

(No Model.)

2 Sheets—Sheet 1.

E. B. REID.
CAR COUPLING.

No. 487,772.

Patented Dec. 13, 1892.

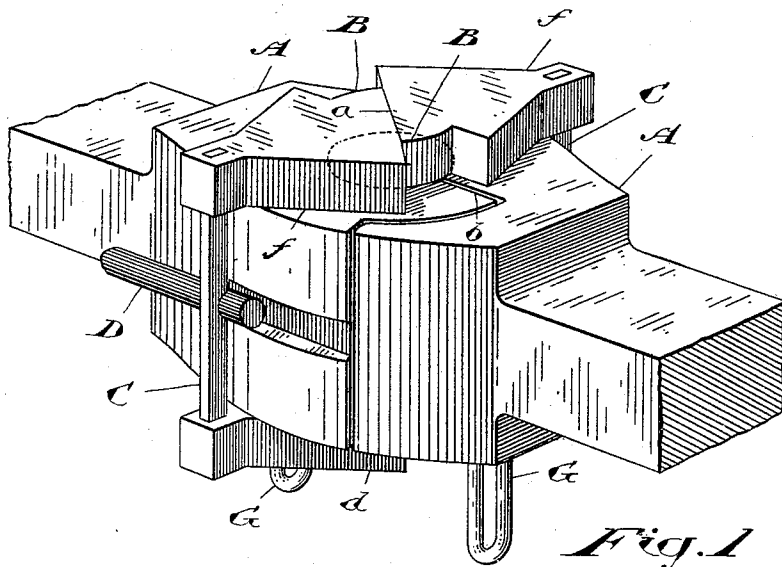


Fig. 1

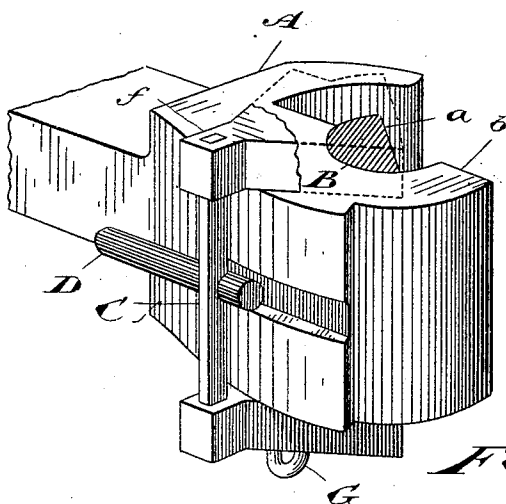


Fig. 2

Witnesses

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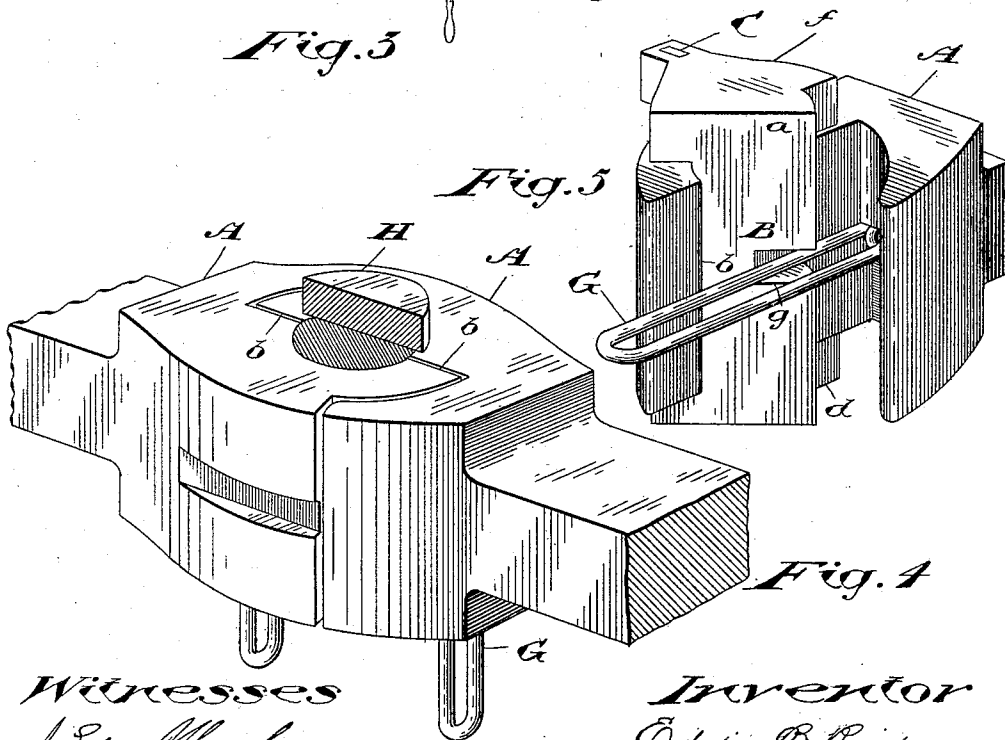
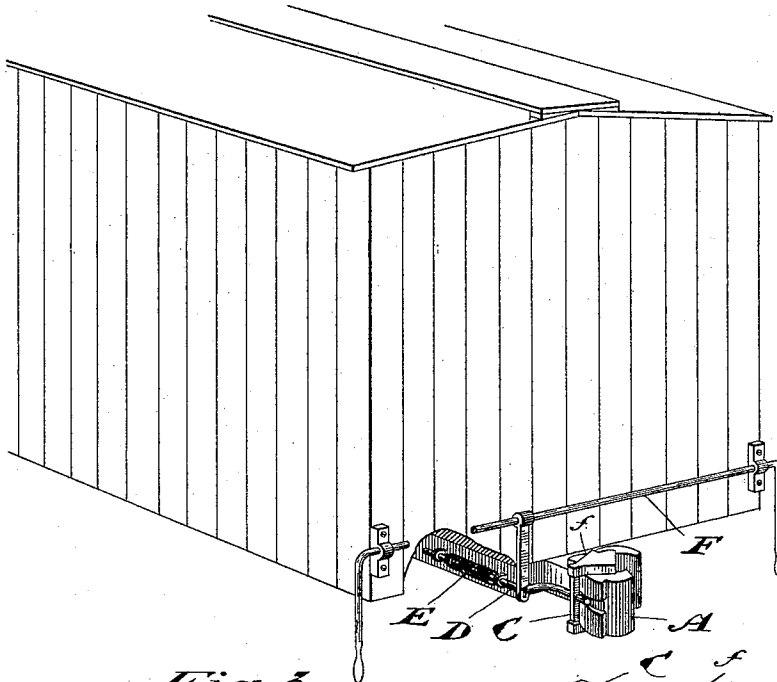
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

