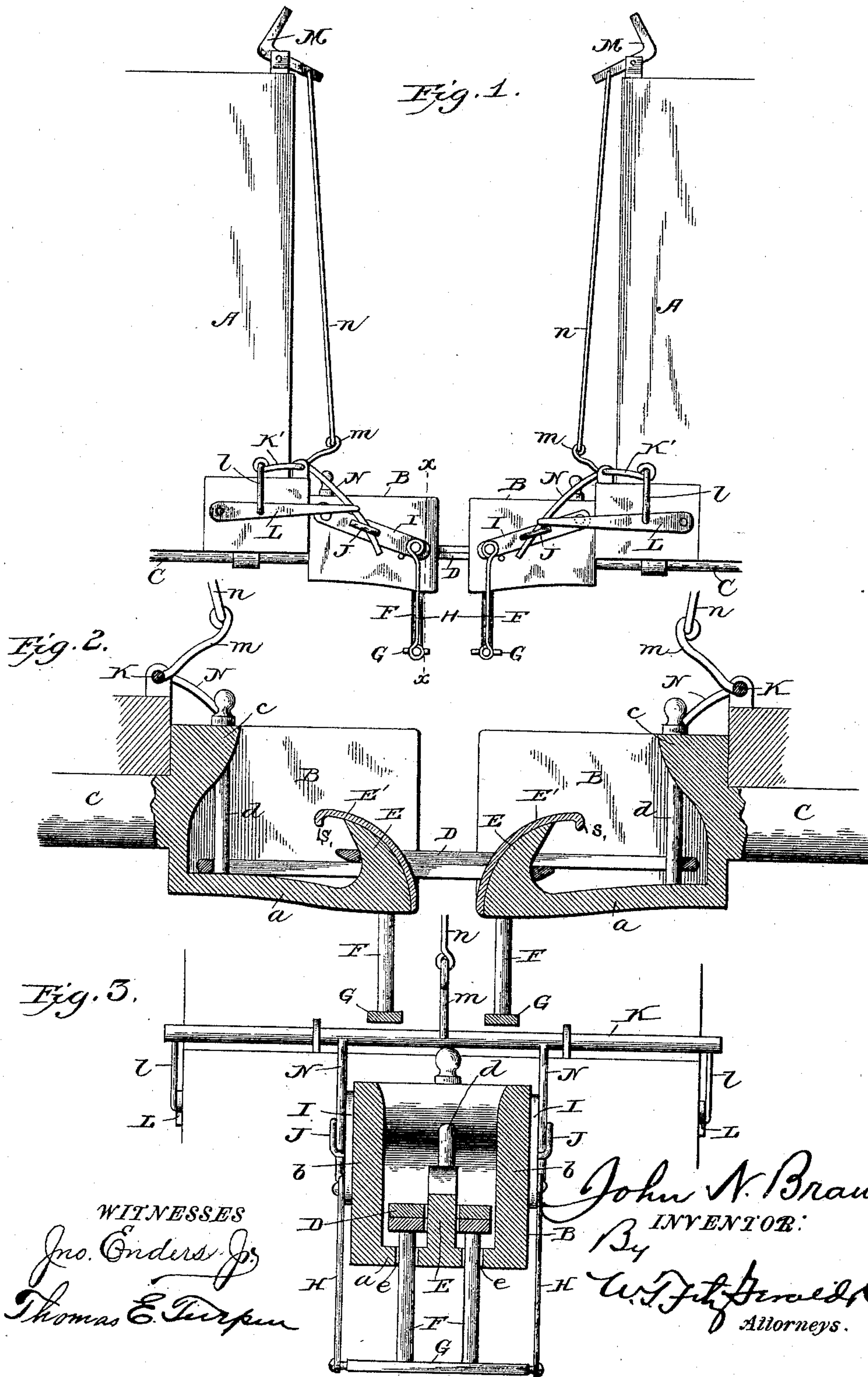


(No Model.)

J. N. BRAUN.
CAR COUPLING.

No. 482,614.

Patented Sept. 13, 1892.



UNITED STATES PATENT OFFICE.

JOHN N. BRAUN, OF ROSLYN, WASHINGTON.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 482,614, dated September 13, 1892.

Application filed April 20, 1892. Serial No. 429,890. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. BRAUN, a citizen of the United States, residing at Roslyn, in the county of Kittitass and State of Washington, 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.

My invention has relation to improvements in car-couplings; and its novelty and advantages, will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a side elevation of portions of two cars embodying my improvements, shown as coupled together. Fig. 2 is a vertical longitudinal central section of the same; and Fig. 3 is a vertical transverse section of one of the draw-heads, taken in the plane indicated by the line *xx* of Fig. 1.

In the said drawing similar letters designate corresponding parts throughout the several views, referring to which—

A indicates cars, which may be of the ordinary or any approved construction, and B indicates the draw-heads of my improved coupling, which are provided with draw-bars C, secured to the cars in any suitable manner. These draw-heads B, which are similar in construction, respectively comprise a bottom wall *a*, side walls *b*, and a narrow transverse top wall *c* at their inner ends, which top wall *c* and the bottom wall *a* are provided with aligned vertically-disposed apertures to receive the link-pins *d*, which are designed to connect the link D of each draw-head to the same.

