

No. 793,382.

PATENTED JUNE 27, 1905.

A. F. KUHLMANN.  
CAR COUPLING DEVICE.  
APPLICATION FILED OCT. 28, 1903.

Fig. 1.

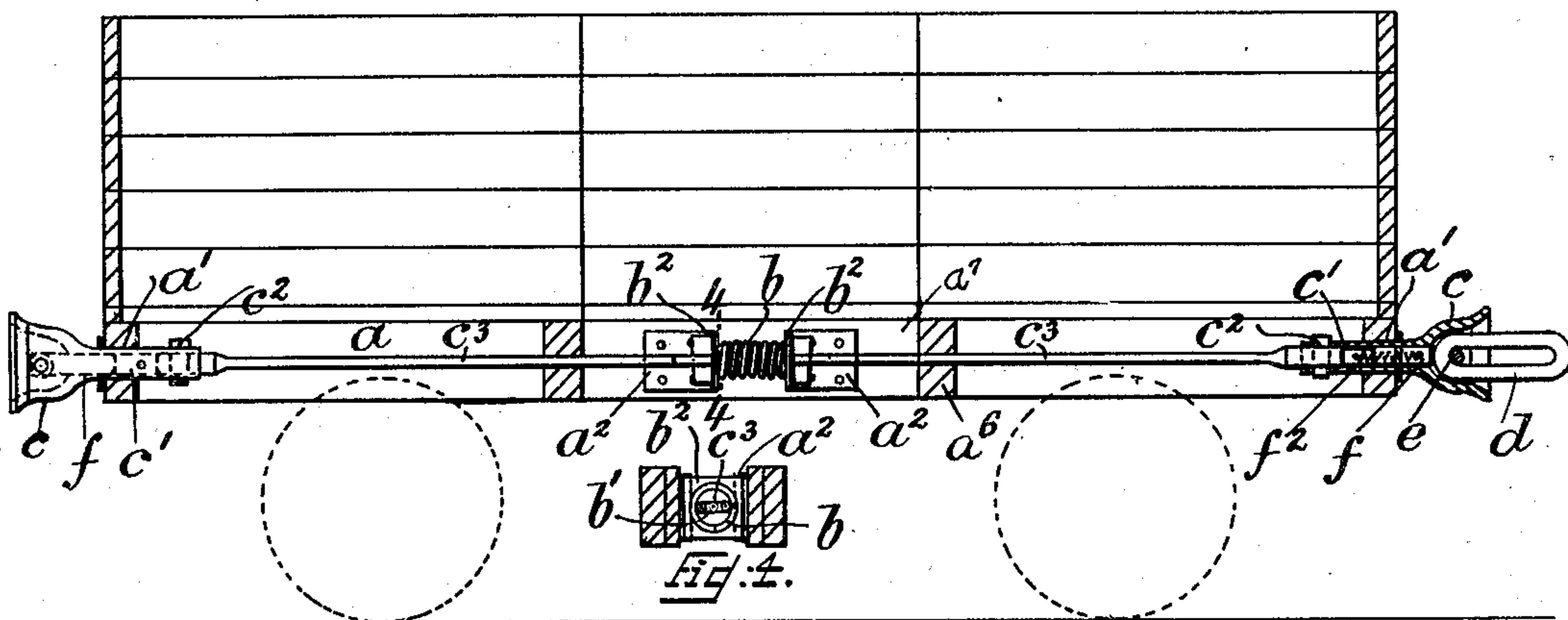
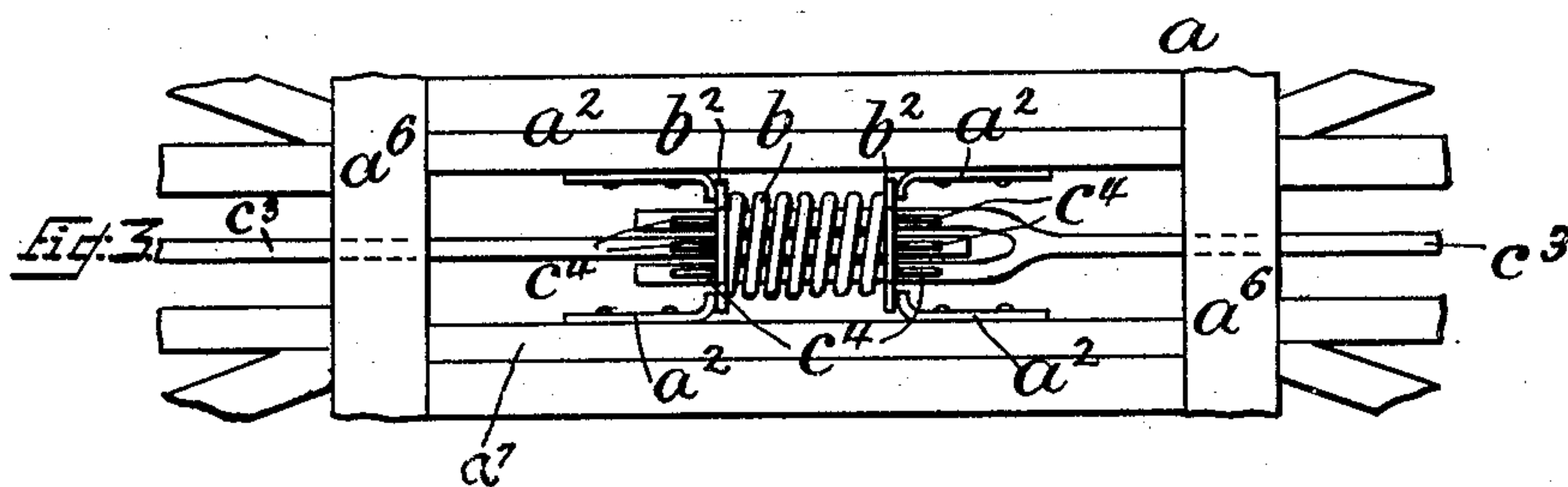