EDWIN B. REID, OF BARRIE, CANADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 487,772, dated December 13, 1892.

Application filed February 25, 1892. Serial No. 422,762. (No model.)

To all whom it may concern:

Be it known that I, EDWIN B. REID, of the town of Barrie, in the county of Simcoe, in the Province of Ontario, Canada, have invented a certain new and Improved Automatic Car-Coupler, of which the following is a specification.

The object of the invention is to produce a simply-constructed self-acting car-coupler; and it consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described, and then definitely claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved automatic car-coupler, showing the heads connected together. Fig. 2 is a perspective view of one of the heads, showing the position of the locking-roller set to connect. Fig. 3 shows one end of a car with a head of my car-coupler in position. Fig. 4 is a view of my coupler with the locking-rollers removed and a coupling-pin substituted. Fig. 5 is a view of the draw-head with the link in a horizontal position.

A is the head of the coupler, which is connected to the car in the ordinary way. Each car is furnished with a head A, constructed in every respect like each other and formed, as shown in Fig. 4, so as to fit together and leave a round hole between them, into which the insertion of a pin will lock the two heads together. Each head A is provided with one half of what I term a "locking-roller" B. Each half of the locking-roller B is suitably held in position and arranged so that a spring shall hold the face *a* of the roller B at an angle, as indicated in Fig. 2.

I do not wish to confine myself to the manner in which each half of the locking-roller B is held in position or how the spring is arranged to accomplish the purpose specified; but in this specification I show a practical form to effect the desired end and which consists of a flange *f*, formed on the top end of the roller B to rest upon the top of the head A, and a similar flange *d* on the bottom end of the roller B and arranged to butt against the bottom side of the head A. This flange extends over the edge of the head A, and each

flange has a hole in it, through which a vertical key C is inserted. To this key C, I connect a horizontal rod D, carried in suitable bearings and provided with a spiral spring E, set so that its tension shall hold the roller B in the position shown in Fig. 2.

A crank-rod F is connected to the rod D and arranged as indicated, so that the roller B may be caused to revolve, for the purpose hereinafter specified.

When the two heads A are brought together, the nose *b* on each head comes in contact with the face *a* of the roller B, carried in the opposite head, and in this way each roller B is revolved on its pivot, so as to permit the nose *b* to pass it. The instant the nose *b* passes the roller B the said roller is revolved on its pivot by the action of the spring E, thereby bringing both halves of the said roller back into their initial position, (shown in Fig. 2,) thus locking the heads together.

In order to unlock the heads, it is merely necessary to rock the crank-rod F, so as to bring the faces *a* on a line with the center of the draw-head, thereby unlocking the coupler and permitting the two heads to be drawn apart.

In order to permit my coupler to connect with an ordinary link-coupling, I connect to each head A a link G, which when not required hangs down in the position indicated in Figs. 1, 2, and 4. When required for use, I raise it in a horizontal position, as shown in Fig. 5, making a notch *g* in the roller B, so as to support the said link in the desired position.

By removing the half-roller from each head A the two heads A may be coupled together by the insertion of a pin H, as shown in Fig. 4.

What I claim as my invention is—

1. An improved automatic car-coupler consisting of a draw-head shaped substantially as shown and provided with one half of a locking-roller B, a flange *f* on each end of said half-roller, a key C, connecting said flanges, and a rod D, connected to the key C, and controlled by the spring E, the whole being arranged to engage with a similarly-formed draw-head, substantially as described.

2. An improved automatic car-coupler con-

sisting of a draw-head shaped substantially as shown and provided with one half of a locking-roller B, movably held in position by the key C, actuated by a spiral spring on the rod D and arranged to engage with the other half of a locking-roller carried in a similarly-formed draw-head, substantially as and for the purpose specified.

3. An improved automatic car-coupler consisting of a draw-head constructed substantially as shown and provided with a notch *g*

and a link G, connected to the draw-head and arranged to hang vertically when not in use and to be supported in a substantially-horizontal position by said notch *g* when coupling with another draw-head, substantially as described.

Barrie, February 5, 1892.

EDWIN B. REID.

In presence of—

J. B. EDWARDS,

E. A. KORTRIGHT.