

(No Model.)

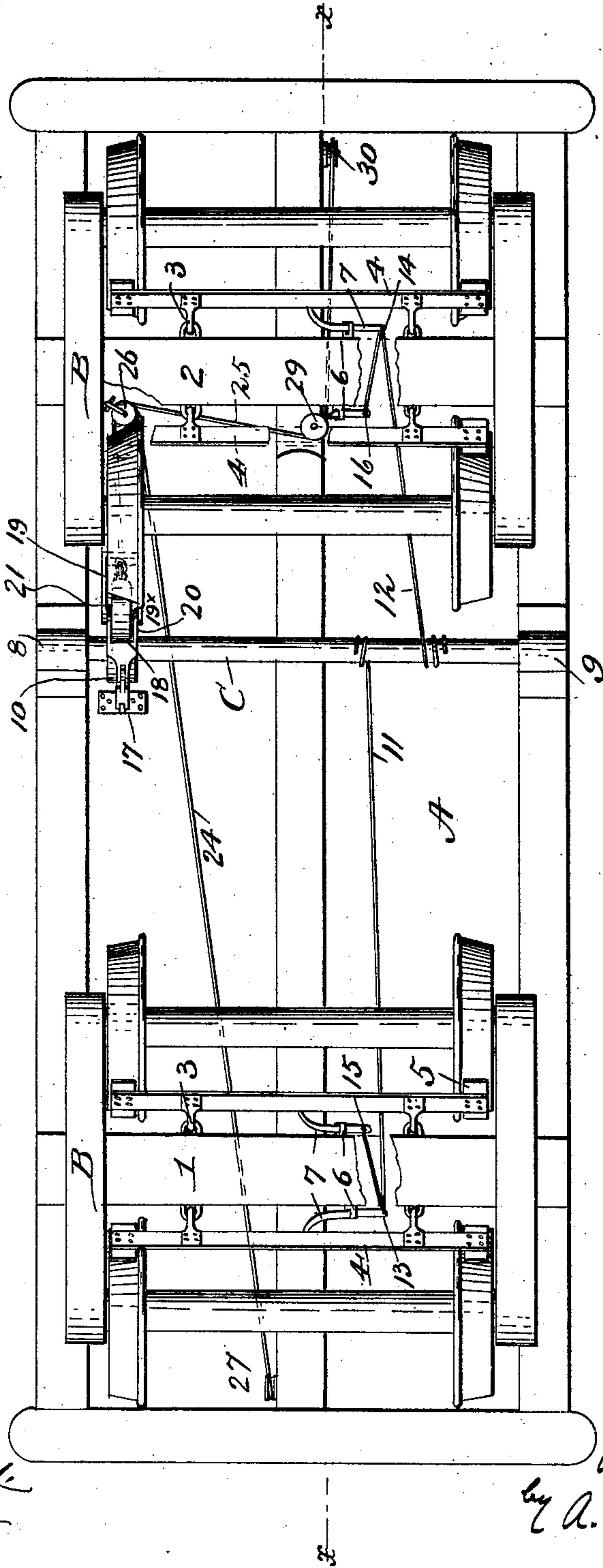
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A. H. BOSTLEY.  
CAR BRAKE.

No. 603,439.

Patented May 3, 1898.

Fig. 1.



