(No Model.)

J. J. JETER.

CAR COUPLING.

No. 402,085. Patented Apr. 23, 1889.

Fig. 1.

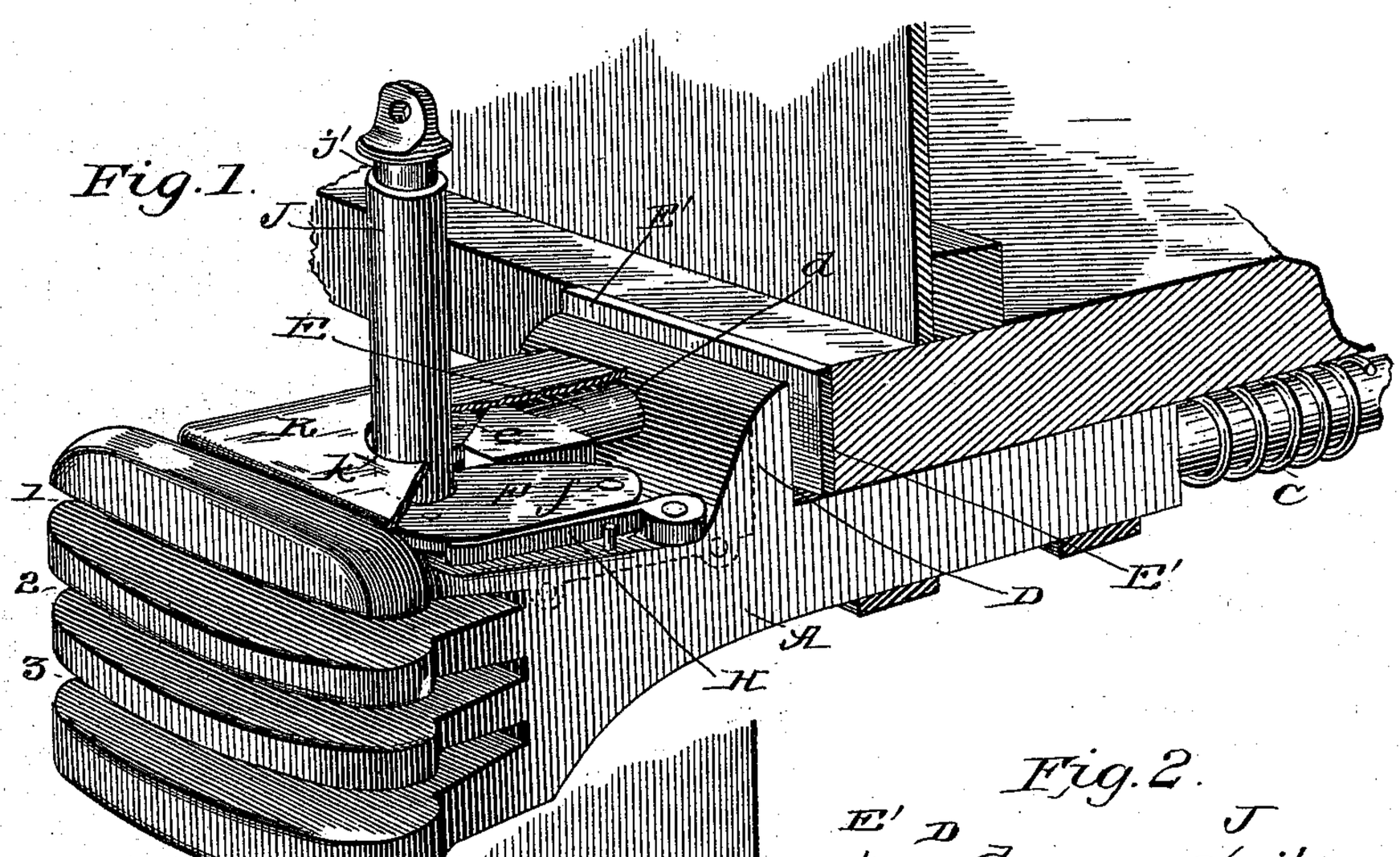


Fig. 2.

