

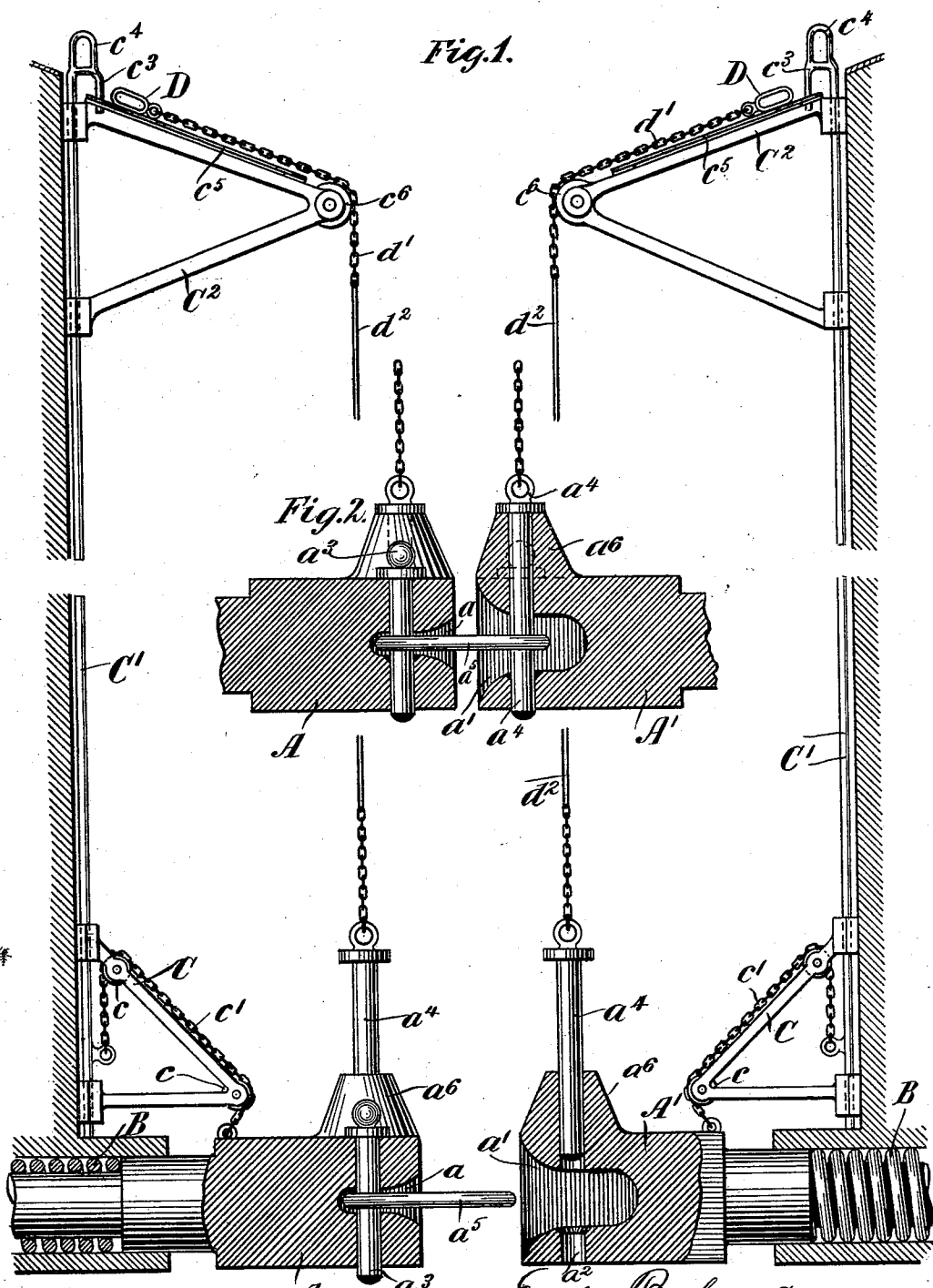
(No Model.)

2 Sheets—Sheet 1.

E. BALZER.
CAR COUPLING.

No. 568,726.

Patented Oct. 6, 1896.



