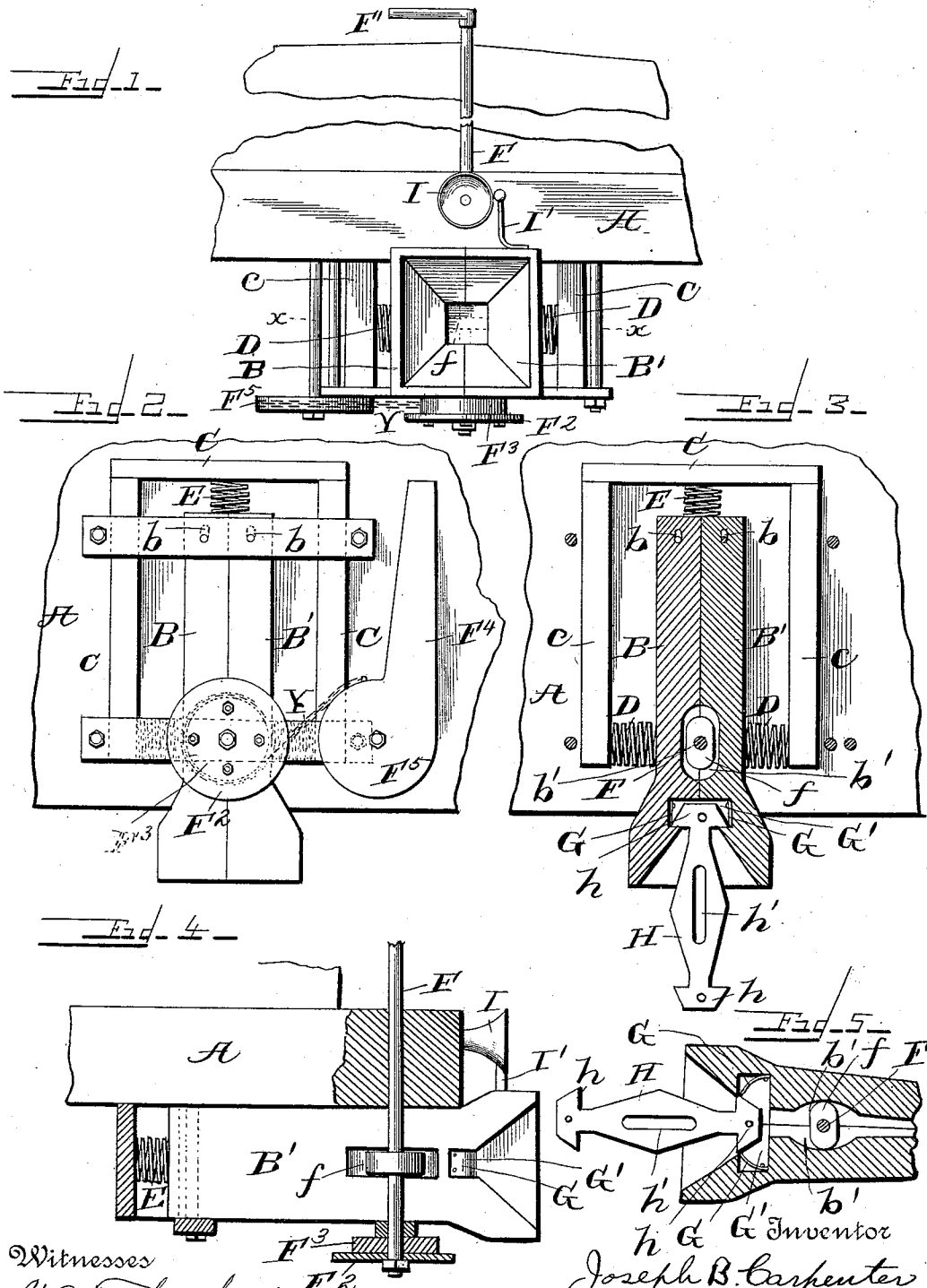


(No Model.)

J. B. CARPENTER.
CAR COUPLING.

No. 472,857.

Patented Apr. 12, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH B. CARPENTER, OF MARIETTA, SOUTH CAROLINA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 472,857, dated April 12, 1892.