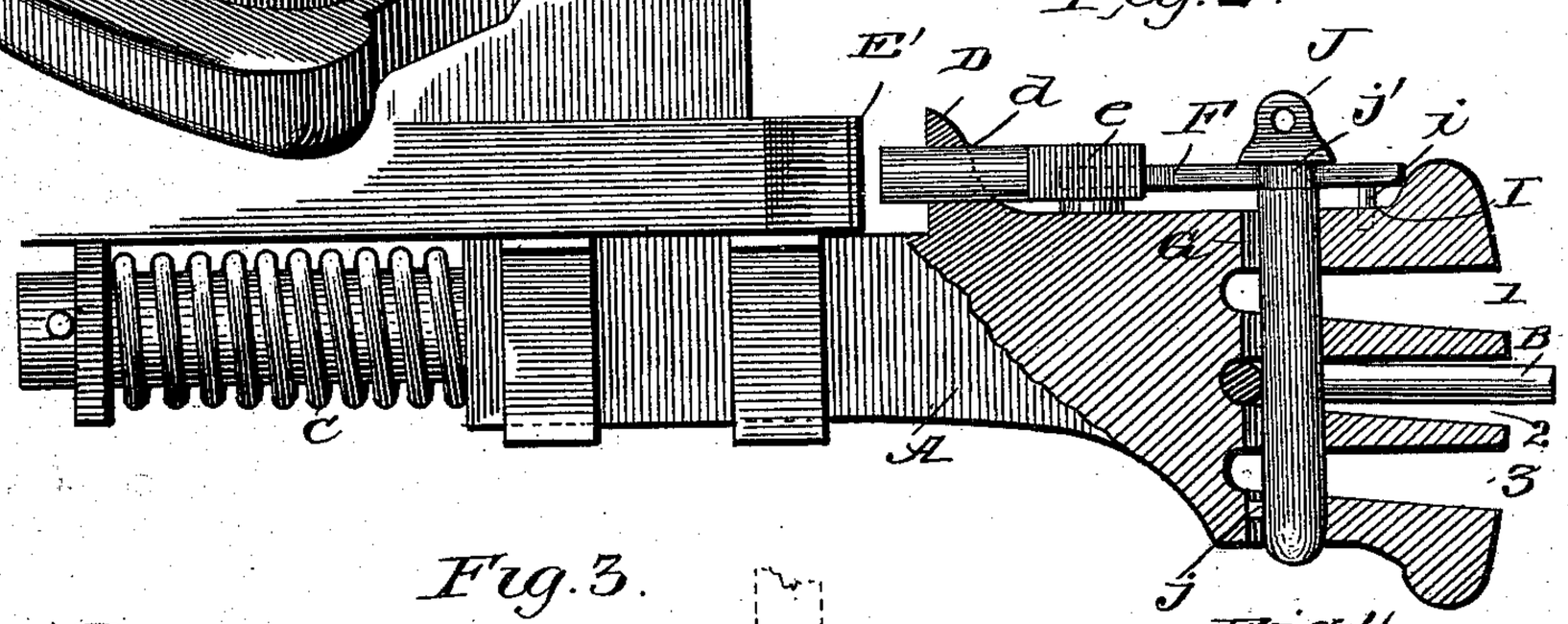


Fig. 3.

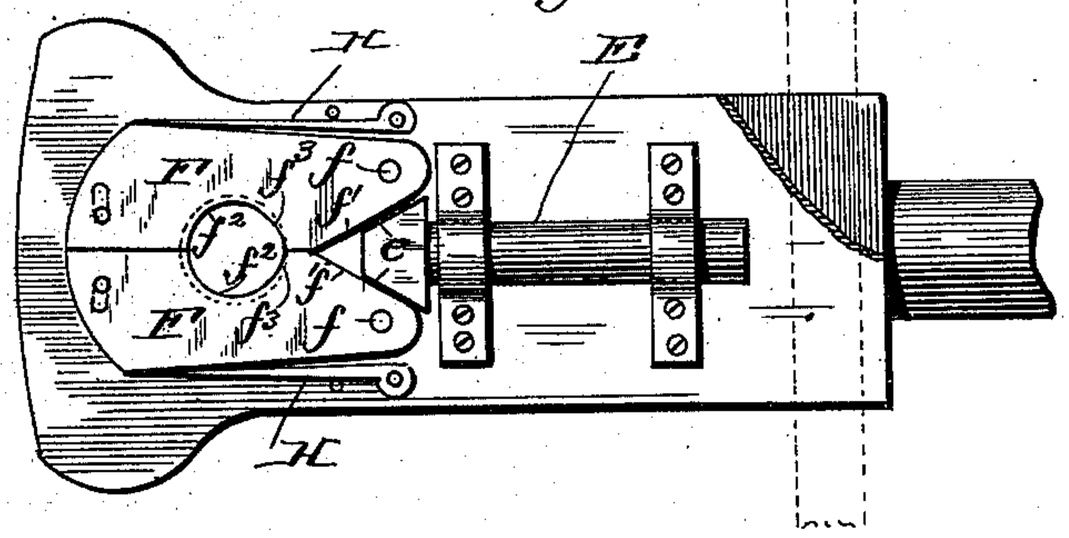
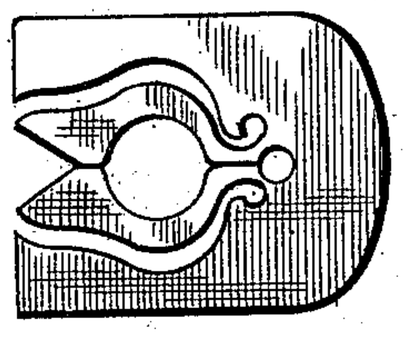


Fig. 4.



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JOHN JOSIAH JETER, OF CAMPBELLSVILLE, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 402,085, dated April 23, 1889.

Application filed November 3, 1888. Serial No. 289,944. (No model.)

