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2 SHEETS—SHEET 1.



J. R. Gomez
W. E. Trassler

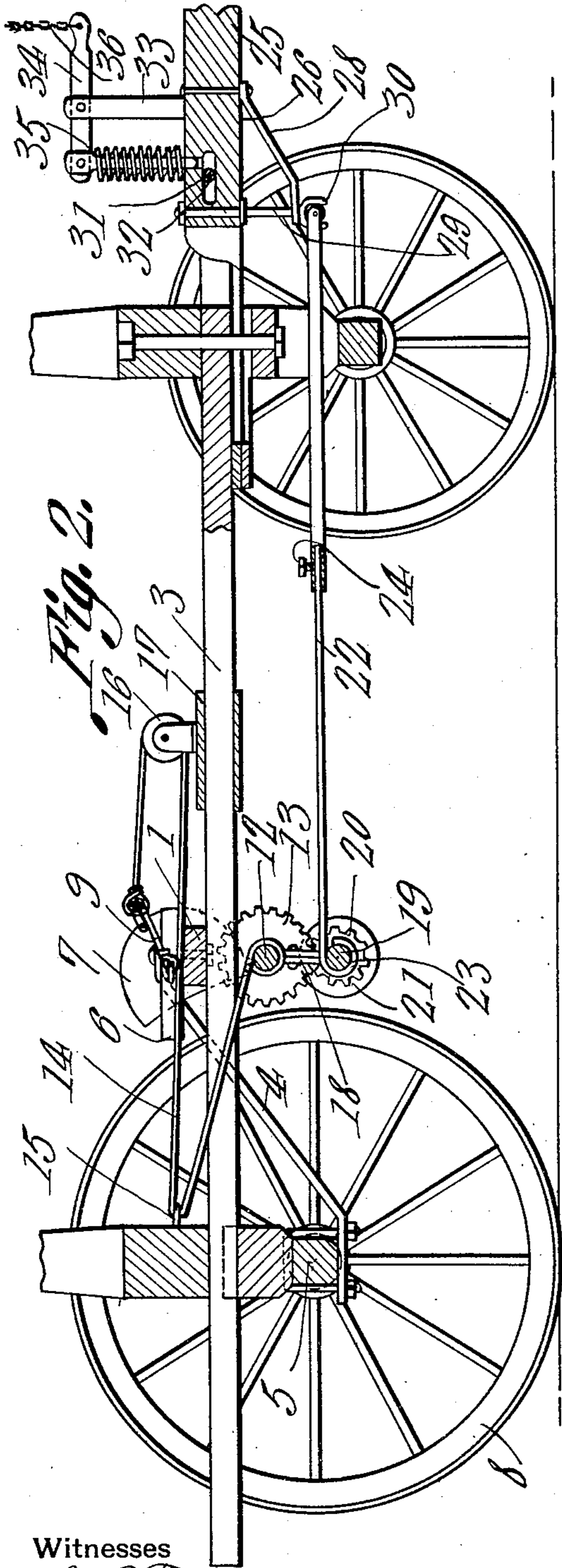
by

AUTOMATIC WAGON BRAKE.
APPLICATION FILED SEPT. 22, 1910.

999,952.

