(No Model.) 2 Sheets—Sheet 1.

F. KERLIN.

CAR COUPLING.

No. 525,658. Patented Sept. 4, 1894.

Fig. 1

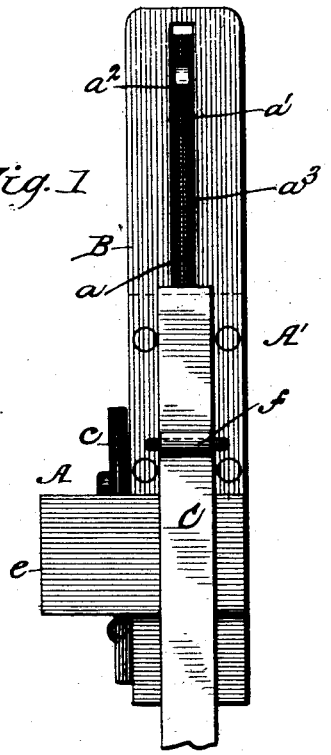


Fig. 2

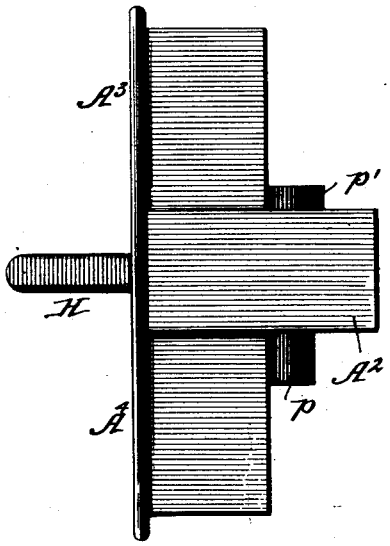


Fig. 3.

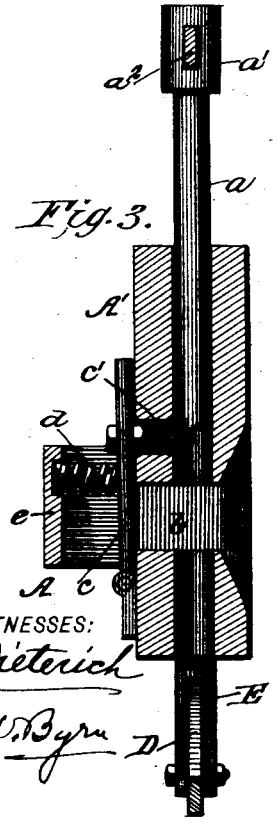
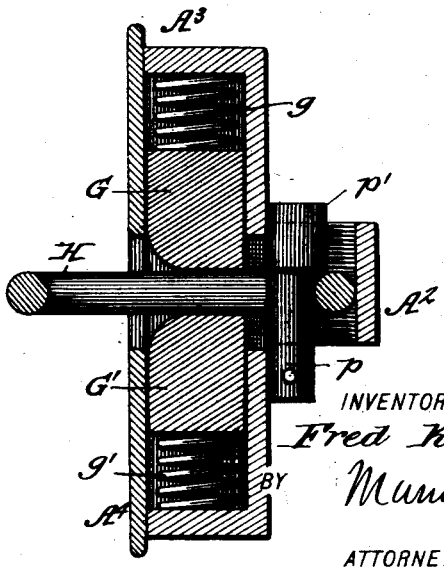


Fig. 5.



WITNESSES:

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(No Model.) 2 Sheets—Sheet 2.

F. KERLIN.

CAR COUPLING.

No. 525,658. Patented Sept. 4, 1894.

Fig. 4.

