

C. C. WILSON.
Car-Couplings.

No. 158,346.

Patented Dec. 29, 1874.

Fig. 3.

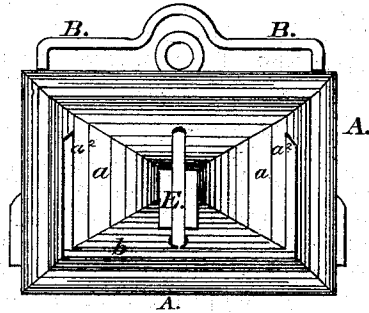


Fig. 2.

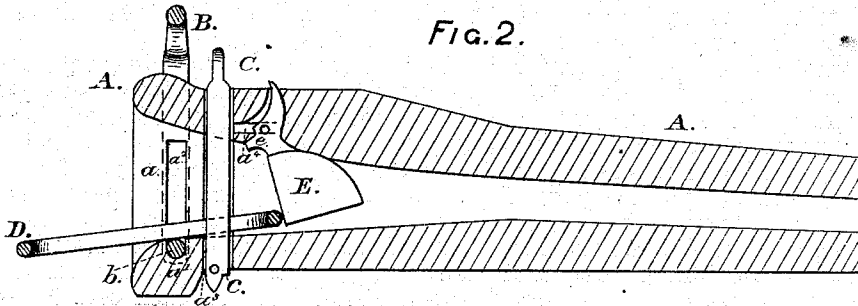
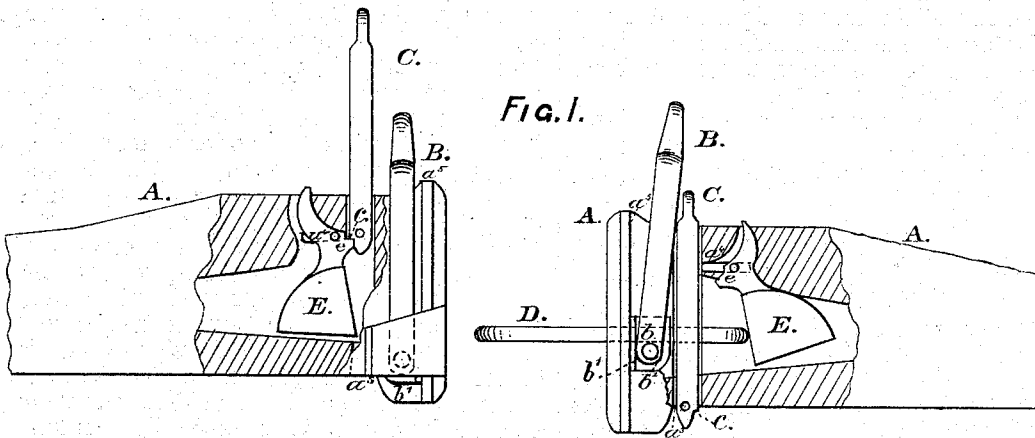


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE

CHARLES C. WILSON, OF KEWANEE, ILLINOIS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **158,346**, dated December 29, 1874; application filed September 17, 1874.

To all whom it may concern:

Be it known that I, CHARLES CALVIN WILSON, of Kewanee, in the county of Henry and State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings which form part of this specification.

My invention relates to a peculiar construction of coupling by means of which cars of different heights can be coupled together without adjusting the draw-head, and also to means of holding both pin and link in position for coupling, avoiding thereby the necessity of going between the cars to couple the same.

Draw-heads, as heretofore constructed, in order to adapt them to the different height of cars had to be made adjustable, and no provisions were made to hold the coupling-pin or hold the link at the proper height to enter the opposite draw-head, and ready for coupling; and my invention has for its particular object to remedy these defects.

But that my invention may be readily and fully understood, I will proceed to describe the same in detail by aid of the accompanying drawing.

Figure 1 is a side elevation, partly in section, Fig. 2 a longitudinal section, and Fig. 3 a front view, of a draw-head embodying my invention.

