

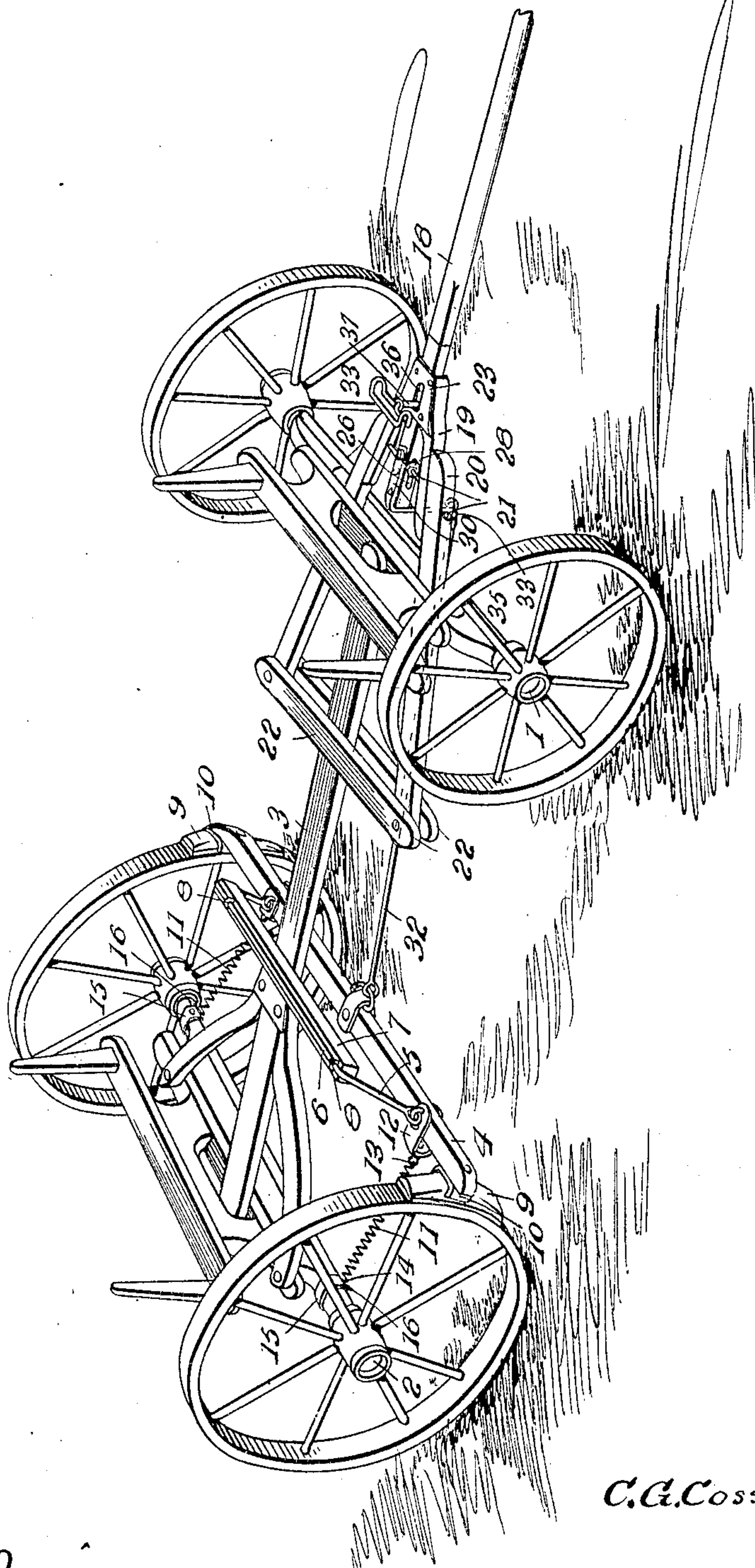
No. 843,134.

PATENTED FEB. 5, 1907.

C. G. COSSAIRT.
AUTOMATIC BRAKE.
APPLICATION FILED MAR. 5, 1906.

2 SHEETS—SHEET 1.

FIG. 1.