Witnesses A
John T. Nordstrom
Richard J. Elliott

Emil Balzer Inventor
By his Attorney Henry Schreiter

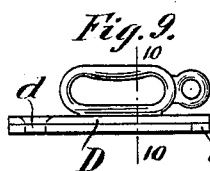
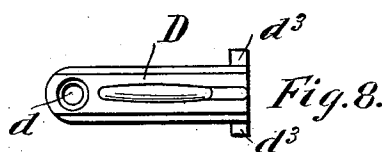
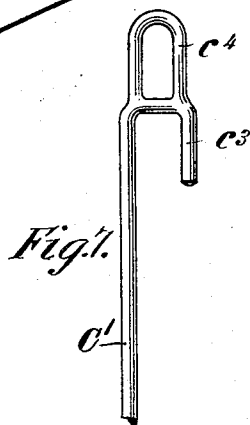
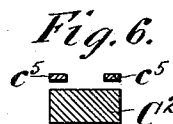
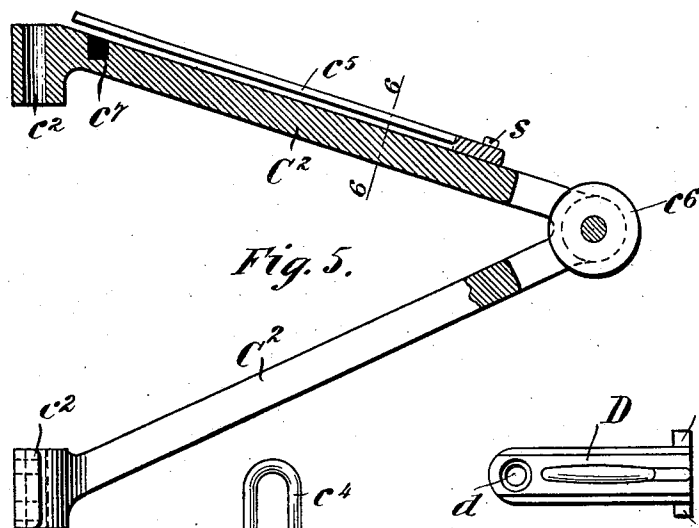
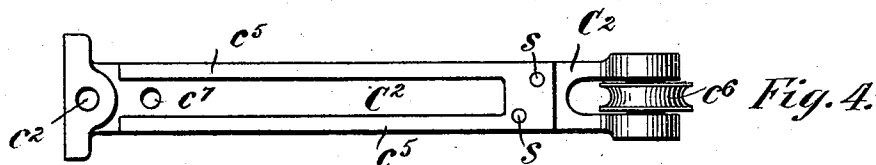
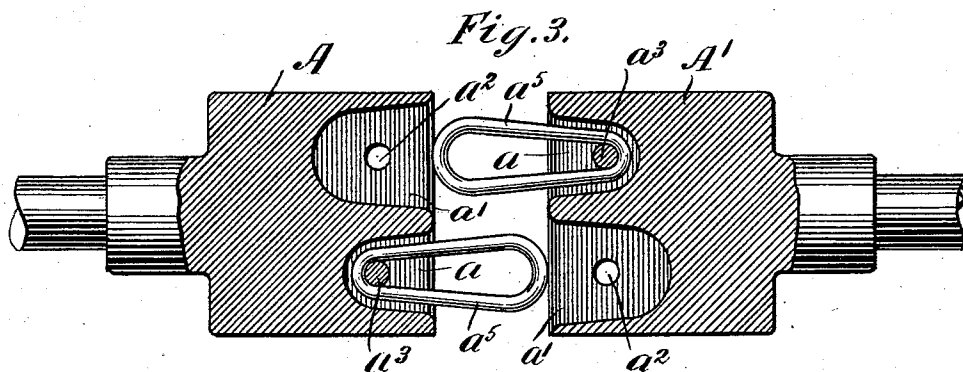
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2 Sheets—Sheet 2.

E. BALZER.
CAR COUPLING.

No. 568,726.

Patented Oct. 6, 1896.



Witnesses
John T. Nordstrom
Richard S. Elliott.

Emil Balzer Inventor
by his Attorney *Henry Schreiter*

UNITED STATES PATENT OFFICE.

EMIL BALZER, OF CHICAGO, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 568,726, dated October 6, 1896.

Application filed March 11, 1893. Serial No. 582,744. (No model.)

To all whom it may concern:

Be it known that I, EMIL BALZER, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to car-couplings; and it consists of an automatic link-and-pin coupling particularly adapted for use on freight-cars and of mechanism for unlocking the coupling from top of a car, the coupling being effected automatically by the impact of the draw-heads when the cars are pushed together.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section showing the ends of two cars with their couplings set for action. Fig. 2 is a vertical section of the draw-heads coupled together. Fig. 3 is a horizontal section of the draw-heads uncoupled. Fig. 4 is a top view of the chain-bracket. Fig. 5 is a side elevation and partly a section. Fig. 6 is a section on line 6 6 in Fig. 5. Fig. 7 is a side elevation of the hook. Fig. 8 is a top view of the sliding handle. Fig. 9 is a side view thereof. Fig. 10 is a cross-section on the line 10 10 in Fig. 9.

