(No Model.)

J. W. KLINGLER.

CAR COUPLING.

No. 469,576. Patented Feb. 23, 1892.

Fig. I.

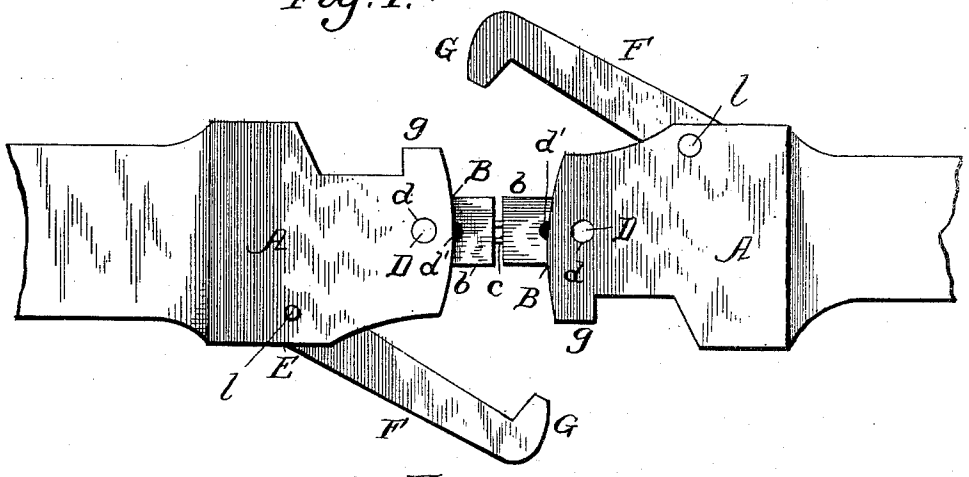


Fig. II.

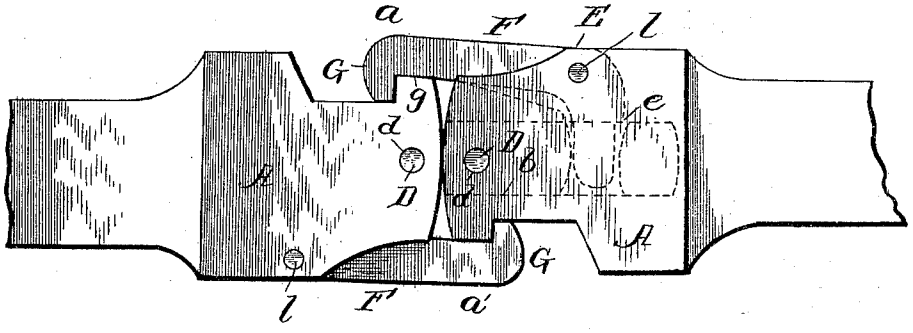
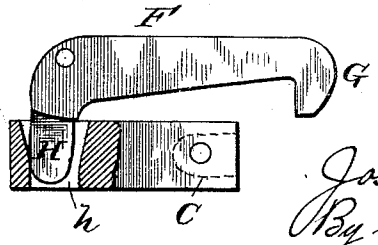


Fig. III.



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UNITED STATES PATENT OFFICE.

JOSEPH W. KLINGLER, OF BEAVER SPRINGS, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 469,576, dated February 23, 1892.

Application filed August 12, 1891. Serial No. 402,455. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. KLINGLER, a citizen of the United States, residing at Beaver Springs, in the county of Snyder and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to improvements in automatic car-couplings which may be used with or without the ordinary links; and the object of my invention is to provide a simple and automatic coupling which can be easily and readily adjusted in position for operation.

With these and other ends in view my invention consists of the draw-heads constructed in the usual manner and provided with the longitudinal central openings to receive a sliding buffer. Pivotally secured on opposite sides of the draw-heads are two jaws, which have short angular projections engaging with the buffers, and they are arranged and adapted to be automatically operated by the buffers when two cars are brought together to bring each jaw into engagement with a flange or shoulder on the opposite draw-head. The coupling-link is held in position in one of the buffers, and coupling-pins are arranged to pass through the draw-heads, buffers, and link to secure the cars together.