Witnesses  
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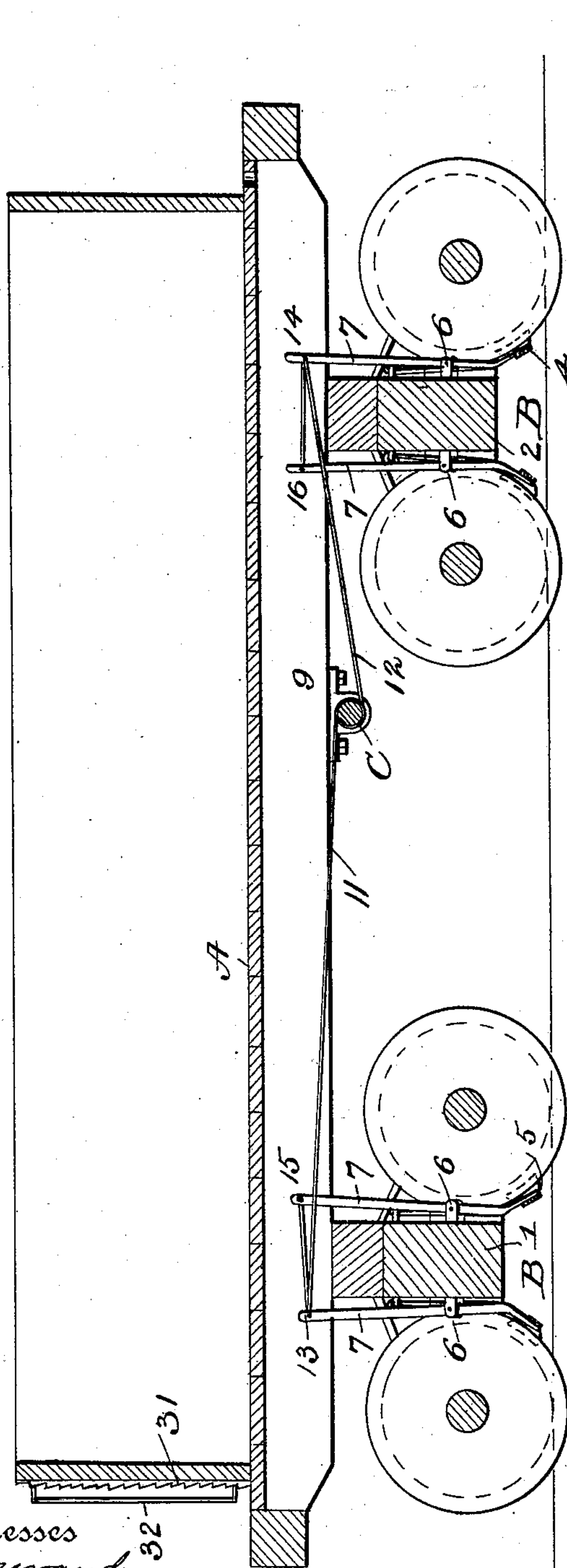
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