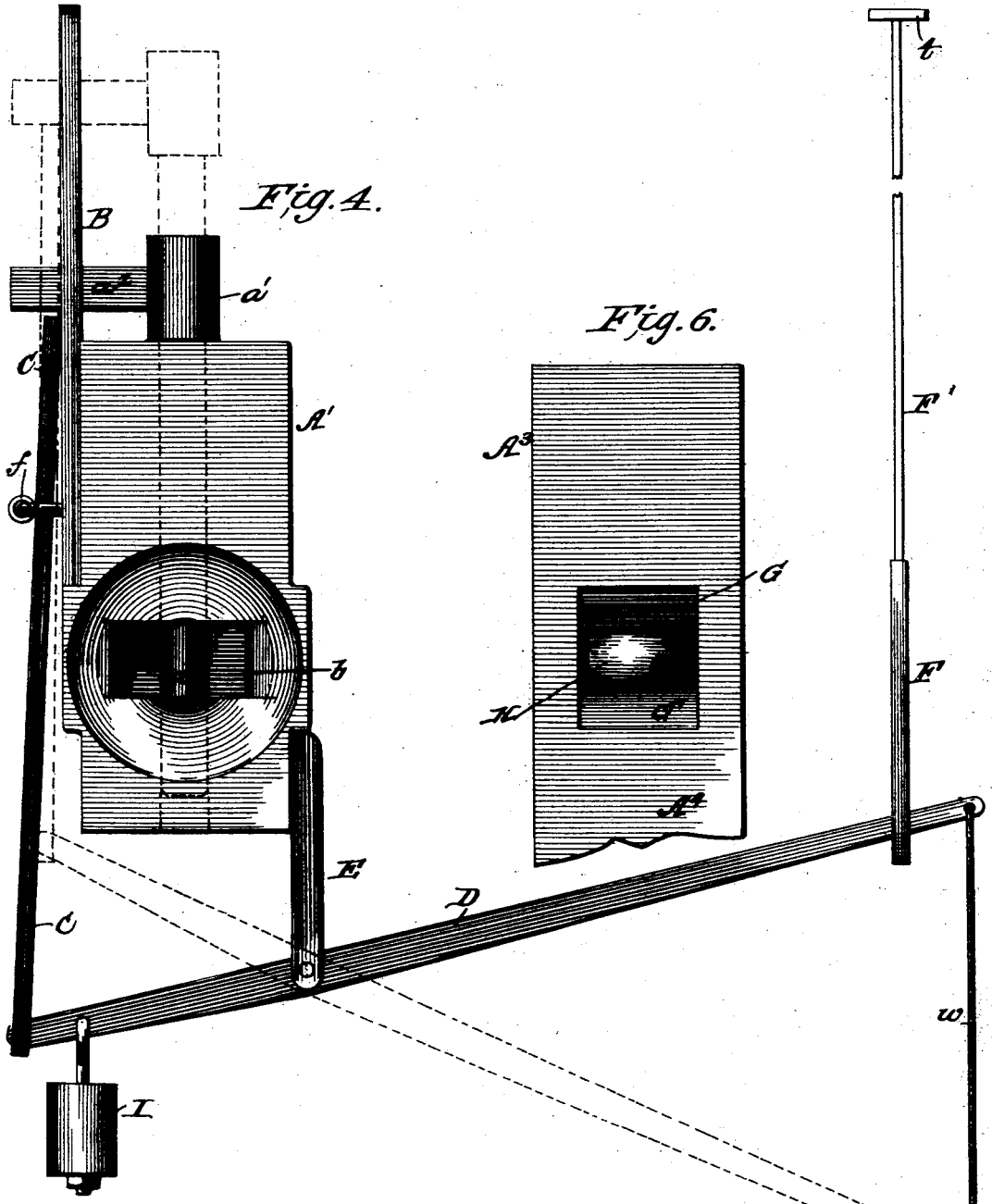

Fig. 6.

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FRED KERLIN, OF COLUMBIA, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 525,658, dated September 4, 1894.

Application filed April 27, 1894. Serial No. 509,179. (No model.)

To all whom it may concern:

Be it known that I, FRED KERLIN, of Columbia, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

The object of my invention is to provide an improved car coupling which shall couple cars automatically, and which may be operated to uncouple the cars either from the side or top of the same, or by the engineer.

