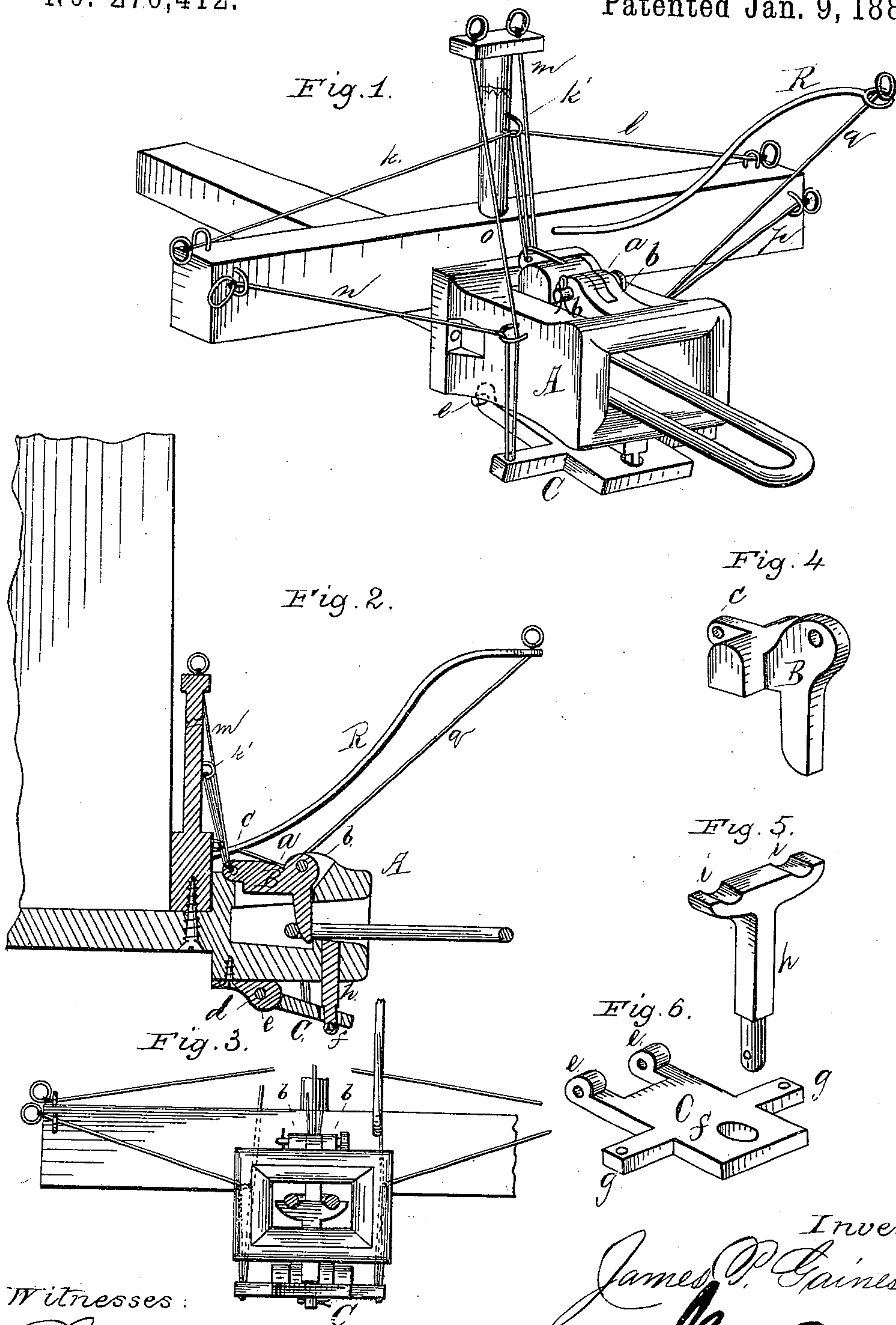


(No Model.)

J. P. GAINES.
CAR COUPLING.

No. 270,412.

Patented Jan. 9, 1883.



