

(No Model.)

G. F. HARLAN.
CAR COUPLING.

No. 423,152.

Patented Mar. 11, 1890.

Fig. 1.

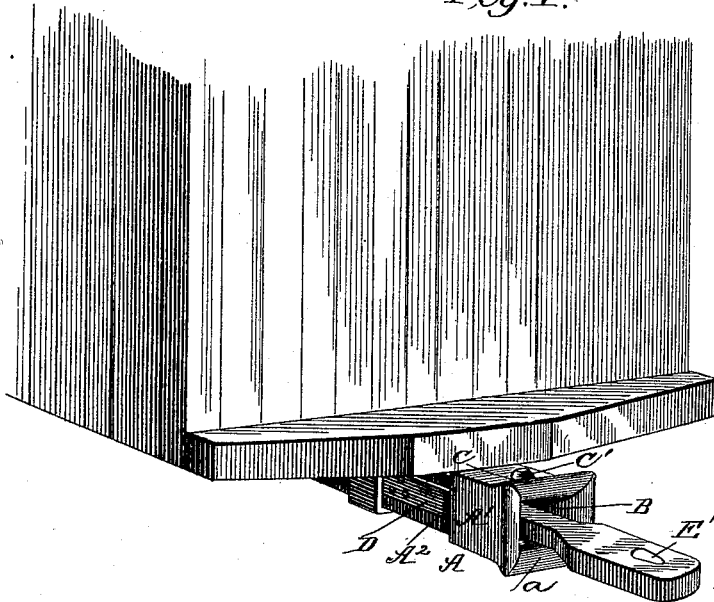


Fig. 2.

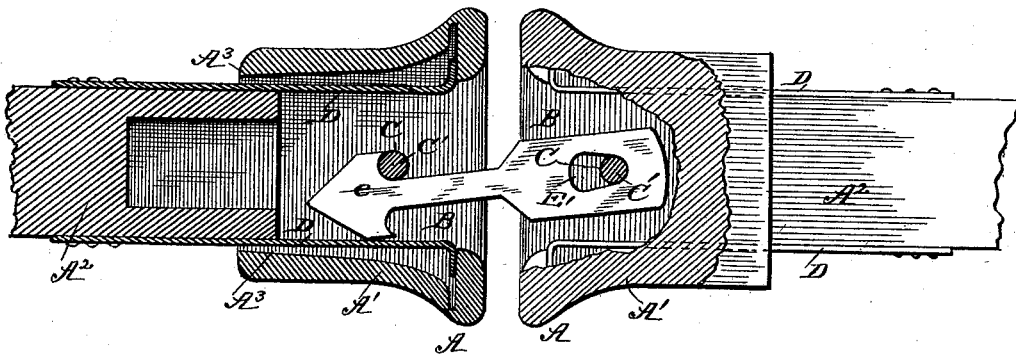


Fig. 3.



WITNESSES:
Fred G. Dieterich
P. B. Surpin.

INVENTOR:
George F. Harlan.
BY *Munn & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE F. HARLAN, OF LEEDS, MARYLAND.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 423,152, dated March 11, 1890.

Application filed January 11, 1890. Serial No. 336,705. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. HARLAN, of Leeds, in the county of Cecil and State of Maryland, have invented a new and useful
5 Improvement in Car-Couplings, of which the following is a specification.

My invention is an improvement in car-couplings; and it consists in certain novel constructions and combinations of parts, as
10 will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective side view of a car with my coupling attached. Fig. 2 is a horizontal sectional view of two
15 draw-heads with the pin in coupled position, and Fig. 3 is a side elevation of the coupling-bar.

The draw-head A may in general form be of ordinary construction, having the flaring
20 mouth *a*, leading to its throat or mortise B, and provided with suitable openings C for the coupling-pin C'. I make the draw-head with the end or head portion A' and the shank or draw-bar portion A² in rear thereof,
25 slots A³ being formed through the rear wall of the head A' for the passage of the spring-plates D D. Now, while these springs may be secured to the draw-head in any suitable manner, I prefer to extend them through the
30 slots A³, secure their rear ends to the shank or draw-bar A², against which they are lapped, and have their front portions arranged on opposite sides of the pin C', and arranged to spring outward at such ends to admit the
35 shouldered or arrow head of the coupling-bar, and then in to hold such bar in engagement with the pin C'. It will be seen that the draw-heads are alike, the coupling-bar being secured at one end by the pin of one
40 draw-head and having its opposite end formed with an arrow-head *e* to enter the meeting draw-head and be held in engagement with the pin thereof by the spring-plates. Now it will be seen that my coupling presents a
45 construction in which the side springs form bearings for the arrow-head and guide the same into engagement with an intermediate securing device and hold the head in such engagement.

50 While I prefer the double form of arrow-

head shown, it is manifest that a single shouldered arrow-head might be employed without departing from some of the broad principles of my invention. In such construction the draw-head of course need have
55 but one spring-plate and have a suitable guide construction to properly direct the single shoulder of the coupling-bar into engagement with the pin or other fastening device. It will be noticed that the arrow-head is tapered
60 upward on its under side to its point.

In securing the coupling-bar in the draw-head which supports it I provide such coupling-bar with an opening E', which receives
65 the coupling-pin, and such opening E' is widened at its forward end, so as to permit the bar to play laterally on its securing pin, so that the coupling-bar cannot by any possibility be so tightened in the draw-heads as to
70 bind against the coupling-pin engaged by its head, so as to prevent the lifting of the said pin to detach the coupling.

It is obvious that in case it is desired to couple to an ordinary draw-head the improved
75 draw-heads are adapted to receive and secure the ordinary link.

Having thus described my invention, what I claim as new is—

1. In a car-coupling, the draw-head provided with guide-openings for the coupling-
80 pin and provided on opposite sides of such guide-openings with spring-plates by which to direct the arrow-head into engagement with the coupling-pin held in such guides, all
85 substantially as set forth.

2. In a car-coupling, the draw-head having the head or front portion and the shank or draw-bar portion in rear of such head and
90 having slots or openings in the rear walls of such head portions and the spring-plates extended through the said slots and secured at their rear ends to the sides of the draw-bar portion, substantially as set forth.

3. In a car-coupling, a coupling-bar having an arrow-head at one end and having at its
95 opposite end an opening for the securing-pin, such opening being widened at its front end, substantially as set forth.

4. The improved car-coupling consisting of the draw-head having a coupling-pin ar-
100

ranged for engagement by the arrow-head
and having a spring plate or plates by which
to press the head into engagement with the
pin and the coupling-bar having an arrow-
5 head at one end and having an opening for
its securing-pin, such opening being widened
toward one end, substantially as set forth.

The above specification of my invention
signed by me in the presence of two subscrib-
ing witnesses.

GEORGE F. HARLAN.

Witnesses :

P. B. TURPIN,
SOLON C. KEMON.