

No. 755,622.

PATENTED MAR. 29, 1904.

W. G. CORY.

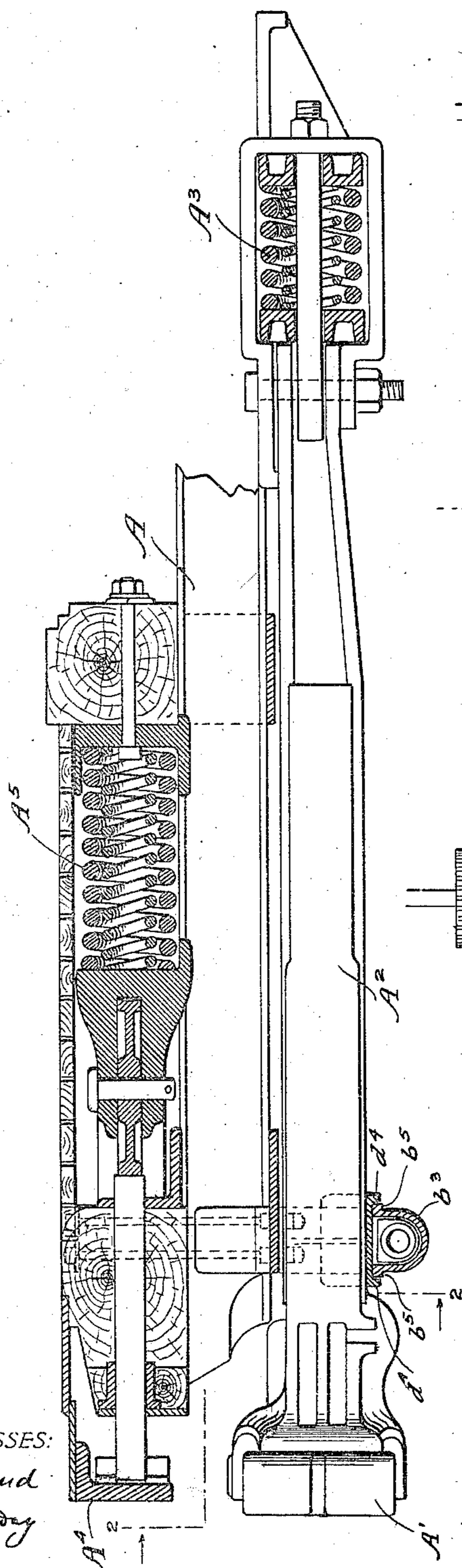
COUPLING STIRRUP AND CENTERING DEVICE FOR RAILWAY CARS.

APPLICATION FILED JUNE 22, 1903.

NO MODEL.

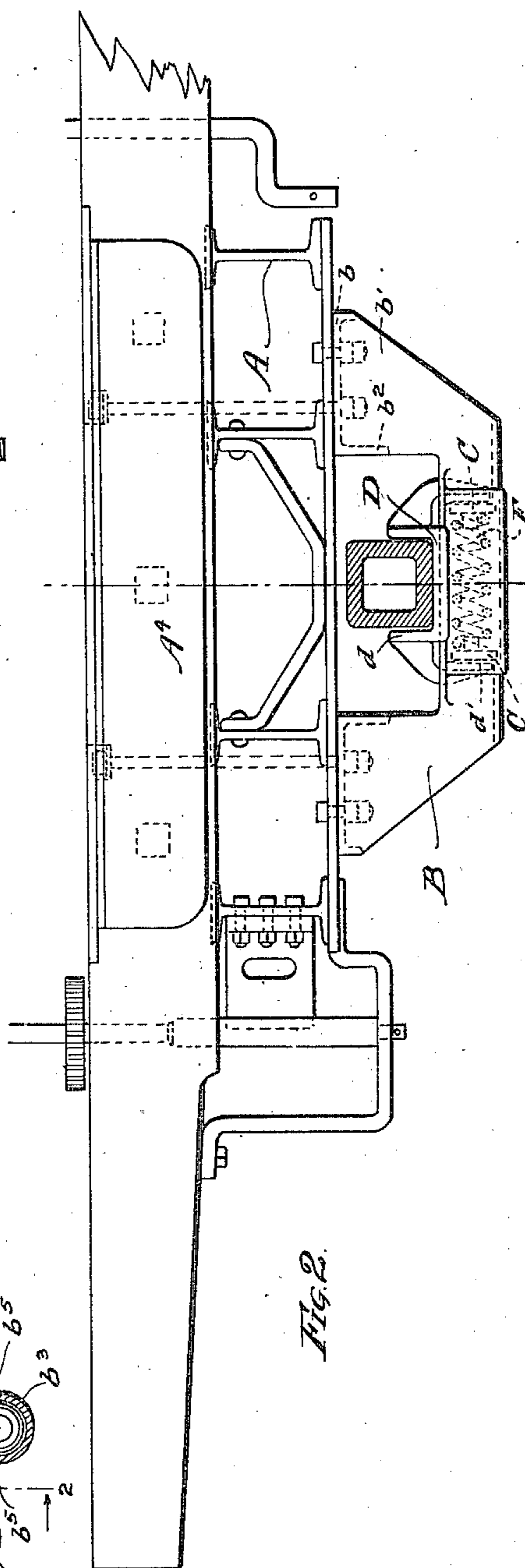
2 SHEETS—SHEET 1.