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JAMES P. GAINES, OF KUTTAWA, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 270,412, dated January 9, 1883.

Application filed October 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. GAINES, a citizen of the United States of America, residing at Kuttawa, in the county of Lyon and State of Kentucky, have invented certain new and useful Improvements in Car-Couplers; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in a device for coupling and uncoupling cars; and it consists in the novel construction, arrangement, and combination of the several parts, as will be hereinafter set forth, and pointed out in the claims.

The object of my invention is to provide a means whereby the cars will couple themselves automatically, also to provide a means by which the cars can be uncoupled either from the top or sides of the same, and by which the link can be held in a proper position for coupling either from the sides or the top of the car or from the adjoining car.

In the annexed drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a sectional view. Fig. 3 is a front view, showing the link-guide elevated; and Figs. 4, 5, and 6 are detailed views of the coupling-pin and link-guide.

A represents the coupling-head, which is attached in the usual manner to the draw-bar. The upper part of this coupling-head is provided with an opening, *a*, and the upper forward portion of the same is provided with raised walls *b b*. Within these raised walls, so as to lie within the opening *a*, is pivoted the coupling-pin B, having a rearwardly-extending portion, which is weighted and provided with an eye, *c*. The construction of this coupling-pin will be readily understood by reference to Fig. 4 of the accompanying drawings.

Secured to the under portion of the coupling-head, at the rear of the same, is a lug, *d*, to which the plate C, for operating the link-guides, is attached by a pivot, *e*, which passes through the eyes *e' e'* and lug *d*. The plate C is provided at its forward end with an opening,

f, and between its ends the side arms, *g g*, which are of sufficient length to extend beyond the sides of the coupling-head. To these arms are attached cords for operating the link-guide. The link-guide, as shown in Fig. 5, consists of an upwardly-projecting rod, *L*, the lower portion of which is provided with a shoulder, which rests on the plate C, adjacent to the opening *f*. The upper part of this rod is provided with a cross-bar with indentations *i i*, upon which the link rests. This cross-bar, when not in use, lies within a transverse recess in the lower forward part of the coupling-head, the end portion, *h*, of the same passing through the opening in the coupling-head, which opening is located over the opening *f* of the plate C.

The coupling-head A is made in two parts, which are suitably bolted together, the upper portion being cut away and recessed for the reception of a coupling-pin. The inner lower portion of this coupling-head is provided with a stop, against which the end of the coupling-pin abuts.

The means for uncoupling the cords and guide-link for the purpose of coupling consists of flexible connections, which are suitably guided through eyes to the top and side of the car.

To the end of the coupling-pin B, on its weighted portion, and to the opening *c*, are attached three flexible connecting means, cords or chains answering well. The cords *k* and *l*, which pass to the side of the car, extend upwardly and are guided through the eye *k'* to the sides of the car, where they are secured by a suitable staple and ring. The cord *m* is employed to raise the link B from the top of the car. The cords *n o p* are attached to the side arms of the plate C, and are guided to the top and side of the car, as shown.

Attached to the front of the car, on one side of the coupling-head, so as to project beyond the same, is a rod, *R*, so as to be within reach of a person when standing on the platform of the adjacent car when the coupling-heads are together. This rod *R* is provided at its end with an eye, through which passes a cord, which is attached to the plate B. By this means the link can be guided when it is desirable to couple the cars when they are in motion. By means of the attachment hereinbefore de-

scribed the coupling-pin can be raised to uncouple the cars either from the sides or top of the same. The link-guide can also be operated from the same position or from the platform of the adjoining car.

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

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

1. In combination with a car-coupling device provided with a link-guide, the forwardly-extending rod R, with means for operating the link-guide, substantially as described and shown.

2. The plate U, having side arms, *g g*, and opening *f*, in combination with a link-guide having downwardly-projecting arms *h*, and cross-bar, with link-rests *i i*, arranged within and attached to the car-coupler, substantially as shown and described.

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

JAMES P. GAINES.

Witnesses:

W. M. BOWMAN,
R. E. MARTIN.