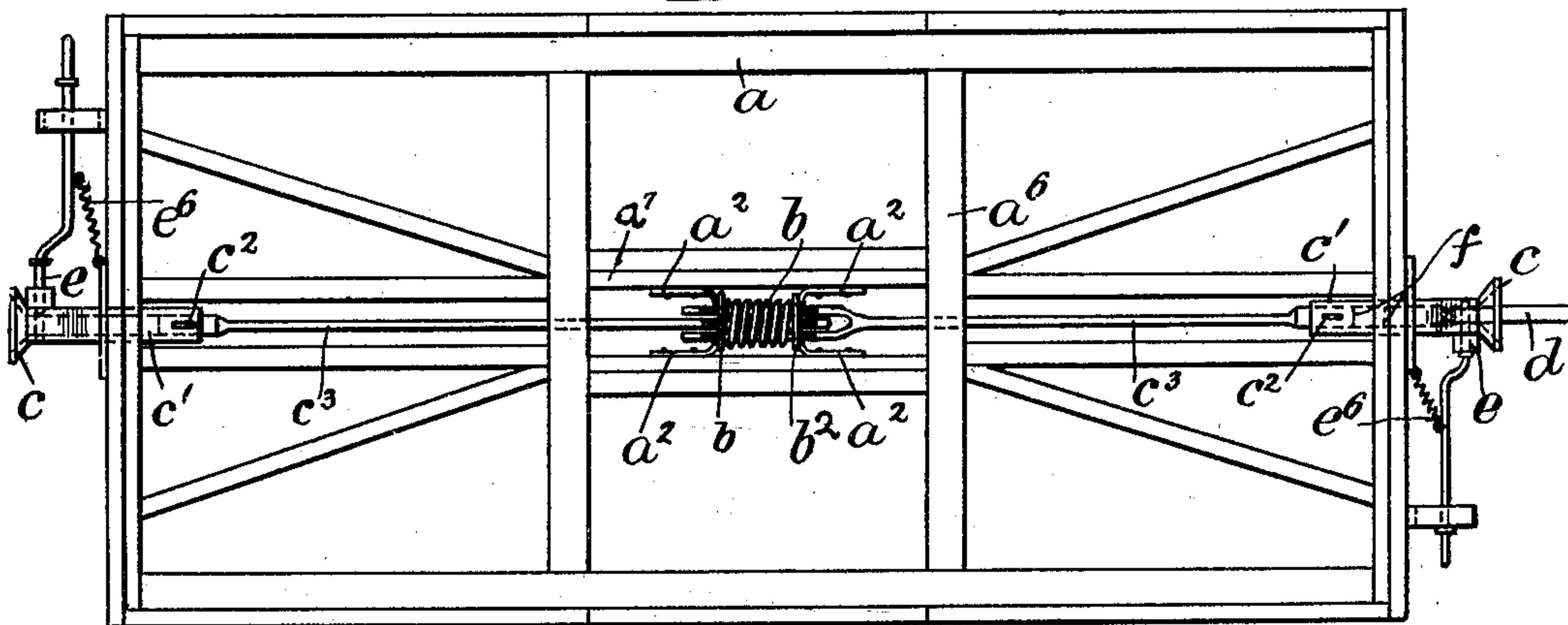


Fig. 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## CAR-COUPLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 793,382, dated June 27, 1905.