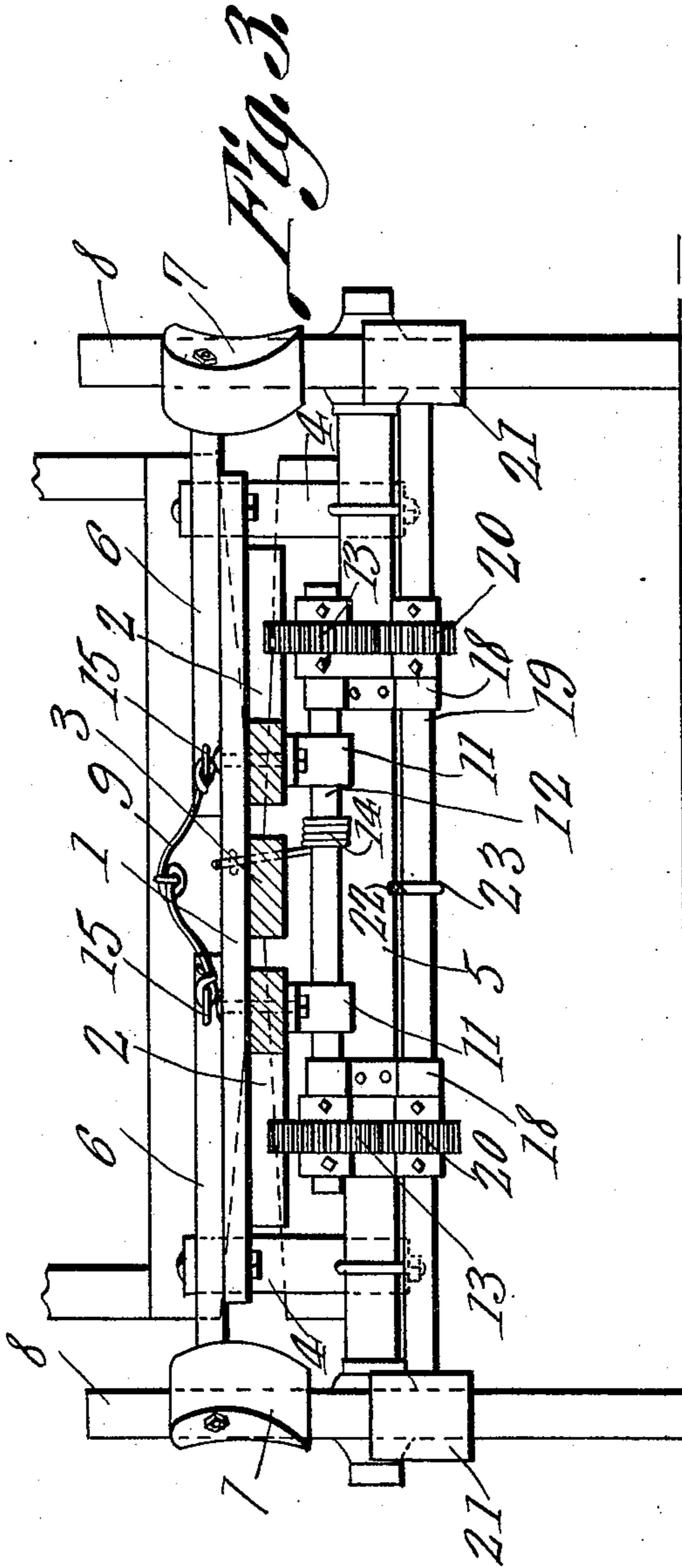
Patented Aug. 8, 1911.

2 SHEETS--SHEET 2.



Witnesses

J. J. Tomlin
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UNITED STATES PATENT OFFICE.

JOHN BLASKA, OF LOUP CITY, NEBRASKA.

AUTOMATIC WAGON-BRAKE.

999,952.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed September 22, 1910. Serial No. 583,243.

To all whom it may concern:

Be it known that I, JOHN BLASKA, a citizen of the United States, residing at Loup City, in the county of Sherman and State of Nebraska, have invented a new and useful Automatic Wagon-Brake, of which the following is a specification.

This invention has relation to automatic wagon brakes and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a brake structure in the form of an attachment which may be readily applied to the running gear of a farm wagon and which is automatically operated by the forward or rearward movement of the tongue of the same. The operation of the brake or the position of the parts of the same upon the running gear does not interfere with a wagon box or rack carried by the running gear or any other load supported thereon.