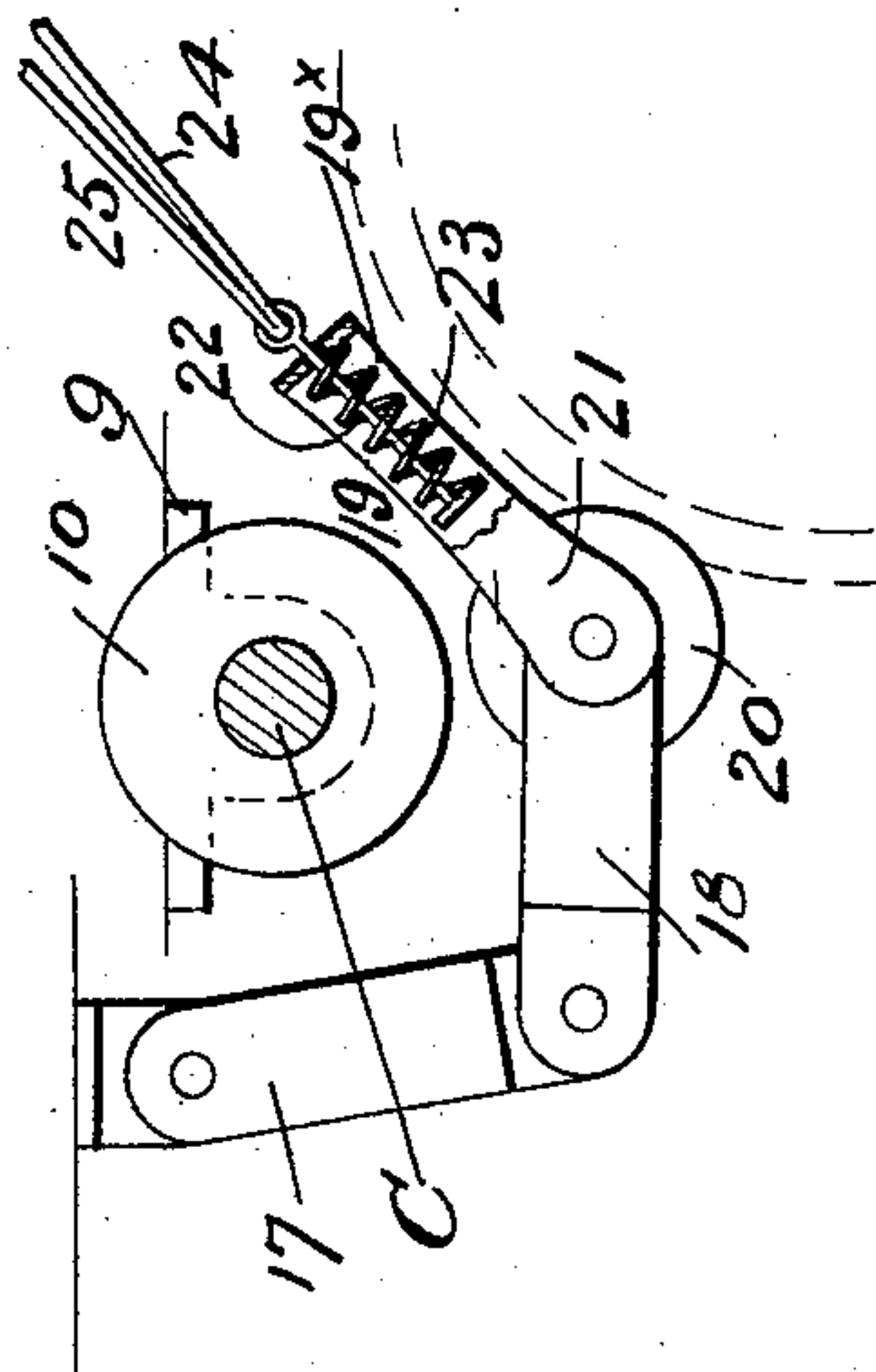
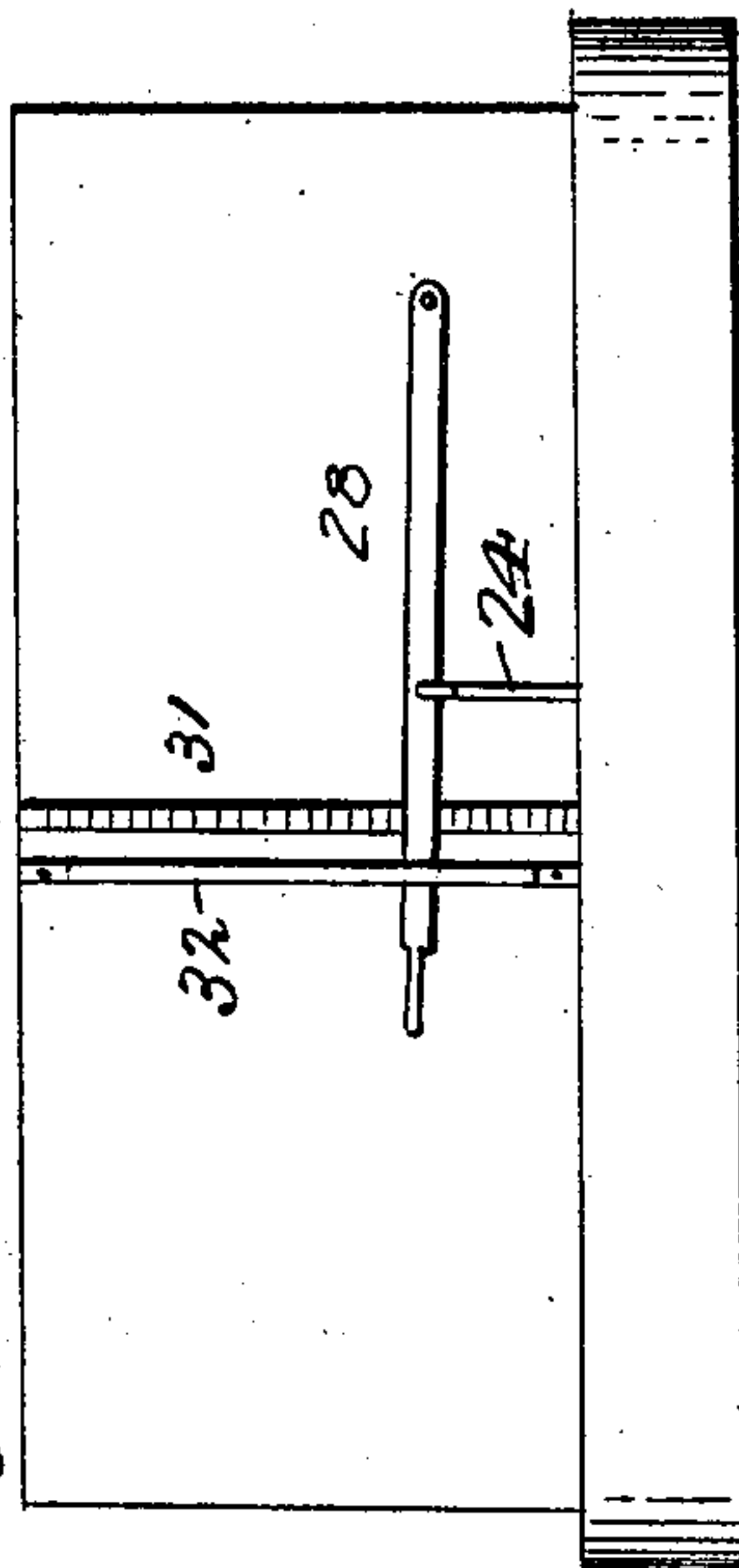
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# UNITED STATES PATENT OFFICE.