Application filed October 28, 1903. Serial No. 178,946.

*To all whom it may concern:*

Be it known that I, ADOLPH FRIEDERICH KUHLMANN, a citizen of the United States, and a resident of La Crosse, Wisconsin, have invented certain new and useful Improvements in Car-Coupling Devices, for which I have filed an application for British Patent No. 1,485, dated January 21, 1903; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to improvements in buffing and coupling equipments for railway cars and vehicles, and has reference to that class of such equipments in which each car is fitted at each end with a central member adapted both to buff and to couple with a similarly-fitted car, and has for its object to enable a single central spring to act for both said members in both buffing and drawing actions in lieu of the separate buffing and draw springs separately applied to each of said members as heretofore employed in such equipments.

In accordance with the invention the coupling and buffing members are connected to rods which extend longitudinally of the car and pass each other and at their passing parts are encircled by a spring and provided with means serving to enable each rod independently of the other rod to compress the spring from either end, according to its direction of movement in buffing or drawing, against resistances on the car-frame, so that the drawing and buffing actions of said connected members are subject to one and the same spring, and the action of each said member is independent of that of the other member.

On the accompanying drawings, Figure 1 represents in sectional elevation a car fitted with the improved equipment. Fig. 2 represents a plan of Fig. 1. Fig. 3 represents part of Fig. 2 on an enlarged scale; and Fig. 4 represents a sectional elevation on 4 4, Fig. 1.

*a* represents a car-frame fitted at each end with a buffing and coupling member *c'*, which is connected to a rod *c<sup>3</sup>*, which extends inward longitudinally of the car and is guided by a car-frame part *a<sup>6</sup>*. The rod ends pass

each other, preferably mid-length of the car, and at such part are encircled by a spring *b*, and externally of and adjacent to the spring ends are each provided with means serving to enable endwise movement of the rod in either direction to compress the spring against said resistances on the car-frame. Said means of compressing the spring consist of keys *c<sup>4</sup>*, passing through the rods and bearing-plates *b<sup>2</sup>*, interposed between the keys and the spring ends to distribute the pressure. Said resistances may consist of any convenient part of the car-frame or of stops *a<sup>2</sup>*, fixed to the car-frame part *a<sup>7</sup>* externally of and adjacent to the bearing-plates, and against which the latter abut and are pressed at the spring end opposite to that receiving the pressure, so as to enable the spring to offer the desired resilience to the buffing or drawing action of the rod *c<sup>3</sup>* in operation.

The buffing and coupling members *c'* represented are respectively adapted to work endwise in an opening *a'* through the car-frame end, are connected by a key *c<sup>2</sup>* to a rod *c<sup>3</sup>*, and adapted to receive a coupling-link *d*, which can be engaged by a bolt *e*, thrust by a spring *e<sup>6</sup>*, the bolt when withdrawn from engaging the link being held by a stop *f*, thrust by a spring *f<sup>2</sup>* in position for engaging a coupling-link when entered into the head by hand or by an opposing car having a link in its head and upon the entering link thrusting back the stop against the spring *f<sup>2</sup>*.

I claim—

In a buffing and coupling equipment for railway cars and vehicles, the combination, with a car-frame having at each end a centrally-arranged guided buffing and coupling member, of a plurality of guided rods connected one to each member and passing each other at their free ends, a spring encircling the passing ends of the rods, means fitted to the rods, respectively, externally of and adjacent to each end of the spring, serving to enable endwise movement of the rods, respectively, in either direction, to compress the spring, and resistances on the car-frame, externally of and adjacent to the bearing-plates,



serving to resist displacement of the spring  
when compressed in either direction by the  
operating-rod in the drawing or buffing ac-  
tion effected through the same, so as to enable  
5 the spring to offer the desired resilience to  
the buffing or drawing action of either rod,  
independently, as set forth.

In witness whereof I have hereunto set my  
hand in the presence of two witnesses.

ADOLPH FRIEDERICH KUHLMANN.

Witnesses:

JEAN GRUND,  
CARL GRUND.