With this above object in view the brake attachment includes a cross bar adapted to be secured to the rear braces of the running gear and which when in position extends transversely across the reach of the running gear. Braces are provided between the ends of the cross bar as the rear axle of the running gear. Brake beams are pivotally mounted on the said cross bar and carry at their ends brake shoes adapted to operate against the peripheries of the rear wheels of the running gear. The inner edge portions of the said beams are pivotally connected together by means of a bail and a spring is connected at one end to the intermediate portion of the said bail and at its other end to the intermediate portion of the rear axle of the running gear. Brackets depend from the said cross bar and a winding shaft is journaled for rotation in the said brackets and another shaft is also journaled in the said brackets and means are provided which operatively connect the said shafts together. The last mentioned shaft is provided with friction rolls which are adapted to be moved against the peripheries of the rear wheels whereby the said shafts are rotated. A cable is arranged to wind upon the upper shaft and passes through a guiding device attached to the rear axle of the running gear thence is trained around a pulley located on the coupling block of the running gear and

at its other or upper end is connected to the intermediate portion of the bail before mentioned.

A tongue is slidably mounted between the hounds of the running gear and the forward end of a push rod is pivotally connected by means of a universal joint with the said tongue and the rear end of the said push rod is connected with the lowermost shaft above mentioned.

In the accompanying drawing: Figure 1 is a top plan view of a running gear with the brake attachment applied thereto. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view of the same.

The automatic brake attachment includes a cross bar 1 which is adapted to be secured to the braces 2 of a running gear and which lies transversely across the reach 3 at a point between the forward and rear wheels of the said running gear. Braces 4 are connected at their forward ends with the outer ends of the cross bar 1 and at their ends with the axle 5 of the running gear. Brake beams 6 are pivotally connected at points intermediate their ends to the ends of the cross bar 1 and carry at their outer ends brake shoes 7 which are adapted to engage the peripheries of the rear wheels 8 of the running gear of the wagon. A bail 9 pivotally connects the inner ends of the brake beams together and a coiled spring 10 is connected at its forward end with the intermediate portion of the said bail and at its rear end with the intermediate portion of the rear axle 5 of the running gear. The spring 10 is under tension with a tendency to hold the bail 9 toward the rear axle 5 of the running gear.

Brackets or bearings 11 are secured to the under sides of the braces 2 by the devices that connect the cross bar 1 with the said braces. A transversely disposed shaft 12 is journaled in the said brackets and is provided at its ends with gear wheels 13. A cable 14 is arranged to wind at one end upon the said shaft 12 and from the said shaft passes through a guide 15 attached to the rear axle 5 of the running gear and from the said guide the said cable passes around a pulley 16 mounted upon the coupling block 17 of the running gear and at its upper or forward end is connected to

the intermediate portion of the bail 9 in the manner as illustrated in Fig. 1 of the drawing.

Hangers 18 are journaled at their upper ends upon the shaft 12 and hang pendant from the said shaft. A shaft 19 is journaled in the lower ends of the hangers 18 and the said shaft 19 is provided with gear wheels 20 which mesh with the gear wheels 13. Rollers 21 are fixed to the end portions of the shafts 19 and are located directly in front of the rear wheels 8 of the running gear and at times are adapted to frictionally engage the same as will be hereinafter explained.

The rear end of a push rod 22 is provided with a bearing 23 which receives the lowermost shaft 19. The push rod 22 is longitudinally extensible and is preferably made of two sections which telescopically engage each other and which are provided with suitable securing devices 24 for holding the said sections in proper relation with respect to each other. The tongue 25 of the running gear is slidably mounted within a cuff 26 located between the hounds 27 of the running gear. A bracket 28 depends from the tongue 25 and the forward end of the push rod 22 is connected with a pin 29 which forms a component part of the bracket 28 by means of a universal joint 30. The tongue 25 is provided in the vicinity of its rear end with an elongated slot 31 which receives a cross pin 32 which is secured at its ends in the cuff 26 before referred to, thus means are provided for limiting the longitudinal movement of the tongue 25 with relation to the said cuff. A standard 33 is mounted upon the rear end portion of the tongue 25 and a lever 34 is fulcrumed upon the upper end portion of the said standard. A pin 35 is pivotally connected at its upper end with one end of the lever 34 and projects down through a perforation in the upper portion of the tongue 25 and is adapted to enter the slot 31 provided at the rear end thereof. A chain or other flexible member 36 is connected with the forward end of the lever 34 and may extend above the running gear to a point upon the wagon body within the convenient reach of one driving a team hitched to the running gear.