Application filed July 25, 1891. Serial No. 400,695. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. CARPENTER, a citizen of the United States, residing at Marietta, in the county of Greenville and State of South Carolina, have invented certain new and useful Improvements in Car-Couplings; 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 relates to improvements in car-couplings; and the object of the same is to produce a coupler which can be easily and safely opened without going between the cars.

A further object is to have the coupler adapted to be operated either from the top of the car or from the sides thereof.

Another object of my invention is to have a signal secured to the end of a car and adapted to be operated by the coupling or uncoupling of the cars; and with these objects in view my invention consists of the parts and combinations of parts, as will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is a front elevation. Fig. 2 is a bottom plan. Fig. 3 is a sectional view on the line X X, Fig. 1. Fig. 4 is a longitudinal central section. Fig. 5 is a detail view.

Similar letters refer to similar parts throughout the several views.

A represents a car of usual construction; B and B', the two jaws, which have flared ends. These jaws are slotted at *b b*, in which slot work bolts.

C C are sides of a casing or housing around the jaws B and B'. The draw-head, composed of the jaws B and B', acts also as a draw-bar. Secured to the housing C are springs D D, which bear against the jaws B and B' on each side. These springs D D keep the jaws tightly together and allow them, as a body, to move from side to side in working around a curve. If the jaw B should be forced to one side by a curve in the road, the jaw B' would be forced up against the jaw B by the force of the spring D. This state of facts would exist in case the jaw B' was forced to one side.

E is a buffer-spring located back of and

bearing against the jaws B and B'. The jaws B and B' each have a groove *b' b'*.

F is a rod having a crank F'. Secured to the rod F is an oblong-shaped projection *f*, said projection being rounded on its ends and working in the grooves *b' b'* in the jaws B and B'. F² is a disk secured to the rod F underneath the car, and is provided with a drum F³, to which is attached one end of a chain or rope Y. Pivoted near the edge of the car-body is a lever F⁴, having a cam-head F⁵, to which is secured the other end of the chain Y.

G are springs secured in the recesses G' in the jaws B and B'. These springs serve to lift the coupling pin or link out of the recess G' when it is desired to uncouple the cars.

H is the coupling-link having the heads *h*. This pin is swelled in the center, and has slots *h'* cut entirely through it from the sides.

I is an alarm secured to the car in a suitable place, and I' is a striker secured to the jaw B'.

The operation is as follows: One end of the pin H being secured to a car, the free end is pushed against the jaws of the next car, which open under the pressure, and the pin forces the jaws apart and the head of said pin falls into the recesses G'. To uncouple the cars, I pull the lever F⁴ out a very slight distance and this, through the chain Y, revolves the disk F², which in turn revolves the rod F and the oblong projection *f* in the groove *b'*, which gradually opens the jaws, and the springs G raise the pin H to a position where it can be pulled out of engagement. (See Fig. 5.) In case it is desirable or necessary to uncouple the cars from the top, the brakeman operates the handle F', which works independent of the lever F⁴.

I make one head of the link H smaller than the other, so that in case any of the cars in a train should leave the track it will pull the link at such an angle that the derailed car will uncouple itself by pulling the small head of the link out of the draw-head.

It is to be understood that the cars will not uncouple on a curve, no matter how short it is, but will only uncouple when the car leaves the track. It is obvious that the link H can be bent, in order to adapt it to couple cars of different heights, and that the slots *h'* form

handles, whereby the same can be readily handled.

What I claim, and desire to secure by Letters Patent, is—

- 5 1. The combination, with the draw-heads having recesses G' , of the springs G , located therein, for the purposes set forth.
2. The combination, with a car-coupler, of an alarm adapted to be sounded by coupling
10 or uncoupling, for the purposes described.
3. In a car-coupler, the combination, with the pivoted draw-heads having grooves $b' b'$

and the springs D and E , of a rod having the projection f , working in said grooves b' , the drum F^3 , and disk F^2 , the lever F^4 , and chain 15 connecting said drum and lever, substantially as described.

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

JOSEPH B. CARPENTER.

Witnesses:

M. L. WEST,

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