AUGUSTUS H. BOSTLEY, OF SOUTH WILLIAMSPORT, PENNSYLVANIA.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 603,439, dated May 3, 1898.

Application filed December 28, 1897. Serial No. 663,957. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTUS H. BOSTLEY, a citizen of the United States of America, residing in South Williamsport, in the county of Lycoming, in the State of Pennsylvania, have invented a new and useful Car-Brake, of which the following is a specification.

My invention has relation to improvements in automatic car-brakes; and the object is to provide a simple and efficient mechanism to effect the purpose, as will be hereinafter more fully described, and particularly pointed out in the claim.

I attain the purposes and objects of the invention by the means or mechanisms and constructions illustrated in the accompanying drawings, wherein—

Figure 1 is a bottom plan of the mechanism, certain portions of the trucks being shown in dotted lines in order that the lever connections may be seen. Fig. 2 is a detail side view of the brake-rollers, the car-wheel being shown in dotted lines. Fig. 3 is a longitudinal section on the line  $x x$  of Fig. 1. Fig. 4 is a detail of one of the brake-levers on the end of the car.

A designates the bottom of the car-body, of the usual construction, and B B designate the trucks, also of the usual and approved build. To the cross-beams 1 2 of each truck are pivotally connected hangers 3, carrying on their lower ends the brake-bars 4, to the outer ends of which are suitably secured the brake-shoes 5. These elements may be of such make or constructions as to adapt them to hang by gravity away from the tread-faces of the wheels when not engaging therewith and to adjust themselves to the tread-faces of the wheels when drawn into contact therewith to impede or stop the progress of the car. To the opposite faces of each cross-timber of the truck are secured suitable supporting-lugs 6, in which are fulcrumed the brake-levers 7, connected to the brake-shaft by any proper means and as hereinafter specified.