Fig. 1.



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Fig. 2.



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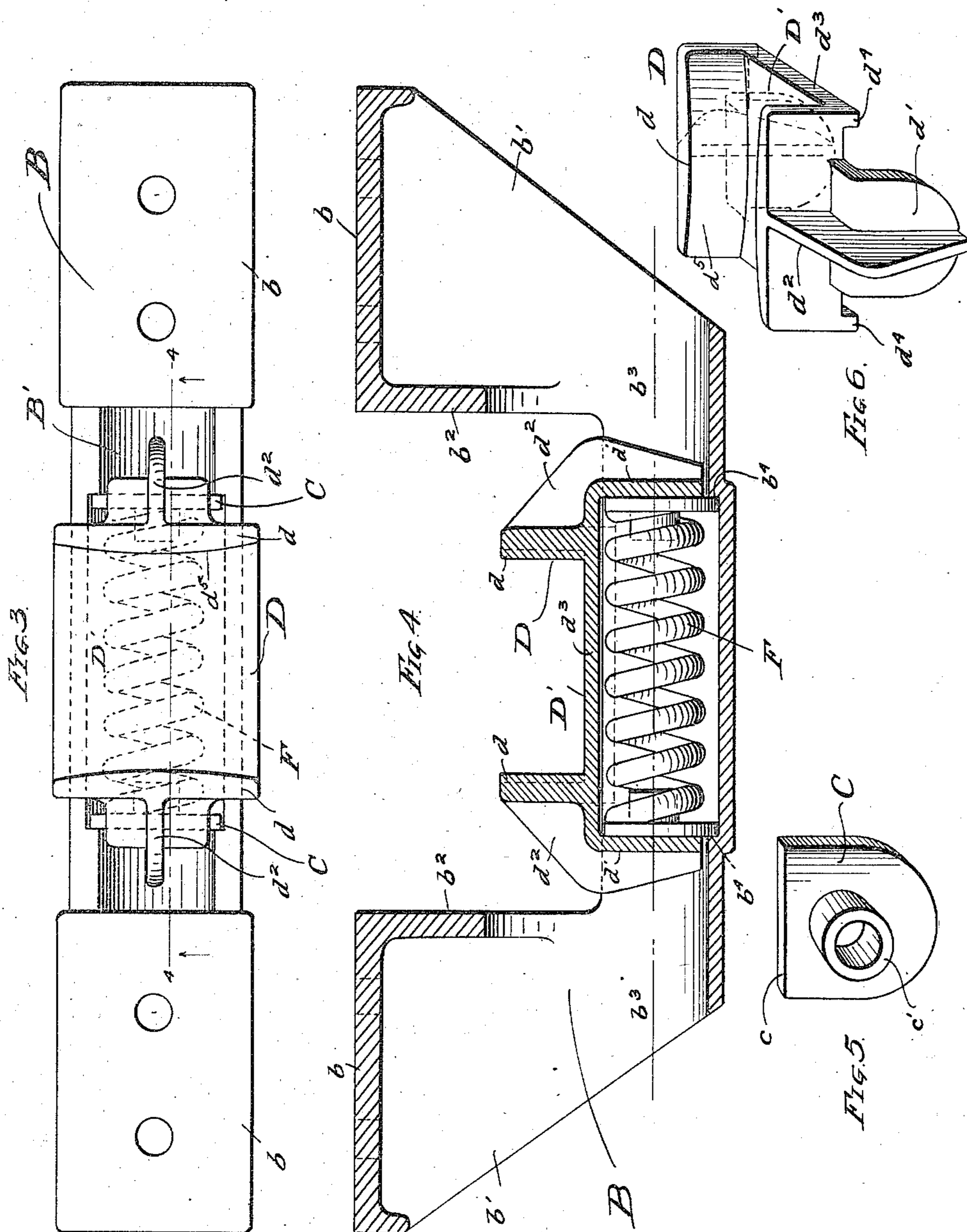
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F. B. Townsend  
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# UNITED STATES PATENT OFFICE.

