W. C. Bussey
Car-Coupling
No. 43,969 Patented Aug. 30, 1864.

Fig. 1.

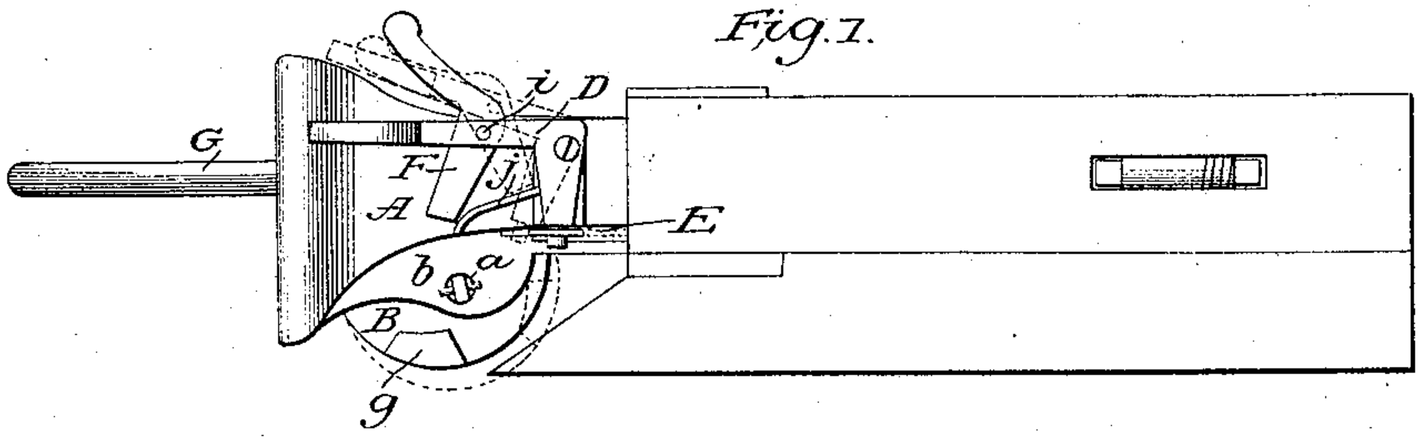


Fig. 2.

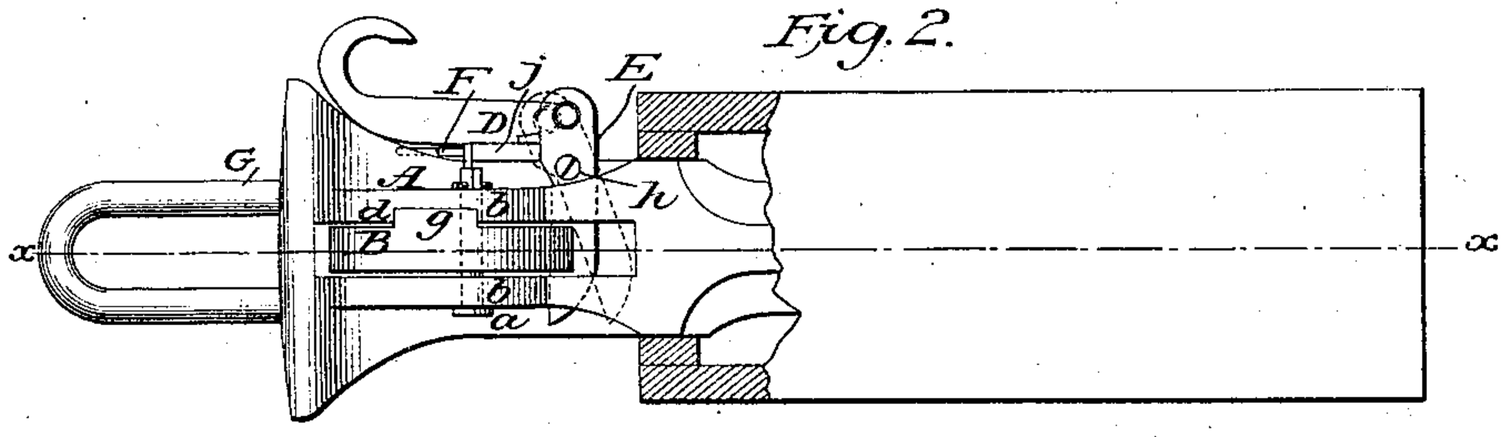
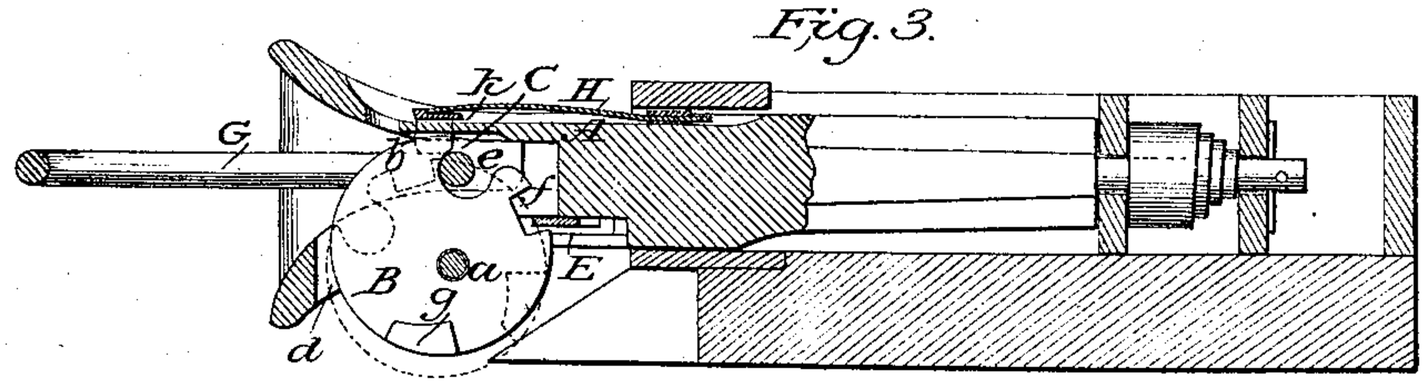


Fig. 3.