To enable others to more readily understand my invention, I have illustrated the same in the accompanying drawings, in which—

Figure I is a top plan view of my improved car-coupling. Fig. II is a longitudinal sectional view on the line *x x* of Fig. I, and Fig. III is a detail view of one jaw and buffer.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A A′ designate the draw-heads, which have the usual draw-bars *a a′*, respectively, and the front abutting faces of the draw-heads are beveled or curved to enable the cars to pass around a curve without interfering with the coupling mechanism. These draw-heads are provided with a longitudinal central opening B, and a buffer *b* is arranged within the same and adapted to slide back and forth, as will be hereinafter described. Each of these buffers has a slot or recess C in its front end, and the coupling-link *c* is inserted in the recess in one buffer and retained in proper position by a pin D, which passes through an opening *d* in the draw-head and another aligning opening *d′* in the buffer when the cars are coupled. On the opposite sides of the two opposing draw-heads is a longitudinal groove or recess E, which opens at its rear end into the central opening B, through a short passage *e*. In each of these grooves E at the rear end thereof is pivotally secured an angular jaw F on a vertical pivot-pin *l*, and the long arm of each of these jaws is provided with a hook G, which is adapted to be automatically engaged with a flange or shoulder *g* on the other draw-head.

The jaws F are each provided with a short arm H, which extends at an obtuse angle to the long arm thereof, and these short arms are arranged to enter a transverse opening *h* in the rear end of each buffer. By this arrangement it will be readily seen that when the buffer is projected beyond the front of the draw-head the hooked end of the jaws will be extended laterally their full limit, and when the cars are brought together and the buffers are pushed back into the central openings B the short arms of the jaws will also be carried back and the hooked ends of the jaws brought into engagement with the flange or shoulder on the opposite draw-head. For the better operation of these pivoted jaws F, I prefer to incline the inner face of each jaw, making them wider at the pivot than at the hooked end, and also incline the opposing side of the grooves or recesses E correspondingly.

The operation of my improved automatic coupler is very simple. The coupling-pins are elevated and the hooked end of the jaws drawn away from the draw-head, thus projecting the buffers, and the pins will then rest on the rear end of the buffers. The link is inserted in the slot in the forward end of one buffer and the coupling is in position for operation. The cars are brought together, and, as the draw-heads are substantially in the same plane, the link will enter the slot in the other buffer, and the buffers coming in contact will be forced back into the openings in the draw-heads, and at

the same time the hooked ends of each jaw will be brought into engagement with the shoulder on the opposite draw-head.

From the peculiar construction and arrangement of the parts it is obvious that the coupling-link may be dispensed with and the jaws simply used to connect the cars, and it will also be observed that cars having draw-heads of different heights can be readily coupled, and in case of a wreck or accident the side movement will leave each car independent of the others, as the jumping of one or more cars will cause the side jaws to become disengaged.

I am aware that changes in the form and proportion of parts and details of construction can be made without departing from the spirit or sacrificing the advantages of my invention, and I therefore reserve the right to make such changes as fall within the scope of my invention.

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

1. In an automatic car-coupling, the draw-heads having the longitudinal central openings, the buffers arranged to slide in said openings, and the hooked jaws adapted to be operated by the buffers to engage with shoulders on the draw-heads, substantially as described.

2. In an automatic car-coupling, the draw-heads having the central longitudinal openings, the buffers arranged to slide in said openings and adapted to receive the coupling-link, and the hooked jaws pivotally secured in recesses in the draw-heads and connected with the buffers, substantially as described.

3. In an automatic car-coupling, the draw-heads having the central longitudinal openings, the buffers arranged to slide within said openings, the grooves or recesses on opposite sides of the draw-heads communicating with the central openings therein, and the angular jaws pivotally secured in said grooves or recesses, substantially as described.

4. In an automatic car-coupling, the draw-heads having the longitudinal central openings therein, the buffers arranged to slide in said openings and having recesses in their abutting ends adapted to receive a coupling-link, and the coupling-pins fitted in pin-holes in the draw-heads, the buffers, and the link, substantially as and for the purpose set forth.

5. In an automatic car-coupling, the draw-heads having the central longitudinal openings, the buffers arranged to slide in said openings, and the angular jaws pivotally secured on opposite sides of the draw-heads having their short ends arranged to operate in slots in the buffers and their long arms provided with hooks to engage with shoulders on the draw-heads, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH W. KLINGLER.

Witnesses:
H. H. GRIMES,
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