WILBUR G. CORY, OF NEW HAVEN, CONNECTICUT.

## COUPLING STIRRUP AND CENTERING DEVICE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 755,622, dated March 29, 1904.

Application filed June 22, 1903. Serial No. 162,477. (No model.)

*To all whom it may concern:*

Be it known that I, WILBUR G. CORY, a citizen of the United States, residing in New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Coupler Stirrups and Centering Devices for Railway-Cars, of which the following is a specification.

My invention relates to improvements in centering devices and stirrups or carry-irons for railway-car couplers.

The object of my invention is to provide a car-coupler centering device and stirrup or carry-iron of a simple, efficient, strong, and durable construction which will properly support the coupler and permit it to have the necessary swinging or lateral movement in passing around curves and which will also hold the coupler normally in its proper central position in respect to the car.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists in a stirrup or carry-iron having a guide-channel, preferably U shape in cross-section, to receive and guide a coupler-centering device and a spring and followers therefor and provided with shoulders or stops for the followers to abut against, in connection or combination with a coupler-centering device having a seat on its upper side to receive the coupler draw-bar and end flanges to embrace and bear against the followers, a spring and a pair of followers for causing the coupler-centering device to return to its normal or central position, while permitting the coupler to swing laterally from side to side, as required. The followers are interposed between the stirrup or carry-iron and the coupler-centering device, the followers resting on the stirrup or carry-iron and the centering device being above the followers. The centering device is also provided with guides or flanges at its side edges, engaging the upper edges of the webs which form the channel or guide-grooves in the carry-iron or stirrup for the centering device. The carry-iron and the stirrup or centering

device are both preferably cast and of malleable iron.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown or described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a central vertical longitudinal section taken on line 1 1 of Fig. 2 and showing a passenger-car coupler provided with my invention. Fig. 2 is a front end view, partly in vertical section, on line 2 2 of Fig. 1. Fig. 3 is a plan view of my improved coupler stirrup or carry-iron and centering device. Fig. 4 is a section on line 4 4 of Fig. 3. Fig. 5 is a detail perspective view of one of the followers, and Fig. 6 is a detail perspective view of the coupler-centering device.

In the drawings, A represents a portion of a car-frame; A', the coupler; A<sup>2</sup>, the draw-bar; A<sup>3</sup>, the draft-rigging spring; A<sup>4</sup>, the buffer, and A<sup>5</sup> the buffer-spring, these parts being of any ordinary or customary construction.

B is my improved coupler stirrup or carry-iron, the same being preferably of malleable iron and having horizontal webs *b* for attachment to the car and depending webs or flanges *b'* *b''* to give room for the coupler draw-bar, and provided with an integral guide trough or channel B' to receive the coupler-centering device and permit it to reciprocate laterally of the car. The guide trough or channel B' of the centering device is open at the top and preferably U shape in cross-section and is formed by the curved side walls or webs *b''* of the carry-iron or stirrup. The carry-iron or stirrup is also provided with shoulders or stops *b''* for the followers C C of the centering device D to abut against. The centering device D is preferably also of malleable iron and has upright flanges *d* *d'*, forming a seat D' between them for the draw-bar of the coupler, and depending flanges or ends *d''* *d'''*, fitting within the guide trough or channel B' of the carry-iron to embrace and bear against the followers C C.

The centering device D also has strengthening webs or ribs  $d^2$ , uniting the upright flanges  $d$  and the depending flanges or ends  $d'$ .

F is the spring, one end bearing against each of the followers C C. The flat horizontal bed or web  $d^3$  of the centering device is provided with guides or flanges  $d^4$  at its edges, embracing the upper edges or faces  $b^5$  of the webs or walls  $b^3$  of the carry-iron or stirrup to additionally guide the centering device in its reciprocating movements on the carry-iron or stirrup. The followers C have straight upper ends or edges  $c$  to fit the under face of the bed  $d^3$  of the centering device. The followers C also have bosses or thimbles  $c'$  to fit in the ends of the spring F.

In operation when the coupler swings to either side the centering device D moves with it, thus compressing the spring F, one of the followers C being held stationary by engagement with the corresponding stop or shoulder  $b^4$  on the carry-iron, while the other follower moves with the centering device. The compressed spring will thus return the centering device and coupler to their central position as soon as the train again passes onto straight track, and the spring of the centering device will also normally hold the coupler in its central or proper position longitudinally of the car.