Witnesses:
Henry Morris
C. L. Topliff

Inventor:
W. C. Bussey
per Munn & Co
attys

UNITED STATES PATENT OFFICE.

WILLIAM C. BUSSEY, OF JACKSON, CALIFORNIA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **43,969**, dated August 30, 1864.

To all whom it may concern:

Be it known that I, WILLIAM C. BUSSEY, of Jackson, in the county of Amador and State of California, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable any person skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, an inverted plan of the same; Fig. 3, a side sectional view of the same, taken in the line *x x*, Fig. 2.

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

This invention relates to a new and improved car-coupling of that class which are commonly termed "self-coupling;" and it consists in the employment or use of an eccentric hook-wheel in connection with a lever, latch, and a trigger, all arranged and applied to a draw-head to operate as hereinafter set forth.

The invention further consists in the employment or use of a clamp, arranged as hereinafter set forth, for the purpose of holding the coupling link in a horizontal position and admitting of it entering the draw-head of an adjoining car.

A represents a draw-head, the front end of which may be of the usual flaring form and the rear part applied to the car in the ordinary or any proper way.

B is a wheel, which is placed eccentrically on a shaft, *a*, the bearings *b* of which are in lugs at the under side of the draw-head, the wheel working in a slot, *d*, in the bottom of the draw-head. The wheel B has a recess, *e*, made in its periphery to form a hook, C, as shown clearly in Fig. 3, and just back of this recess *e* there is made a notch, *f*, the use of which will be presently shown. On the lower part of the wheel B, at one side of it, there is a projection, *g*, which serves as a stop to limit the movement of the wheel.

D represents a bent lever, which is attached to one side of the draw-head A, and has its lower end fitted in the outer end of a lever-plate, E, the fulcrum-pin *h* of which is in the under side of the draw-head. This plate E extends across the draw-head back of hook-wheel B, and the upper part of the bent lever D is heavier than the lower part, and consequently has a tendency to keep the inner part of the plate E in contact with the face of the wheel B.

To the inner side of the upper part of the bent lever D there is attached by a pivot, *i*, what I term a "trigger," F, which is also of bent form similar to the lever D, and to the side of the draw-head, just below the trigger F, there is a plate or step, *j*, on which the lower end of the trigger F rests when the lever D is raised, as shown in red outline in Fig. 1. When the lever D is thus raised, the plate E is held out from the face of the hook-wheel B.

G represents a shackle or coupling-link, which may be of the usual form, and therefore does not require a minute description.

The operation is as follows: In order to set the coupling so that it will connect itself with the coupling of an adjoining car, the trigger E is drawn back so as to throw its lower end off from the plate or step *j*, which releases the lever D and allows it to drop and bring the plate E in contact with the face of the wheel B, which wheel, when the lever is released, has its hook C in the front part of the slot *d*, and the back of the recess *e* in line with the shackle or coupling-link G, when the latter enters the draw-head, and said shackle consequently will strike the back of recess *e* and turn the wheel B until the stop *g* strikes the under side of the draw-head, at which time the plate E will be forced into the notch *f*, and the wheel will thereby be held in position with the hook C through the link, as shown in Fig. 3, and the two draw-heads will consequently be connected, the shackle when entering the vacant or empty draw-head of one car being secured in the draw-head of the adjoining car.

In order to release the shackle or coupling-pin, the lever D is simply raised in order that the trigger F may rest on the plate or step *j*, and the plate E is thereby drawn out from the notch *f* in the wheel B, and the latter, in consequence of the increased weight at the hook side of the wheel, will turn so that the hook C will pass out of the shackle or link, as shown in red outline in Fig. 3.

In order to retain the shackle or link G in a horizontal position in the draw-head, so that

it may enter the empty or vacant draw-head of an adjoining car, I employ a spring-clamp, which is composed of a flat spring, H, attached to the upper surface of the draw-head, and having a cross-head, *k*, at its front end, provided with one or more pendants, *l*, which pass through the top of the draw-head and press upon the link and hold it in proper position, horizontal, or nearly so, so that it may enter the vacant or empty draw-head.

I would remark that any suitable attachment may be applied to lever D in order to raise the latter from the top of the platform or from either side of it.

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

1. The eccentric hook-wheel B, in connection with the lever D, plate E, and trigger F, all arranged to operate with the shackle or link G in the manner substantially as and for the purpose herein set forth.

2. The spring-clamp composed of the spring H and pendants *l*, one or more, substantially as and for the purpose specified.

WILLIAM C. BUSSEY.

Witnesses:
J. G HIGH,
C. H. BUMPUS.