

(No Model.)

C. J. GANO.
CAR COUPLING.

No. 302,122.

Patented July 15, 1884.

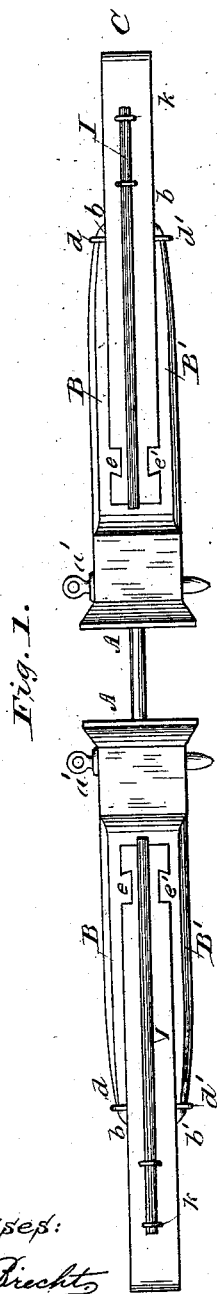


Fig. 2.

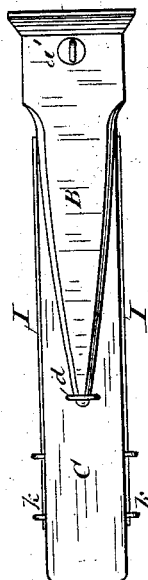


Fig. 3.



Fig. 4.

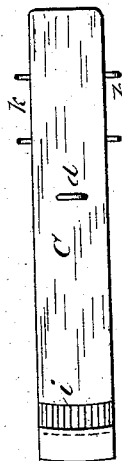
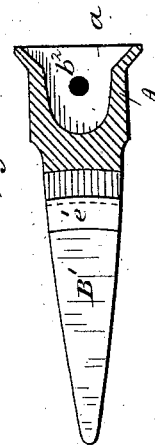


Fig. 5.



Witnesses:

T. C. Bischoff

F. D. Ellsworth

Inventor

Charles J. Gano,

by R. K. Evans

his Attorney.

UNITED STATES PATENT OFFICE.

CHARLES J. GANO, OF RICHFIELD SPRINGS, NEW YORK, ASSIGNOR OF TWO-THIRDS TO GARRETT B. GANO, OF SAME PLACE, AND PHILIP H. BROWN, OF WEST WINFIELD, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 302,122, dated July 15, 1884.

Application filed May 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. GANO, of Richfield Springs, in the county of Otsego and State of New York, have invented a new and Improved Car-Coupling; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of two draw-heads coupled and in their normal position. Fig. 2 is a plan view showing the draw-head leaving the draw-head bar when a car jumps the track. Figs. 3, 4, and 5 are detail views.

My invention relates to couplings for cars, and has for its object to provide a coupling which will automatically relieve or let go a car which has been derailed.

My invention consists in a divided draw head and bar, one being movable in relation to the other within an arc of a circle.

My invention also consists in sundry details of construction, hereinafter fully described, and specifically pointed out in the claims.

In order that those skilled in the art may make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the said drawings, A is the draw-head, provided with an opening, *a*, to receive the ordinary link, and a hole, *b'*, in which to insert a coupling-pin, *a'*, to secure said link. Backward from the draw-head project two tangs or plates, B B', their ends reduced, as seen at *b b'*, to enter two staples, sockets, or equivalent devices, *d d'*. The inner surfaces of plates B B' are flat and parallel, and are provided with curved projecting ribs *e e'*—in this instance shown dovetailed.

Fitting between the tangs or plates B B' is a rectangular draw-bar, C, provided on its upper and lower surfaces with curved grooves or recesses *i i'*, conforming in shape to the ribs *e e'* on the tangs or plates B B'. The lines of the ribs *e e'* and the grooves *i i'* are struck on curves, the centers of which would be about the sockets *d d'*.

Along each side of draw-bar C are two springs, I, secured at one end, *k*, and having their free ends resting against the sides of draw-head A, so that the normal position of the draw-bar and draw-head is in line, as seen in Fig. 1.

It will be observed that as the cars move around curves the draw-head will vibrate in a horizontal plane to a limited extent, and thereby make the pull tangent to the curve, thereby, to a great extent, avoiding the heavy binding of the flanges of the wheels. When a car leaves the track, it necessarily throws draw-head A so far to one side of a line with draw-bar C that the ribs *e e'* pass out of grooves *i i'*, which hold A and C together, and the parts become detached, (see Fig. 2.) thereby releasing the derailed car from the adjacent car on the track, and avoiding dragging the latter from the track.

The positions of the ribs and grooves may be transposed, other sockets and springs than those shown may be used, and the conformation of the ribs and grooves may be changed without departing from the spirit of my invention.

I am aware that a vibrating draw-head kept in proper alignment by side springs is not new, broadly, and that such a draw-head has been supplied with a hole and pin to secure an ordinary coupling-link, and therefore I make no claim, broadly, to such devices; but as an automatically-removable draw-head to separate when the car leaves the track has not heretofore been constructed, and

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

1. In a car-coupling, a draw-bar, in combination with a vibrating automatically-removable draw-head, substantially as and for the purpose set forth.

2. In a car-coupling, a draw-bar, in combination with an automatically-detachable vibrating draw-head, A, substantially as described.

3. The draw-head A, provided with the tangs or plates B B', having on their inner

faces curved ribs *e e'*, in combination with the draw-bar C, provided with sockets *d d'*, curved grooves *i i'*, and side springs, I, all constructed, arranged, and operated as set forth.

- 5 4. The draw-bar C, in combination with an open-faced automatically-detachable vibrating draw-head provided with a hole, *a*, to

receive a coupling-pin, for the purpose specified.

CHARLES J. GANO.

Witnesses:

E. A. HINDS,

G. D. CANEY.