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Witnesses

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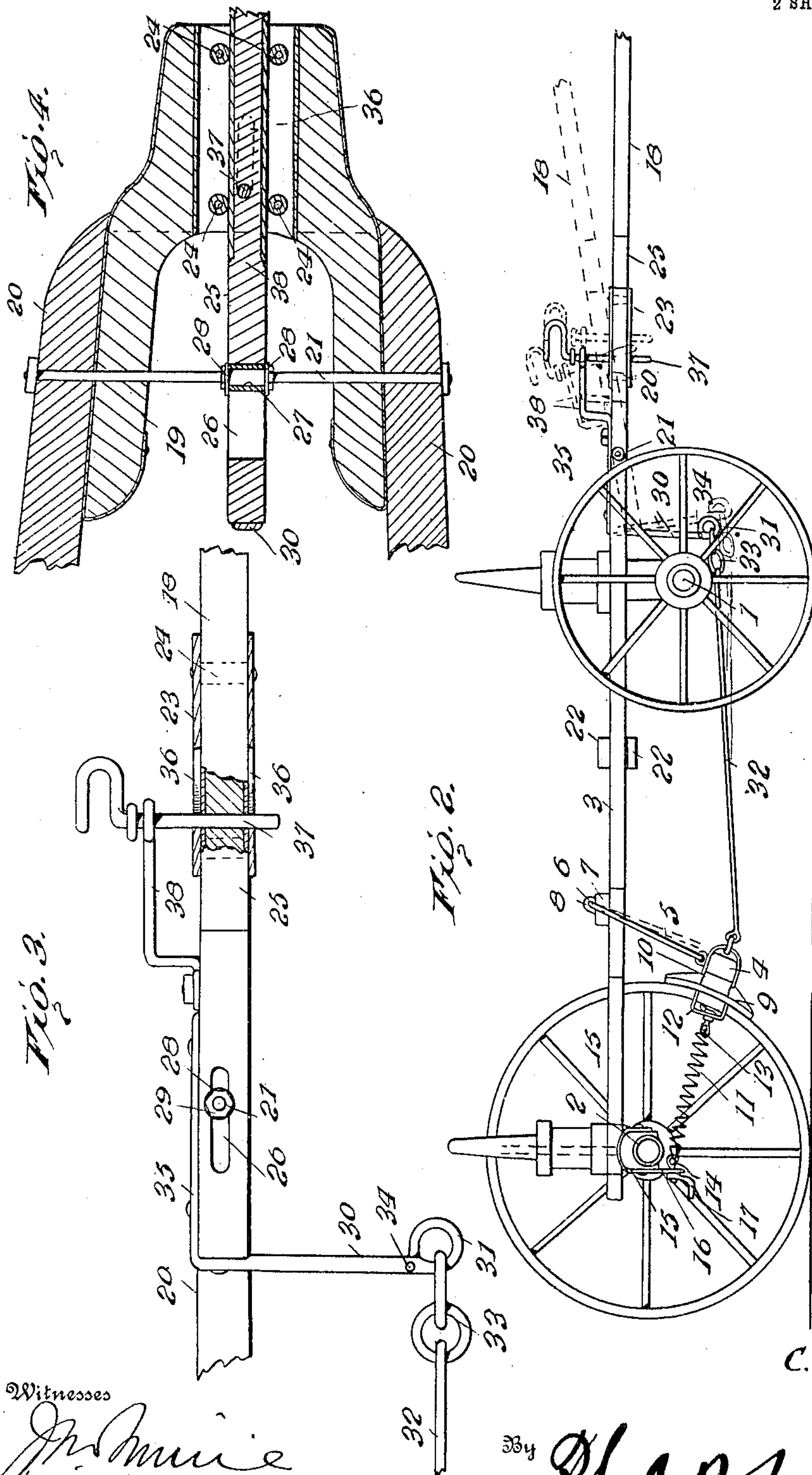
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES G. COSSAIRT, OF PARADISE, KANSAS.

AUTOMATIC BRAKE.

No. 843,134.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed March 5, 1906. Serial No. 304,354.

To all whom it may concern:

Be it known that I, CHARLES G. COSSAIRT, a citizen of the United States, residing at Paradise, in the county of Russell and State of Kansas, have invented certain new and useful Improvements in Brakes, of which the following is a specification.

This invention relates to an improved vehicle-brake, and has for its object to provide an improved device of this character which will be automatically thrown into operation when the pull upon the tongue is released.

A further object of the invention is to so construct the mechanism that it can be readily adjusted to suit the requirements of the various types of running-gear to which it may be attached and also the various kinds of loads which may be hauled.

To this end the invention consists, essentially, of a brake-beam which is suspended from the running-gear, spring members which normally hold the shoes in engagement with the wheels and which are so mounted that the tension therein can be easily regulated, a peculiarly-constructed tongue which is slidably mounted between the tongue-hounds, and a connecting-rod joining the brake-beam and tongue, whereby the shoe will be thrown out of engagement with the wheels when any pull is exerted upon the tongue.

For a full description of the invention and the merits thereof, and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of a running-gear equipped with the improved form of brake. Fig. 2 is a side elevation of the same. Fig. 3 is a partial sectional view of the rear portion of the tongue. Fig. 4 is a horizontal sectional view showing the connection between the tongue and the wagon-hounds.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The brake is shown as applied to a running-gear of any conventional type, in which the numerals 1 and 2 designate the front and rear axles, respectively, which are joined by the coupling or reach 3. The brake-beam 4 is suspended from the running-gear by means of arms 5, which have their upper ends connected to a transverse rod 6, which is pivot-

ally mounted upon the upper face of the transverse beam 7. This beam 7 is secured to the reach 3 at approximately the junction of the hind hounds therewith, and the rod 6 is shown as being held in position thereon by means of staples or similar securing means 8. A brake-shoe 9 is secured to each end of the brake-beam 4, preferably by means of the metal clips 10, which have their ends bent outwardly to form arms which fit upon opposite sides of the shoes 9 and engage with recesses therein to hold the shoes in position. Spring members 11 are employed to hold the shoes 9 normally in engagement with the wheels, and these springs have one end connected to the brake-beam 4, while the opposite end is connected to the rear axle.