In operation the brake works as follows: Presuming that a team of draft animals is hitched to the tongue 25 and the said animals are moving in a forward direction, and the pin 35 is in an elevated position, the tongue 25 is drawn forwardly within the cuff 26 and the push rod 22 is also moved forwardly which holds the shaft 19 in a forward position and the rollers 21 out of contact with the peripheries of the wheels 8 of the running gear. Presuming that the running gear begins to descend an incline

and a hold back strain from the draft animals is applied to the tongue 25, the said tongue 25 is then moved rearwardly in the cuff 26 and the push rod 22 is carried back with the same. The rearward movement on the part of the push rod 22 swings the shaft 19 to the rear and the rollers 21 are brought into contact with the peripheries of the rear wheels 8 of the running gear. When this is done frictional contact is established between the peripheries of the wheels 8 and the said rollers 21, and the rollers 21 are caused to rotate in unison with the said wheels 8 and the shaft 19 is rotated. Through the intermeshing gear wheels 20 and 13 the shaft 12 is rotated and the cable 14 is wound thereon. As the said cable 14 winds upon the shaft 12 the bail 9 and the inner ends of the brake beams 6 are moved in a forward direction against the tension of the spring 10, and the outer ends of the brake beams 6 are swung in a rearward direction so that the shoes 7 are brought into frictional contact with the peripheries of the wheels of the running gear. Thus as the said wheels 8 continue to rotate, the friction between the shoes 7 and the peripheries of the said wheels is increased and consequently the rate of speed at which the running gear is moving down the incline or over the surface of the ground is checked. As soon as the hold back strain is eased and a pulling strain is applied to the tongue 25, the operation of the parts above described is reversed. It is necessary to provide a universal or similar joint 30 between the forward end of the push rod 22 and the pin 29 of the brackets 28 in order that the brake attachment will have sufficient flexibility to permit the front axle of the running gear to swing with relation to the forward end of the reach 4 in the usual manner. Also by providing a longitudinally extensible push rod 22 with means for securing the sections thereof in position, the device may be applied to running gears irrespective of their relative lengths.

Having described the invention what I claim as new and desire to secure by Letters Patent is:

1. In combination with a running gear, a tongue slidably attached thereto, a cross bar attached to the running gear, brake beams pivotally mounted upon the ends of the cross bar, shoes carried at the outer ends of the brake beams, a bail connecting the inner ends of the brake beams together, a spring connected with said bail and adapted to hold the inner ends of the brake beams in a rearward position, a shaft journaled upon the running gear, hangers depending from said shaft, a second shaft journaled in said hangers, intermeshing gear wheels operatively connecting said shafts together, rollers attached to the last said shaft and

adapted to encounter the peripheries of the rear wheels of the running gear, a push rod connected with the tongue and the last mentioned shaft and a cable arranged to wind
5 at one end upon the first mentioned shaft and connected with the bail and adapted to pull the same against the tension of the said spring.

2. In combination with a running gear, a
10 tongue slidably attached thereto, a cross bar attached to the running gear, brake beams pivotally mounted upon said cross bar, brake shoes carried at the outer ends of the brake beams and adapted to engage the peripheries
15 of the rear wheels of a running gear, a bail connecting the inner ends of the brake beams together, resilient means for holding the inner ends of the brake beams in a rearward position, a shaft journaled upon the running
20 gear of the wagon, hangers journaled upon said shaft and depending from the same, a

second shaft journaled in said hangers, rollers fixed to the end portions of the last mentioned shaft and adapted to engage the peripheries of the rear wheels of a running
25 gear, intermeshing gear wheels operatively connecting the said shafts together, a cable arranged to wind upon the first said shaft and trained about guides mounted upon the running gear and adapted to exercise a pull
30 upon the inner ends of the brake beams in the opposite direction from the pull exercised by said resilient means, and a push rod connected with the tongue and the last mentioned shaft.
35

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN BLASKA.

Witnesses:

JOHN W. LONG,
W. E. HENRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