Rising from the bottom wall *a* of each draw-head, at the forward end thereof, is a rearwardly-pitched hook E, which has its forward edge beveled to form a downward projection *s*, whereby when the beveled end of link D of the opposite draw-head rides up on the outer surface of the hook E and over the projection and drops to connect with the curve of the hook the said projection prevents the link from becoming disengaged from its bearing by the jostling of the cars.

The respective links D, which have their

inner ends square with respect to their sides, as illustrated, have the under side of their curved forward ends beveled, whereby they will more readily ride up and over the hooks E.

By the construction thus far described it will be readily seen that when the draw-heads are coupled the links D will rest one upon the other, and it will be further perceived that should the pin *d* of one draw-head become broken or casually disconnected from the link which it engages an uncoupling of the cars will be prevented, inasmuch as the inner end of said link will engage the hook E of its draw-head.

Formed in the bottom of the respective draw-heads B, adjacent to the outer ends thereof, are two vertically-disposed apertures *e*, in which play the vertically-movable pitmen F, which are connected at their lower ends by a cross-bar G, and are designed and adapted to be manipulated to engage and raise the links D above the hooks E when it is desired to effect an uncoupling of the cars. The cross-bars G of the respective draw-heads have their ends connected by links H with the forward ends of levers I, which are fulcrumed at their opposite ends upon the sides of the draw-head, and are provided at intermediate points in their length with the laterally and rearwardly extending hooks J, which are designed for a purpose presently to be described.

Journaled in suitable bearings upon the forward ends of the cars A are rock-shafts K, which are provided at their ends with angular branches K', which are connected at their ends by chains or links *l* with levers L, through the medium of which the shafts K may be readily rocked by a person at the side of the car. The shafts K are also provided at intermediate points in their lengths with forwardly and upwardly extending angular branches *m*, which are connected by chains or links *n* to the bell-crank levers M upon the tops of the cars, whereby it will be seen that the shafts K may be rocked by persons upon the top of the car.

Connected to or formed integral with the shafts K and extending forwardly therefrom are arms N, which take beneath the hooks J of the levers I and are designed to engage

said hooks and raise the links D when the shafts K are rocked in the direction indicated by the arrow. Thus it will be readily perceived that a person standing at the side or
 5 upon the top of the cars may raise both of the links D above the hooks E and thereby uncouple the cars, or when it is desired to couple the cars may raise the link of one draw-head so that it will take into a draw-
 10 head resting at a greater elevation.

By the provision of the hooks J upon the levers I for the engagement of the arms N of the rock-shafts K it will be readily perceived that should the draw-bars C become discon-
 15 nected in any manner from their cars and pull out, such disconnection will not damage or otherwise affect the shafts K and the parts connected thereto.

Fixedly connected to or formed integral
 20 with the forward edges of the hooks E, as better shown in Fig. 2, are curvilinear plates E', which extend rearwardly of the hooks and serve to prevent a disengagement of the links from the said hooks when a draw-head is
 25 pulled out.

In practice a coupling will be automatically affected by the link of one draw-head entering the other draw-head and engaging the hook E thereof, unless one of the draw-heads is
 30 higher than the other, when the link of the lower head may be elevated through the medium of the devices described. In any event it will be perceived that with a coupling such as herein described the objectionable neces-
 35 sity of a person going between the cars to couple or uncouple the same is obviated.

Although I have specifically described the construction and relative arrangement of the several elements of my improved coupling,
 40 yet I do not desire to be confined to the same, as such changes or modifications may be made as fairly fall within the scope of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-
 45 ent, is—

1. In a car-coupler, the combination, with a draw-head, a rearwardly-pitched hook rising from the longitudinal center of the bottom of the draw-head at the forward end thereof and
 50 having its forward edge beveled to form a downward projection, and a vertically-dis-

posed pin taking through the draw-head adjacent to the inner or rear end thereof, of a link having its rear end square with respect to its sides and having its forward end bev- 55 eled, substantially as and for the purposes specified.

2. In a car-coupling, substantially as described, the combination, with a draw-head comprising a bottom wall, side walls, and a 60 top wall at the inner ends of the side walls, a rearwardly-pitched hook rising from the bottom wall adjacent to its forward end and having its forward edge beveled, a pin taking through the draw-head, and a link engaged 55 by said pin, of the vertically-disposed pitmen taking through apertures formed in the bottom of the draw-head and adapted to engage the link, a cross-bar connecting said pitmen, and a suitable means for raising said pitmen, 70 substantially as specified.

3. In a car-coupling, substantially as described, the combination, with a draw-head, a hook rising from the bottom wall of the draw-head, a pin taking through the draw- 75 head, a link straddling the hook and engaging the pin, the vertically-disposed pitmen taking through apertures in the bottom of the draw-head and adapted to engage the link, and a cross-bar connecting said pitmen, of the 80 levers fulcrumed upon the sides of the draw-head and having the laterally and rearwardly extending hooks at intermediate points in their length, links connecting the levers and the cross-bar of the pitmen, the rock-shaft, 85 the arms carried by said rock-shaft and engaging the hooks of the levers, and a suitable means for rocking the rock-shaft, substantially as specified.

4. In a car-coupler, a link in combination 90 with a draw-head, a rearwardly-pitched hook rising from the draw-head at the forward end thereof and having its forward edge beveled, and a curvilinear plate connected to the forward edge of the hook and extending rear- 95 wardly of the same, substantially as specified.

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

JOHN N. BRAUN.

Witnesses:

FRANCIS TITTER,
 THOMAS HOLMES.