It relates to that form of car coupling in which the coupling pin is held in elevated position by a spring seated pin which is removed from beneath the coupling pin by the entrance of the link, allowing the pin to drop through the link to couple the cars, and it consists in the peculiar construction and arrangement of devices operating upon the above general principle, which I will now proceed to describe with reference to the drawings, in which—

Figure 1 is a vertical side elevation of one half of the coupling, and Fig. 2 is a similar view of the other half, upon the other car. Fig. 3 is a vertical section, and Fig. 4 a face view of the parts shown in Fig. 1, and Fig. 5 is a vertical section, and Fig. 6 a face view of the parts shown in Fig. 2.

A is one of the draw bars which at its outer end is elongated vertically into a head A′ which is provided with a vertical pin hole, in which plays loosely a long coupling pin *a*. Through the lower portion of the draw-head is formed a link throat *b*, and just back of this vertical head of the draw bar, and hinged to it at the bottom, is a spring seated bar *c* arranged vertically in the middle line of the link throat, and directly in the path of the link. This bar *c* is pressed forwardly by a spiral spring *d*, which is interposed between it and a back plate *e*, and said bar has near its upper end a pin *c′* projecting at right angles and entering a hole in the vertical portion of the draw-head and passing into the pin hole where it serves the purpose of sustaining the pin in an elevated position, as in Fig. 3.

The outer face of the draw-head is hollowed out to form a tapering mouth to the throat to penetrate the entrance of the link. When such link enters the throat said link strikes the hinged bar *c* and, pushing it back against its spring, causes its pin *c′* to be forced back from beneath the coupling pin, thereby allowing the latter to fall through the link and couple the cars in an automatic manner.

The coupling pin *a* is formed with an enlarged head *a′* Fig. 4 from which projects at right angles an arm a^2 that passes through a vertical slot a^3 on a vertical guide standard B that is fixed to the side of the draw-head, and extends a distance above the same far enough to accommodate the highest position of the coupling pin when raised for automatic coupling.

To uncouple the cars I provide a lift bar C arranged parallel with and beside the standard B and retained in a guide or keeper *f*. The upper end of the bar C is adapted to bear against the right angular arm a^2 of the coupling pin and lift it out of the link. (See dotted lines Fig. 4.) To operate this lift bar its lower end is jointed to a horizontal lever D which is fulcrumed upon a hanger E depending from the draw-head. This lever extends out to the side of the car and may be worked directly by hand and it is also provided with a wire *w* passing over a pulley *w′* and running to the locomotive by which it may be operated by the engineer, and it is also loosely connected to a vertical bar F which runs through the platform of the car and is connected to a rod F′ that runs to the top of a box car and terminates in a treadle or foot piece *t* by which it may be depressed by the foot of the brakeman or conductor.

In each case the pulling down of the outer end of lever D raises the lift bar C and lifts the coupling pin *a* to uncouple the cars by lifting its arm a^2.

I is a counterbalance weight which serves to hold up the outer end of lever D and rods F F′.

I will now describe the other half of the coupling which is designed to be carried by the other car. This portion of the car coupling has a yoke shaped frame A^2, and a vertically elongated draw-head A^3 A^4 extending above and below the yoke shaped frame. The upper and lower portions of this elongated draw-head are chambered and provided with vertically sliding clamp blocks G G′, the upper one G of which is pressed downwardly

by a spiral spring g within the upper chamber, and the lower one G′ of which is pressed upwardly by a spiral spring g' within the lower chamber. These two spring pressed clamp blocks are designed to pinch and hold the link H between them, and cause it to be presented to the other draw-head in a definite horizontal position, so as to insure the proper entrance of the link into the link throat. To lock the link in the draw-head an ordinary coupling pin p is used with a head p' large enough to prevent it from falling through the hole in the link. This pin is provided at its lower end with a cross pin or split key to prevent it from being accidentally lifted out. When the draft strain is on this pin p bears against the rear side of the elongated draw bar.

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

The combination of the vertically elongated draw-head A′ having vertical coupling pin hole through it, and a horizontal pin hole in its rear upper portion, the spring seated bar c hinged in rear of the throat and extending up above the same and provided with a pin adapted to pass into the coupling pin hole, the coupling pin with projecting arm a^2, the slotted guide standard B, the vertical lift bar C, and operating lever D substantially as and for the purpose described.

FRED KERLIN.

Witnesses:
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