To all whom it may concern:

Be it known that I, JOHN JOSIAH JETER, of Campbellsville, in the county of Taylor and State of Kentucky, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention is an improvement in car-couplings, and has for its object to provide a novel construction, whereby the cars may be automatically coupled, which improvement is applicable to the ordinary draw-heads as well as to the special construction of draw-head hereinafter described.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my invention, parts being broken away and others shown in section. Fig. 2 is a longitudinal section thereof. Fig. 3 shows the construction for application to the ordinary draw-heads, and Fig. 4 shows a somewhat different construction of the clamps.

The draw-head A is formed with the mortises 1, 2, and 3 in vertical series, so that the link B may be adjusted up or down, as desired; and the draw-head is in practice secured to the car, so that it may move longitudinally back when it strikes another draw-head, a spring, C, being arranged to receive the shock of impact. On this draw-head I provide a projecting rib or lug, D, which forms a stop to limit the rearward movement of the draw-head. This lug D also forms a guide for the plunger E, which operates in an opening, *d*, formed through said lug in the direction of length of the draw-head, the said plunger projecting in its normal position rearwardly beyond said lug. A wear-plate, E′, is provided on the front of the car in position to be engaged by the rear end of the plunger, when the draw-head and plunger are forced back by the meeting of the draw-heads. Such operation serves to force the plunger forward, as will be readily understood. At its forward end the plunger is adapted at *e* to operate and spread apart the clamp-sections F F, which are pivoted near their rear ends at *f*, are provided adjacent to said pivots on their inner edges with beveled surfaces *f′*, provided in their inner edges with similar recesses, f^2 f^2, which together form an opening registering with but slightly smaller than the pin-opening G, and springs H being arranged to press the sections F inward; but, while such springs are preferred, it manifestly would involve no departure from the broad principles of the invention to make such sections F of spring metal and fixed at *f* instead of pivoted, so they would in themselves possess the elasticity desired, as will be understood from Fig. 4. At their rear ends the recesses f^2 are slightly enlarged or flared at f^3, so that no part of the sections when opened will project over the pin-opening G.

Pins or studs *i* depend from the sections F, at or near their forward ends, and operate in grooves I formed in the draw-head, such construction forming a guide for directing the movement of the forward ends of the sections, as well as stops for limiting such movement.

The head *e* of plunger E is beveled correspondingly to the faces *f′* of the sections F, so that the beveled faces *f′* will operate, on the inward or closing movement of the sections, to force the plunger rearward to position for operation.

While the pin J may be of ordinary construction, it is preferably made, as shown, with a lug or projection, *j*, near its point, and with a groove, *j′*, near its head. It will be understood that the sections F, when closed, will grip the pin and hold it in any adjustment to which it may be set, so that the pin may be raised entirely clear of the link-mortise, or may be lowered to any desired position and held thereat, and when in its lowermost position the pin will be held from jarring out of position by the clamp-sections F entering the groove *j′*.

To elevate the outer end of the link, the lug *j* may be set to bear thereon and the pin be pressed down to properly elevate the outer end of the link to any desired degree, the sections F holding the pin and link in such position.

It will be understood that the ordinary pin might be used to tilt or elevate the link by pressing at its lower end thereon; but I prefer the construction as shown, because of the greater ease with which it may be applied and the greater certainty incident to its use.

To protect the plunger, clamp-sections, &c., from the weather and from meddlers, I pro-

vide a hood or cover, K, of sheet-iron or other suitable material, having an opening, *k*, in register with the pin-opening, through which opening *k* the pin may be manipulated, as desired.

To facilitate the manufacture and application of the improvement to the ordinary draw-heads, the clamp-sections and plunger may be mounted on a plate adapted for attachment to the ordinary draw-head, as will be understood from Fig. 3 of the drawings.

Having thus described my invention, what I claim as new is—

1. The combination of the draw-head, the clamp-sections having recesses f^2 and beveled surfaces f', the plunger movable longitudinally and having its head *e* beveled and arranged to engage beveled surfaces f' of the clamp-sections, substantially as set forth.

2. In a car-coupling, the combination of a longitudinally-movable draw-head, a plunger movable longitudinally independent of the draw-head, a bearing arranged for engagement by such plunger, whereby a rearward movement of the draw-head will effect a forward movement of the plunger, and the clamp-sections adapted to engage and hold the pin and arranged for actuation by the plunger, substantially as set forth.

3. In a car-coupling, the combination of the draw-head, the clamp-sections, and the plunger adapted to operate the clamp-sections, and a bearing by engagement with which the plunger is moved forward on the meeting of two draw-heads, substantially as set forth.

4. In a car-coupling, the combination of the draw-head movable longitudinally and having a lug, D, arranged to limit such movement, such lug D being provided with an opening, *d*, forming a guide for the plunger, the clamp-sections and the plunger movable in guide *d* and arranged to engage the clamp-sections, all substantially as and for the purposes specified.

5. The combination of the draw-head, the clamp-sections, the plunger, and the pins *i*, operating in grooves I, and adapted to form a guide whereby to direct the movement of the forward ends of the clamp-sections, substantially as set forth.

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