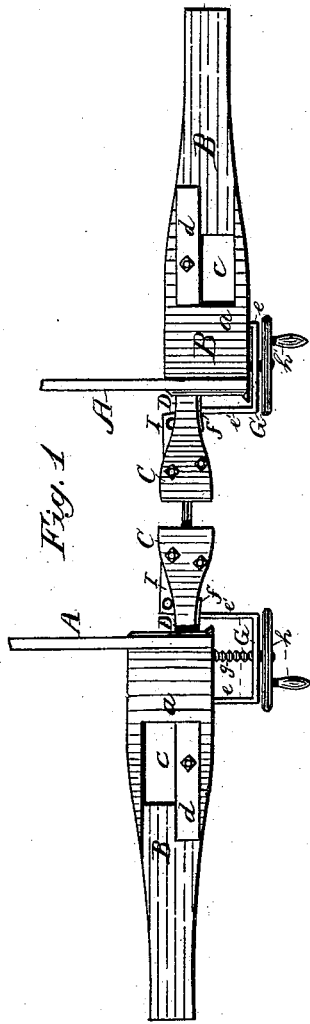


A. T. BIGALOW.
CAR-COUPLING.

No. 189,334.

Patented April 10, 1877.



Attest:
C. A. Snow,
Parker H. Smeeth, Jr.

Inventor:
Asher T. Bigalow,
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Attys.

UNITED STATES PATENT OFFICE

ASHER T. BIGALOW, OF UNION, IOWA.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. 189,334, dated April 10, 1877; application filed April 2, 1877.

To all whom it may concern:

Be it known that I, ASHER T. BIGALOW, of Union, in the county of Hardin and State of Iowa, 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, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation. Fig. 2 is a front elevation, and Fig. 3 is a longitudinal vertical section.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates especially to automatic car-couplings, to the successful operation of which it is essential that the draw-heads, when the cars come together, should be on the same level; and it consists, besides the improved construction of the coupling itself, as hereinafter described, in the means for raising and lowering the draw-head to any desired height, which I shall now proceed more fully to describe.

In the drawings, A is the end of a railway-car, and B is the buffer-stem under the body thereof. The buffer-stem B has a deep longitudinal recess, *b*, the sides or walls of which, *a a*, have slots *c c*, as shown. C is the draw-head, the stem of which, D, passes into recess *b* of the buffer-stem, where it fits nicely, but in such a manner as to slide freely up and down. The stem D of the draw-head has on the sides projections or flanges, passing through slots *c c*, thus retaining the stem and draw-head in position, and provided with guide-bars *d d*, which insure steadiness of motion when the draw-head and stem are moved up and down, and keep the coupling steady while in operation. *f* is a metallic plate, placed in front of the recess *b* in the buffer-stem, under the stem of the draw-head. It is secured to the ends of the arms *e e'* of a bail, G, one of which arms, *e*, slides in a perforation in the bottom of the buffer-stem, while the other, *e'*, passes outside thereof. *g* is a screw, journaled in bail G, and passing through a screw-threaded perfora-

tion in the bottom of the buffer-stem, reaching metal plate *f*, against which it works. It has at its lower end a crank or crank-wheel, *h*, by which it may be easily operated.

The operation of this part of my invention will be readily understood from the foregoing description, and by reference to the drawings hereto annexed.

In order to raise or lower the draw-head and stem C D to any desired elevation, it is only necessary to turn the screw *g* by its crank *h*. If it is to be raised the plate *f*, pressed against it by the screw, will force it in an upward direction, while if it is to be lowered its own weight will cause it to follow the plate as it is moved down by the operation of the screw.

While it is obvious that my improved adjusting device may be used for almost every kind of car-coupling, it is specially adapted to the one shown in the drawing, which combines simplicity with durability and ease of operation.

The draw-head C has a longitudinal slot, in which is pivoted at its front end a bolt, I, the downward-projecting front end (or lip) of which, *i*, forms the coupling-pin. The link, which is of the ordinary construction, being first placed in position in one draw-head, will, when the cars come together, enter the draw-head of the next car, which has been previously adjusted to the proper height. The result is that the lip *i* is forced back (lifting the rear part of bolt I) sufficiently to allow the passage of the link into the draw-head, when the weight of bolt I causes it to fall back into its original position, thus locking the coupling. For uncoupling, the bolt I may be operated by cords or chains, as shown in the drawing, or by suitably-arranged levers.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the buffer-stem B, having recess *b* and slots *c c*, with the vertically-adjustable draw-head C, having stem D, provided with laterally-projecting brackets and guide-bars *d d*, substantially as and for the purpose herein shown and specified.

2. The combination of the longitudinally-

recessed buffer-stem B, vertically-adjustable draw-head C, having stem D, plate *f*, bail G, and adjusting-screw *g*, all arranged and operating substantially in the manner and for the purpose herein shown and specified.

3. The improved car-coupling device, herein described, consisting essentially of the vertically-adjustable draw-head C, having stem D and pivoted coupling-bolt I, longitudinally-recessed buffer-stem B, plate *f*, bail G, and ad-

justing-screw *g*, all combined and arranged to operate substantially in the manner and for the purpose shown and specified.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in presence of two witnesses.

ASHER T. BIGALOW.

Witnesses:

WM. BAGGER,

C. A. SNOW.