Similar letters of reference in the various views indicate corresponding parts.

The draw-heads A A' of the cars are secured in the usual manner to the truck of the car and act against the buffer-springs B. In the end of each draw-head are formed two cavities a and a', the smaller one, a, being adapted to hold the coupling-link a³, secured therein by the pin a³, in a substantially horizontal position. The other larger cavity, a', is designated to receive the coupling-link a⁵ when the draw-heads are pushed together, and through it passes the coupling-pin a⁴, being automatically released and dropping in the hole a² at the same time.

The coupling-pin a⁴ is suspended on chain d' and rod d² over bracket C², secured near the top of the car, sloped downward, and having a forked slide c⁵, screwed to its upper surface by screws. The chain d', on which coupling-pin a⁴ is hung, is attached to handle D, sliding on the bracket between the tines of the forked slide c⁵, and passes over pulley c⁶,

set on a stud in the vertex of the bracket C². When the coupling is open, the sliding handle is held at the top of the bracket C² by hook c³ of the handle c⁴, the pin entering the hole d, provided for this purpose in the elongated base of the handle D. Handle c⁴ is secured to (or made in one piece with) push-rod C', sliding along the wall of the car through holes c², provided for this purpose in the flanges of brackets C and C² and resting on the casing of the draw-head shanks. Near the lower end of the rod C' is attached to it the chain c', passing over the pulleys c c, set in the lower bracket C, and fastened at its other end to the draw-head. Thus when the draw-heads are forcibly joined push-rod C' is lifted, hook c³ is disengaged from the hole d, and the handle D being thus released pin a⁴ drops and effects the coupling by arresting link a⁵ in the cavity a', as above described.

On top of the draw-heads over the hole a² is provided a boss a⁶ to guide the coupling-pin a⁴, so that it will not slip out of hole a² when lifted.

To uncouple the cars, it is only necessary to pull up the handle D on the incline, thus lifting the coupling-pin a⁴ and releasing thereby the link a⁵. Then rod C' is lifted by the handle c⁴ and the hook c³ inserted again in the hole d in the handle-piece D. This must be done on both adjoining cars. There, however, may be a line stretched over the roofs of the cars and the handles D secured thereto, and then the uncoupling may be done from any point of the car by pulling this line upward.

I claim as my invention and desire to secure by Letters Patent—

1. In a car-coupling, the combination of a draw-head, having two cavities on the same plane, a coupling-link, set in one of these two cavities and a pin set vertically in the draw-head and engaging the link, holding it securely therein, in position to enter the corresponding cavity of an opposite draw-head, a drop-pin, sliding in a hole, passing vertically through the other cavity, and adapted to arrest the link of an opposite draw-head thereby coupling the draw-heads together, a bracket secured to the wall of the car above the draw-head, a grooved pulley set in the bracket over the pin-hole, a chain attached to the dropping-pin and passing over the pulley, a

forked guide, secured to the bracket, a sliding handle, attached to the chain, sliding on the bracket between the tines of the forked guide, and having a hole in its base-plate, adapted to receive a hook, whereby the dropping-pin may be lifted above the cavity in the draw-head and held in uplifted position.

2. In a car-coupling, the combination of a draw-head, having two cavities on the same plane, a coupling-link, set in one of these two cavities and a pin set vertically in the draw-head and engaging the link, holding it securely therein, in position to enter the corresponding cavity of an opposite draw-head, a drop-pin, sliding in a hole, passing vertically through the other cavity, a bracket secured to the wall of the car above the draw-head, a grooved pulley set in the bracket over the pin-hole, a chain attached to the dropping-pin and passing over the pulley, a sliding handle attached to the chain, having a hole in its base-plate and adapted to be held

in uplifted position by a hook, a push-rod, adapted to slide up and down along the wall of the car, a handle connected to the upper end of the push-rod and having a hook adapted to enter the hole in the base-plate of the lifting-handle, a bracket secured to the wall of the car above and in near proximity to the draw-head, grooved pulleys set in the bracket, a chain secured to the lower end of the push-rod passing around the bracket and connected to the draw-head for the purpose of automatically releasing the drop-pin from its fastening, when the draw-heads are forcibly joined.

In witness that I claim the improvements described in the foregoing specification I have signed my name in the presence of two subscribing witnesses.

EMIL BALZER.

Witnesses:

M. D. HOGAN,
EUGENE F. HUGHES.