Transversely journaled across the bottom of the car, as in bearing-boxes 8 9, is a brake-shaft C, on which is fixedly mounted a steel friction roller or pulley 10, and to this shaft C are connected the brake cables or chains 11 12, running from the shaft C through the end of one of the brake-levers, as at 13 14,

and thence carried to and connected with the other brake-levers, as at 15 16. It will be perceived from the foregoing description of the brake connections to the shaft C that when the shaft C is rotated the brake-cables will be wound on the shaft and the brake-shoes consequently be brought forcibly into contact with the wheels of the trucks.

To impart rotation to the shaft C, the following-described mechanism is provided: To the timber or a suitable support fixed to the car is pivotally hung an arm 17, in line with the tread-face of the wheels of the truck, and to the arm 17 is pivotally connected an arm or hanger 18, in which is journaled a friction-roller 20, which normally sets or rests idle between the surface of the tread-face of the wheel of the truck and the face of the roller 10. The hangers or arms 17 18 are connected at their respective joints so as to have a limited lateral play or movement, so that when the wheel moves laterally, as when moving about a curve in the track, the roller may be carried with it without undue strain or damage to the hangers, and in order that the roller 10 may always cover the face of the roller 20 it is made broader than the latter. To hold and carry the roller 20 in operative relation to the truck-wheel and roller 10, a stirrup 21 is hung on the extending journal of the roller 20 or similarly hung to the extensions 19 19<sup>x</sup>, and in the bow of the stirrup is slidably disposed a pull-bolt 22, provided with a head on its lower end and a buffer-spring 23 on its stem, one end of which bears against the inner face of the bow of the stirrup and the other against the head of the bolt, as indicated in the drawings. To the eye of the pull-bolt 22 are secured the ends of the cables 24 25, which are carried in alignment with the wheel through a grooved sheave 26, secured to the bottom of the car or other suitable support, from whence the cable 24 is carried to a sheave or pulley 27 and about the same, and thence up through an aperture in the platform and connected to a lever 28, fulcrumed on the end of the car, and the cable 25 is carried about a sheave or pulley 29 on the car-timber, then around a sheave 30, and then up through the platform and connected to a lever identical to the lever 28. The levers 28 are held in set position by a rack



31, provided with a keeper 32, as shown in Fig. 4. A suitable guide-piece may be interposed between the stirrup and the adjacent pulley to keep the parts in direct alinement  
5 during operation.

It will now be perceived from the foregoing description, taken in connection with the drawings, that when the brakes are to be applied one of the levers 28 is moved to draw  
10 the roller 20 into engagement with the roller 10 and the tread of the wheel, resulting in rotating the brake-shaft, which winds up the brake-cables and draws the brakes into contact with the wheels.

15 It is apparent that the distance of the pulley 10 from the truck-wheel will be varied by the weight imposed on the car, being greater when the car is unloaded and the springs not depressed, so that a friction-roller hung on a  
20 single arm would be inoperative in some in-

stances; but by hanging the roller 20 in a jointed arm, as shown, it is operative on all occasions and irrespective of the distance between the roller 10 and the truck-wheel.

What I claim is—

25 In a car-brake, the combination with the car-wheel and its tread-face, and the shaft journaled under the car, and provided with a friction-pulley and the brakes connected to said shaft, of the jointed arms 17, 18, the  
30 friction-roller 20, and means to move the friction-roller into contact with the friction-pulley and the car-wheel.

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

AUGUSTUS H. BOSTLEY.

Attest:

C. G. HEYLMUN,  
NATHANIEL CARUSI.