W. A. BUSHEY.

CAR-COUPLING.

No. 184,332. Patented Nov. 14, 1876.

Fig. 1.

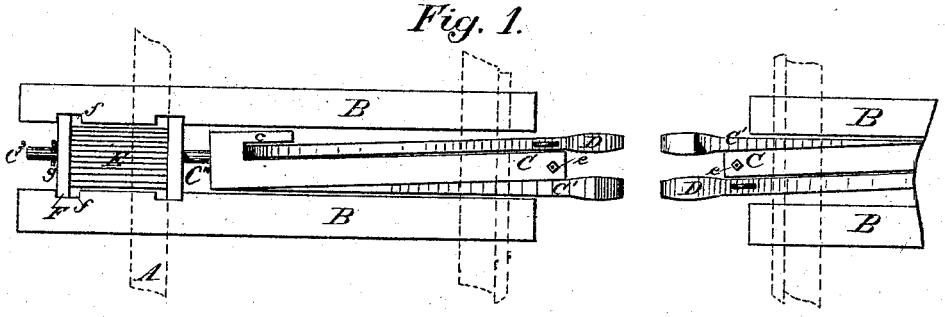


Fig. 2.

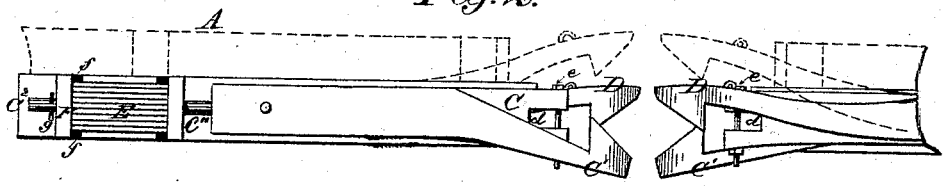
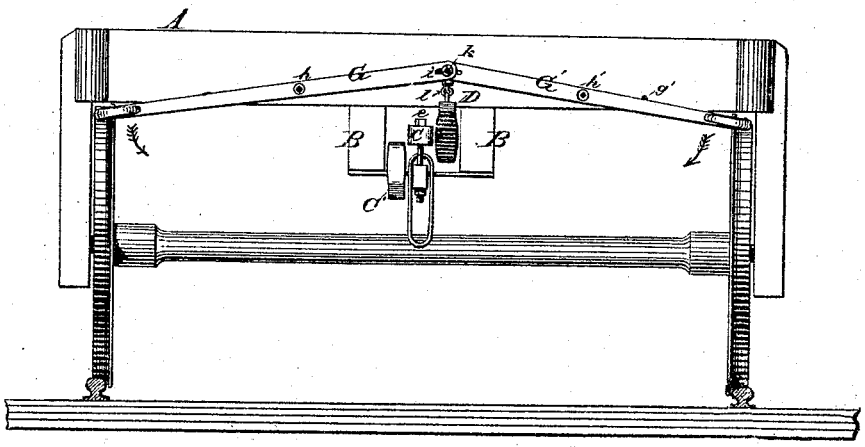


Fig. 3.



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UNITED STATES PATENT OFFICE

WILLIAM A. BUSHEY, OF RIPON, WISCONSIN.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **184,332**, dated November 14, 1876; application filed June 6, 1876.

To all whom it may concern:

Be it known that I, WILLIAM A. BUSHEY, of Ripon, in the county of Fond du Lac and State of Wisconsin, 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 top plan. Fig. 2 is a side elevation, and Fig. 3 is a front view.

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

This invention relates to that class of car-couplings by which the coupling is effected automatically by the cars coming in contact with each other; and it consists in the construction and arrangement of parts, whereby a durable and efficient coupling is produced, as hereinafter more fully explained.

A is the front platform of a car, to the under side of which are affixed strong beams B, by which the draw-head is formed. Within this are arranged the buffer C and coupling-hook D. The former consists of a square bar of steel or iron, of the configuration shown more clearly in Fig. 1—*i. e.*, consisting of the centrally-solid buffer-stem, to one side of which is rigidly affixed the stationary hook C^1, and on the side opposite to this hook is a slot, (denoted by *c*.) Within this slot is pivoted the swinging coupling-hook D, in such a manner that it may readily move up or down. The front part of the buffer-stem C has a horizontal slot, *d*, perforated vertically, so as to admit of the insertion of a pin, *e*, when it is desired to use my improved automatic car-coupling with cars having the ordinary old-fashioned link-and-pin coupling. The rear part of the buffer C has a tenon, (denoted by C^2,) which passes through a coiled or rubber spring, (denoted by E.) To the rear side of this spring is affixed a plate, F, which slides in slots or recesses (denoted by *f*) on the inner side of the draw-head B. Plate F is perforated, the tenon C^2 passing through the perforation, and is held in its position and prevented from slipping through it by a retaining-pin, *g*. It is obvious that any suitable spring may be used in order to impart elasticity to the buffer or coupling hooks. To the front part of the platform are pivoted two levers, G and G′, having their fulcrums at *h* and *h′*, respectively. The ends of these levers are slotted, as shown at *i*, and within these slots slides a bolt, *k*, carrying the chain *l*, which passes from bolt *k* down to the pivoted coupling-hook D, so that by moving either lever downward in the direction of the arrow, the coupling-hook D on either platform will be raised. The lever G′ on each platform may be secured in its raised position by means of a pin or hook, *g′*, whenever it is desired to leave the cars uncoupled.

From the foregoing description, and by reference to the drawings, the operation of my improved car-coupling will be readily understood. The stationary hooks C^1 and the swinging hooks D are so arranged in their relative positions that when, in coupling, the cars come together, the swinging hook D of one platform will meet and push against the stationary hook C^1 opposite, and vice versa. These hooks being of the configuration shown in Fig. 3—*i. e.*, with pointed and beveled fronts—each of the movable hooks D will be gradually raised by the bevel of the stationary hook C^1, with which it engages until the end of the bevel is reached, when the hooks will drop into each other, and the coupling is effected. In order to uncouple the cars, levers G G′ are depressed, which may either be done from the sides of the cars, from the platform, or from the roof, by levers and chains or rods suitably arranged, in the manner well understood.

The advantages of my improved automatic car-coupling are, first, cheapness of construction, its essential parts being only two in number—viz., the buffer and stationary hook, which are cast in one piece, and the swinging hook, which is pivoted in recess *c*. Second, it may be used upon or affixed to any car with but little difficulty, and its construction is such as to render it exceedingly strong and durable. Third, accidents by accidental uncoupling or by the breaking of the hooks are almost impossible, for the reason that the cars have two couplings, each of the hooks C^1 and D constituting an independent coupling with the cor-

responding hooks of the opposite car, so that if either one hook should break the coupling would still be complete by means of the other hook.

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

The combination of the beams B B, buffer C, having hook C^1 rigidly attached, vertically-swinging hook D, chain *l*, sliding bolt *k*, and levers G G′, all combined and arranged for operation 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.

WILLIAM ALBERT BUSHEY.

Witnesses:

JOHN H. BUSH,

THOMAS HARRIS.