As in my invention the stirrup or carry-iron is itself provided with a channel or chamber longitudinally thereof to receive and guide the centering device and with stops or shoulders for the followers, in which channel or chamber the spring and followers are contained, and as the centering device itself covers this channel or chamber on the top and incloses and embraces at its ends the followers and spring the spring and followers are entirely inclosed and the whole device is at once composed of few parts and made of simple, strong, efficient, and durable construction, not liable to wear, break, or get out of repair, while at the same time operating most efficiently.

The upright flanges  $d$   $d$  are provided with curved inner faces  $d^5$  to better permit the centering device D to reciprocate longitudinally of the carry-iron B without cramping as the coupler and draw-bar swing laterally from side to side.

I claim—

1. A car-coupler supporting and centering device, comprising in combination a stirrup or carry-iron having an internal guide-trough channel or chamber formed therein to receive a centering device, spring and followers, and provided with shoulders or stops for the followers to abut against, of a centering device having upright flanges forming a seat for the coupler draw-bar, and depending ends or

flanges fitting within said guide trough or channel of the stirrup or carry-iron, and embracing the followers, a spring and a pair of followers inclosed and embraced between said stirrup or carry-iron and said centering device, substantially as specified.

2. The combination with a car-coupler stirrup or carry-iron having a channel or chamber open at the top to receive a spring and a pair of followers, and provided with stops or shoulders for the followers to abut against, of a coupler-centering device having a seat for the draw-bar of the coupler, and provided with depending ends or flanges fitting within said channel or chamber of the stirrup or carry-iron to embrace and bear against the followers, substantially as specified.

3. The combination with a coupler-stirrup or carry-iron, having a channel or chamber to receive a spring, and shoulders or stops for the followers of the spring to abut against, of a coupler-centering device having a seat for the draw-bar of the coupler and ends fitting within said channel or chamber of the stirrup or carry-iron and embracing and bearing against the followers, and guides or flanges fitting the upper edges or faces of the webs or walls of the channel or chamber in the stirrup or carry-iron, and a spring and followers, substantially as specified.

4. A malleable-iron car-coupler stirrup or carry-iron, having horizontal webs or flanges  $b$   $b$  for attachment to the car, and depending webs or flanges  $b'$   $b^2$  and  $b'$   $b^2$  forming a space for the draw-bar between them, substantially as specified.

5. A malleable-iron car-coupler stirrup or carry-iron, having horizontal webs or flanges  $b$   $b$  for attachment to the car, and depending webs or flanges  $b'$   $b^2$  and  $b'$   $b^2$  forming a space for the draw-bar between them and provided with a channel or chamber B' formed by curved walls  $b^3$   $b^3$ , substantially as specified.

6. A malleable-iron car-coupler stirrup or carry-iron, having horizontal webs or flanges  $b$   $b$  for attachment to the car, and depending webs or flanges  $b'$   $b^2$  and  $b'$   $b^2$  forming a space for the draw-bar between them and provided with a channel or chamber B' formed by curved walls  $b^3$   $b^3$  and furnished with shoulders or stops  $b^4$ , substantially as specified.

7. A car-coupler-centering device B, having upright flanges  $d$   $d$  forming a seat for the draw-bar of the coupler, and depending ends or flanges  $d'$   $d'$  to embrace and bear against the followers in combination with a carry-iron having an integral guide trough or channel within which said depending ends or flanges  $d'$   $d'$  fit, substantially as specified.

8. A car-coupler-centering device D, having upright flanges  $d$   $d$  forming a seat for the draw-bar of the coupler, and depending ends

or flanges  $d'$   $d'$  to embrace and bear against the followers, and ribs or webs  $d^2$   $d^2$  uniting said flanges  $d'$   $d'$  in combination with a carry-iron having an integral guide trough or channel within which said depending ends or flanges  $d'$   $d'$  fit, substantially as specified.

5 9. A car-coupler-centering device D, having upright flanges  $d'$   $d'$  forming a seat for the draw-bar of the coupler, and depending ends

or flanges  $d'$   $d'$  to embrace and bear against 10 the followers, ribs or webs  $d^2$   $d^2$  uniting said flanges  $d'$   $d'$ , and a horizontal bed  $d^3$  provided with guides or flanges  $d^4$ ,  $d^4$ , at its edges, substantially as specified.

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Witnesses:

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