A. BURBEE.

Car-Coupling.

No. 196,111. **Patented Oct. 16, 1877.**

Fig. 1.

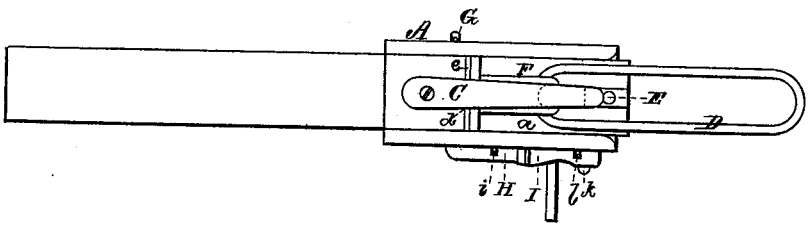


Fig. 2.

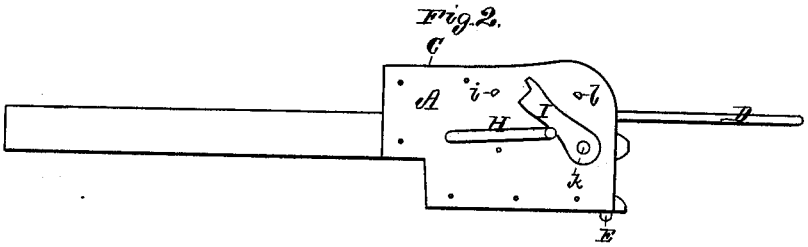
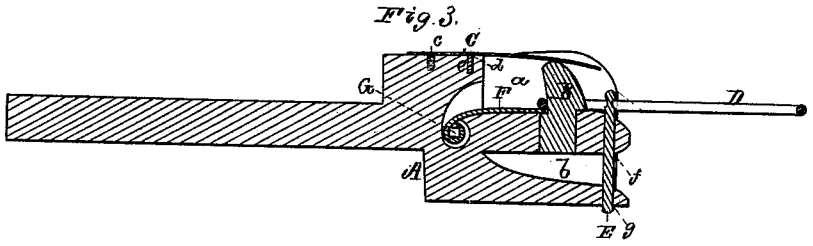


Fig. 3.



Witnesses.

S. N. Piper

L. M. Miller

Anson Burbee

by his attorney.

R. M. Eaby

UNITED STATES PATENT OFFICE.

ANSON BURBEE, OF CLAREMONT, NEW HAMPSHIRE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **196,111**, dated October 16, 1877; application filed March 21, 1877.

To all whom it may concern:

Be it known that I, ANSON BURBEE, of Claremont, of the county of Sullivan and State of New Hampshire, have invented an Improved Railway-Car Coupling; and do hereby declare the same to be described in the following specification, and represented in the accompanying drawings.

Figure 1 represents a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of my invention.

In such drawings, A denotes a railway-car draw-bar having in its head, and arranged therein as shown, two link-receiving chambers, *a b*, the upper of which is open at its top and front end, in manner as represented. From the bottom of the upper chamber there is extended upward within such chamber an inclined triangular tooth, B. To the upper side of the draw-bar head there is fixed, by a screw, *c*, a spring, C, which extends directly over and rests on the upper end of the tooth B. Such spring is held in such position by being sprung into a shallow notch, *d*, in a plate, *e*, arranged in the head in manner as represented. By lifting the spring at its free end it may be raised out of the notch, and turned laterally on its pivot or sustaining screw, in order for two cars to be coupled together when the heads of their next adjacent draw-bars may be in contact, and this without the necessity of moving either car on the railway-track in order to effect such coupling. Were the spring not movable laterally, such a movement of one or the other of the cars would be necessary to cause the coupling of them to take place.

The link shown at D is to hook upon or receive the tooth, such link under ordinary circumstances being by the spring maintained in engagement with the tooth. Should, however, one of the cars accidentally run off the track or be overturned, the link will readily be disengaged from the tooth, whereby uncoupling of the cars will follow.

On one car being moved up to another, the link projecting from the draw-bar of one of them will be forced endwise against the outer inclined surface of the tooth of the draw-bar of the other. The spring will give way, so as to allow the link to pass over the top of and engage with the tooth.

Holes *f g* are made through the bottoms of the two link-chambers, near their front ends, to receive a link-pin, E, which may be used to couple the link in case the draw-bar may be higher than that of another car to be connected by such link.

For forcing the link out of engagement with the tooth, I employ a discharger, consisting of a furcated arm, F, arranged in the tooth-chamber in manner as shown, and projected from an arbor, G, provided with a crank, H.

On taking hold of the crank and moving it upward, the discharger will be forced against the link, so as to press it off the tooth.

A notched latch, I, is employed to hold the crank in its highest position, or against a stud, *i*, such being to prevent, when desirable, the link of one car from coupling with the tooth of another. This latch, formed and arranged as represented, is pivoted to the side of the draw-bar head, the pivot being shown at *k*. A stud, *l*, projecting from the side of the draw-bar head limits the upward movement of the latch.

When the link is in engagement with the tooth, or to engage therewith, the coupling-pin E should not be in place in the holes *f g*, but only when such pin is used to hold the link in the lower chamber should it (the pin) be within the said holes.

By having the upper chamber of the draw-bar open at top as well as in front, the link, in case of a car accidentally running off the track or being overturned, can readily disengage itself from the tooth, which would not be likely to result were the said chamber closed at top.

I claim as my invention as follows:

1. A draw-bar provided not only with the tooth B, the pivoted spring C, and the notched plate *e*, arranged as described, but with the link-chamber *a* open at top and its front end, as set forth.

2. A draw-bar provided with the tooth B, spring C, link-discharger F, and the cranked shaft G, and supporting-latch I, arranged, applied, and to operate as specified.

3. A draw-bar provided not only with the

two link-chambers *a b* arranged in it, and having holes *f g* through their bottoms, all as described, but also having the tooth B and the spring C, all being substantially and to operate as set forth.

4. A draw-bar provided not only with the two link-chambers *a b* arranged in it, and having holes *f g* through their bottoms, as described, but also having the tooth B, the spring C, and the link-discharger F, arranged with the upper of said chambers, and to operate as explained.

ANSON BURBEE.

Witnesses:
R. H. EDDY,
J. R. SNOW.