A is the draw-head, the mouth *a* of which, in order to couple together cars of different heights is made wider than usual in its vertical elevation, so as to allow the bail or yoke supporting the link to be moved up and down in its slots to adjust the same to different heights of cars. The mouth *a* is provided in its lower portion with a groove or recess, *a'*, connecting with vertical slots *a''* formed in the lateral sides of such mouth *a*. B is the bail, pivoted at each side of the mouth of the draw-head to a horizontal or transverse rod or bolt, *b*. The bolt or rod *b* traverses the whole width of the mouth, and works up and down in the vertical slots *a''*, and when the bail is down such rod fits into the groove or recess *a'*, and is flush with the inner surface of the mouth.

The bail B is provided with shoes or slides *b'*, also pivoted to the transverse rod *b*, by means of which the bail is held in position at any required height along the vertical slot *a''*, as will presently be more fully explained. C is the coupling-pin, which is provided on one side, at its lower portion, with a notch or shoulder, *c*. The object of said shoulder *c* is that the pin may be securely held on the weighted lever E when withdrawn from the link, as hereafter more fully explained.

In draw-heads as ordinarily constructed no provision is made to hold the pin in a perpendicular position out of the link ready for coupling, but is usually held in that position by leaning or inclining it backward or forward in a longitudinal slot formed in the upper part of the mouth of the draw-head, and when thus held is liable to fall down by the least jar, thus preventing the coupling of cars unless some person stands between such cars to lift the pin out of the way of the entering link. To avoid this difficulty, I employ a tongue or lever, E, for the purpose, the lower portion of which is weighted and forms a shoulder at *e*, such tongue or lever E being pivoted in a slot, *a'*, in the upper part of the mouth *a* of the draw-head in such a manner as to move freely backward and forward on its axis; hence when the pin is withdrawn it will press the tongue or lever E backward, and so soon as the shoulder *c* of the pin C has passed the shoulder *e* of the lever E such lever will swing or move forward again, the shoulder *c* of the pin resting on the shoulder *e* of the lever or tongue, and the inclined front face of the weighted part of the tongue or lever E will bear against the lower extremity of the pin C and hold it securely in a perpendicular position ready for coupling, which is automatically effected by the link D, which, on entering the mouth *a* of the draw-head, presses or pushes back the tongue E, releasing the pin C and causing it to fall through the link D and slot *a''* formed in the lower portion of the mouth *a*, when the cars will be coupled.

The rear face of the weighted part of the tongue or lever E forms an arc of a circle in such manner that the rear face will bear against the upper inner portion of the slot *a'* and mouth *a* of the draw-head A, so as to prevent the

coupling-link C entering too far into such mouth *a*, and thereby cause the weighted lever E swinging over and into such link C.

In order to adjust the link when cars of different heights are to be coupled it is only necessary to lift the bail B, and, consequently, the traversing rod or bolt *b*, forming the yoke with the shoes or slides *b'* to the required height along the vertical slots *a*², and then press the bail backward, as shown by Fig. 1, when the lower rounded portion of the vertical arm of the bail B will press against the shoes or slides *b'*, and such shoes *b'*, pressing against the flanges of the mouth *a* of the draw-head, will wedge the bail B securely in the desired position to support or receive the link or coupling.

When cars are to be coupled, and the bail B holding the link D of one draw-head, and the pin C held in the other, as shown by Fig. 1, or when the link and pin in two draw-heads are in any position for coupling, there is no need of an attendant to adjust the pin or release the link, as the link entering the draw-head presses against the tongue and releases the pin, and the jar of the two cars coming together will cause the bail B to recoil, releasing by this action the pressure of the vertical

arms of the bail against the shoes or slides *b'* and the flanges of the mouth, and cause such bail or yoke B to fall back into its normal position, when the coupling will be effected.

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

1. The draw-head A, the mouth *a* of which has vertical slots *a*² formed in its sides, and a horizontal groove, *a*¹, formed in its lower portion, in combination with bail B, shoes *b'*, transverse rod *b*, flanges *a*⁵, and a coupling-link, D, to operate substantially as shown and described.

2. The weighted lever or tongue E, having shoulder *e* for supporting the coupling-pin C, and pivoted to allow it to slide back and forth in the longitudinal inclined slot *a*⁴, in combination with the coupling-pin C, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of July, 1874.

CHARLES CALVIN WILSON.

Witnesses:

J. C. RICE,

JOHN D. SCHRIVER.