Metal pieces 12 are employed to secure the spring members 11 to the brake-beam, and these metal pieces 12 are formed with arms which fit upon opposite sides of and are secured to the brake-beam and are also provided with eyes 13 for direct connection to the springs. The rear ends of the springs 11 are adjustably connected to hook members 14, which hook around the rear axle and are formed with downwardly-extending arms 15, which are perforated for the reception of the eyebolts 16. The nuts upon these eyebolts are provided with finger pieces or cranks 17, by means of which the tension in the springs 11 can be readily adjusted in accordance with the condition under which the brake is being employed.

The tongue 18 is slidably mounted between the tongue-hounds 19, which are pivotally connected to the wagon-hounds 20 by means of the tongue-bolt 21 in the customary manner. The hounds 20 are rigidly secured to the front axle 1 at an intermediate point and have their rear ends connected by transverse members 22, which are secured to opposite sides thereof and are located upon opposite sides of the reach 3. The forward portion of the tongue-hounds 19 are rigidly connected by means of metal plates 23, which fit upon opposite sides thereof, and a number of friction-rollers 24 are mounted between the plates 23 and are located upon opposite sides of the tongue 18, so as to enable the latter member to slide freely. It will be observed that the portion of the tongue 18 fitting between the plates 23 and coming into contact with the friction-rollers 24 is provided with a protective covering 25, of sheet metal or other

suitable material. The rear end of the tongue 18 is formed with a transverse slot 26, through which the tongue-bolt 21 is passed, and it will be observed that the portion of the tongue-bolt located within the slot is slightly enlarged and is provided with a friction-roller 27. Washers 28 are placed upon the tongue-bolt 21 so as to fit upon opposite sides of the tongue and are held in position by means of the nuts 29. An arm 30 extends downwardly from the rear end of the tongue 18 and is provided at its lower end with a hook 31 for connection with the forward end of the connecting-rod 32, by means of which the tongue is joined to the brake-beam. In order to obtain an adjustable connection between the rod 32 and the hook 31, the forward end of the rod 32 is preferably provided with a chain 33, any length of which may be connected with the hook, as may be desired. A transverse pin 34 may be passed through the shank of the hook 31, if desired, and this pin serves to prevent the chain 33 from slipping upon the arm 30. The upper end of the arm 30 is connected to or made integral with a plate 35, which is rigidly secured in position upon the tongue.

Each of the plates 23 is formed with a longitudinal slot 36, through which the ends of the pin 37 project, the said pin passing through the tongue and engaging with the ends of the slots to limit the sliding movement of the tongue within the tongue-hounds. The upper end of the pin 37 may serve as a connecting means for the whiffletree and is reinforced by means of the hammer-strap 38.

In the operation of the brake it will be apparent that any forward pull of the draft-animals will pull the tongue 18 forwardly until the pin 37 engages with the ends of the slot 36, and this pull will be communicated through the connecting-rod 32 in such a manner as to counteract the effect of the springs 11 and disengage the shoes 9 from the vehicle-wheels. When the pull upon the tongue is released, the same will slip backwardly until the pin 37 bears against the rear ends of the slots 36, and this action will permit the springs 11 to pull the brake-shoes into operative position. Owing to the fact

that the forward end of the connecting-rod 32 is secured to a downwardly-projecting arm 30, it will be apparent that any upward movement of the tongue 18 will tend to pull upon the rod 32 and throw the brake out of operative position. In this manner the brake is automatically released when the vehicle is being backed. An important feature of this invention also resides in the fact that both the connecting-rod 32 and the spring member 11 are adjustable, as has been heretofore described, so that the length of the former and the tension of the latter can be varied according to the type of running-gear employed or the load being operated upon.

Having thus described the invention, what is claimed as new is—

1. The combination of a running-gear, brake-shoes mounted upon the running-gear, means for holding the brake-shoes normally in engagement with the wheels, a slidably-mounted tongue, an arm projecting downwardly from the rear end of the tongue and rigid therewith, and connecting means between the arm and brake-shoes whereby the latter will be thrown out of engagement with the wheels when the tongue is swung upwardly or any forward pull is exerted thereon.

2. The combination of a running-gear, brake-shoes mounted upon the running-gear, means for holding the brake-shoes normally in engagement with the wheels, a pair of wagon-hounds, plates connecting the wagon-hounds and fitting upon opposite sides of the same, a tongue slidably mounted between the plates, roller-bearings mounted between the plates and located upon opposite sides of the tongue, an arm pendent from the rear end of the tongue and rigid therewith, and connecting means between the arm and the brake-shoes whereby the latter are thrown out of engagement with the wheels when the tongue is swung upwardly or any forward pull is exerted thereon.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES G. COSSAIRT. [L. s.]

Witnesses:

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