

G. C. HARLIN & F. N. BYRAM.
Car-Coupling.

No. 220,830.

Patented Oct. 21, 1879.

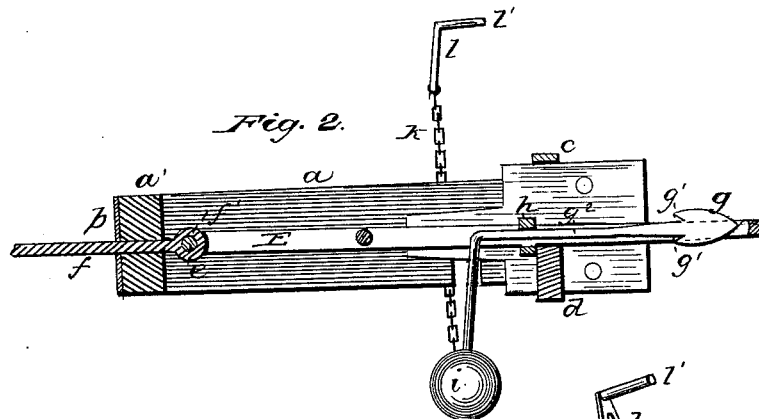
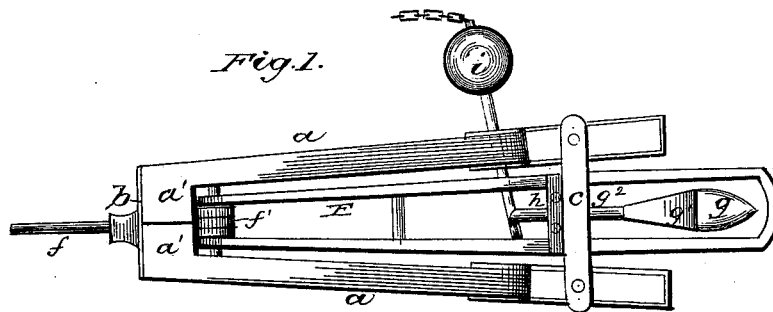
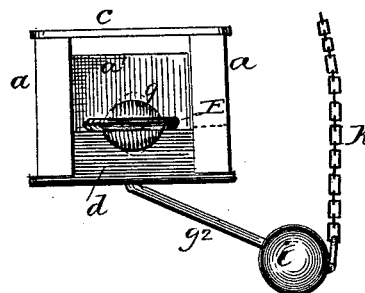


Fig. 3.



Witnesses
Red G. Dutrich
Will R. Oshumata

Inventor
George C. Harlin
F. Newton Byram
By Myer & Co.

UNITED STATES PATENT OFFICE.

GEORGE C. HARLIN AND FRANCIS N. BYRAM, OF SIGOURNEY, IOWA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **220,830**, dated October 21, 1879; application filed March 12, 1879.

To all whom it may concern:

Be it known that we, GEORGE C. HARLIN and F. N. BYRAM, of Sigourney, in the county of Keokuk and State of Iowa, have invented certain new and useful Improvements in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in car-couplers.

We will first describe a coupler embodying our improvements, and afterward point out in the claims the features which we regard as novel.

In the accompanying drawings, Figure 1 is a plan view of our car-coupler. Fig. 2 is a side or longitudinal view of the same, and Fig. 3 is a front view thereof.

The draw-head is composed of the sides *a*, united at the rear of the head by means of a suitable metal strap, *b*, which embraces both of the pieces, as shown.

It will be seen, by referring to the drawings, that these said pieces terminate in angular-shaped ends *a'*, whereby they are kept apart at the rear of the head, and that the cross-bars *c d* keep them rigidly apart at the forward portion of the head.

E is a metal frame, which is hinged between the sides *a*, by means of a bolt or pin, *e*, which passes through its rear end. The bolt *f*, which passes through the rear portion of the head, is formed with an eye, *f'*, and the pin *e* passes through this eye, whereby additional strength is given to the bearings of the frame.

The device for coupling consists of a head, *g*, with notches or shoulders *g'*, and rod *g²*, formed, in part, with or connected to the said head *g*.

The rod *g²* passes through and has its bearing in a cross-piece, *h*. This cross-piece is secured to the sides of the frame *E*.

The rod *g²* is straight until it passes through

the cross-bar *h*, after which it curves, so as to project laterally from the draw-head or buffer.

A weight, *i*, is secured upon the end of the rod, and serves to maintain it in such position that the notches upon the head *g* will be in horizontal planes. This device constitutes a revolving coupler.

Both cars are provided with similar coupling devices, and when brought together they will be coupled by engagement of the revolving notched heads.

In order to uncouple the cars, we provide a chain, *k*, which is connected at one end to the weight, and at its other end to a slotted catch-piece, *l*. This catch-piece *l* is designed to be attached either to the top of a freight-car, or to the platform of the usual car for passengers. In attaching this said catch-piece, a pin is passed through the slot, and driven or screwed into the top or platform of the car.

The catch-piece is provided with a handle, *l'*, whereby it may be readily manipulated by the brakeman. By raising this catch-piece, and consequently the chain, the weight is raised, the coupler revolved, and the cars uncoupled.

What we claim, is—

1. The revolving head *g*, rod *g²*, and weight *i*, applied to the swinging frame *E*, the said swinging frame being hinged between the sides of the buffer, substantially as shown and described.

2. In combination with the swinging frame *E*, revolving notched head *g*, rod *g²*, and weight *i*, the chain *k* and slotted catch-piece *l*, substantially as herein shown and described.

3. A car-coupler composed of the separated sides *a a*, a swinging frame, *E*, and revolving head *g*, swiveled in the same, substantially as set forth.

In testimony that we claim the foregoing as our own, we affix our signatures in presence of two witnesses.

GEORGE CALVIN HARLIN.

FRANCIS NEWTON BYRAM.

Witnesses:

B. C. HOWELL,

ROBERT P. CUS.