

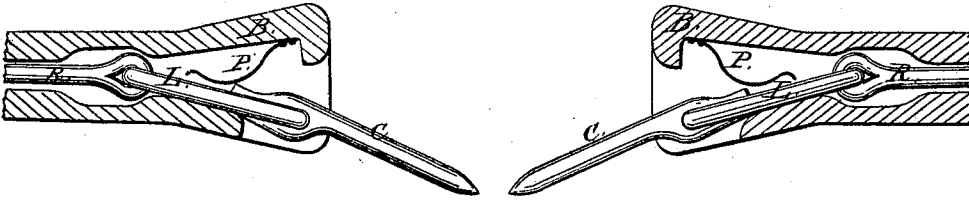
J. K. GRIFFIN.

CAR-COUPLING.

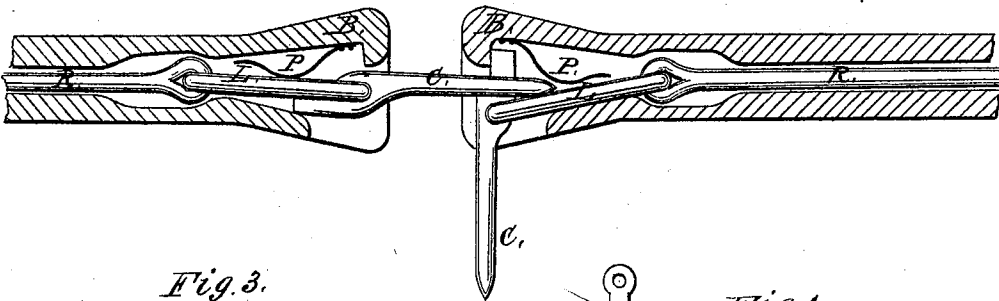
No. 177,238.

Patented May 9, 1876.

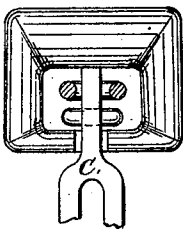
*Fig. 1.*



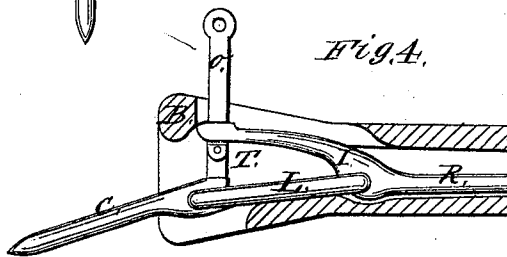
*Fig. 2.*



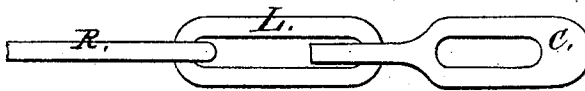
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses:

Henry Armstrong  
William Edgan.

Inventor.

James Kent Griffin

# UNITED STATES PATENT OFFICE.

JAMES KENT GRIFFIN, OF WATERDOWN, CANADA.

## IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. **177,238**, dated May 9, 1876; application filed September 9, 1875.

*To all whom it may concern:*

Be it known that I, JAMES KENT GRIFFIN, of Waterdown, Wentworth county, Province of Ontario, Canada, have invented an Automatic Car-Coupling, of which the following is a specification:

The object of this invention is to provide a perfectly-automatic car-coupling, as nearly like the ordinary coupling as possible, and to work with it, as cheap in construction and less expensive in operation, while equally effective and absolutely free from danger. It consists of two compound links and pins, secured and operated within their respective buffers, as hereinafter fully described.

Figure 1 is a longitudinal section through center of buffers, showing the coupling in position for connection. Fig. 2 is a longitudinal section through center of buffers, showing the connection completed. Fig. 3 is an elevation, showing front end of a buffer with a compound link in its place. Fig. 4 is a longitudinal section through center of a buffer, showing the extension of center rod supporting the coupling-pin over the links. Fig. 5 is a plan of a compound link and pin and center rod.

B B are the buffers. C C are the compound links and pins. R R are rods through center of buffers, connecting the links with the buffer-springs. P P are springs for regulating the angle or inclination of the outside links. In Fig. 4 is an extension of the rod R, with coupling-pin O over the links, by which, wherever advisable, the springs P P in Figs. 1 and 2 may be dispensed with, as the weight of the extension and pin resting on the end of the compound link holds it in place. The pin O passes through the extension I, and is provided with a toggle end, on which it rests till the entering link pushes it back, when it drops through the connecting-link, thereby sustaining the draft thus placed entirely on the wrought links. The compound links C C are connected, at the junction of the link and pin, with the connecting-links L L within the buffers B B, from the mouths of which they droop at an angle or inclination, regulated as aforesaid, so that, in connecting, the highest

link always overrides the other, by which it is raised to the mouth of the opposite buffer, which it enters, raising the overlying spring P, so that the underlying link, in falling, bears up its pin through the upper link to a rest or shoulder in roof of the buffer, as shown in Fig. 2, or the entering link pushes back the toggle T in Fig. 4, and is secured by the fall of the coupling-pin O, as described.

These compound links and pins may be applied, by a slight variation or modification of form, to the buffers in use, and, wherever advisable, the pins may be dispensed with, and the links provided with hooks or shoulders on the under side of their outside ends, to shut over the opposite ends, respectively, of the underlying links, which may be shaped to fit them, or to shut over or upon other hooks or shoulders within the buffers.

In coupling cars it is only necessary to set the outside links for coupling, if not already in place, and bring the cars together, when the connection is effected in the manner described. In uncoupling, the hanging link may be raised, thereby lowering the pin and releasing the connecting-link as the cars move apart; or the hanging link may be moved backward as it hangs, when the pin connected with it moves forward below the shoulder or rest, allowing the upper link to pass out; or when the coupling is used as shown in Fig. 4, the uncoupling is effected by raising the pin perpendicularly till the toggle falls under it, holding it up till the link moves out.

When there is not room in buffers, the extension I may be dispensed with, and the coupling-pin O and compound link held in place, as shown in Fig. 4, by a spiral spring secured to the roof of the buffer, and passing round the pin between the roof and toggle.

I claim as my invention in this coupling--

The combination of the buffer B, the rod R, link L, pivoted to said rod, and the link C, joined to the link L, all substantially as and for the object specified.

JAMES KENT GRIFFIN.

Witnesses:

HENRY ARMSTRONG,  
WILLIAM EDGAR.