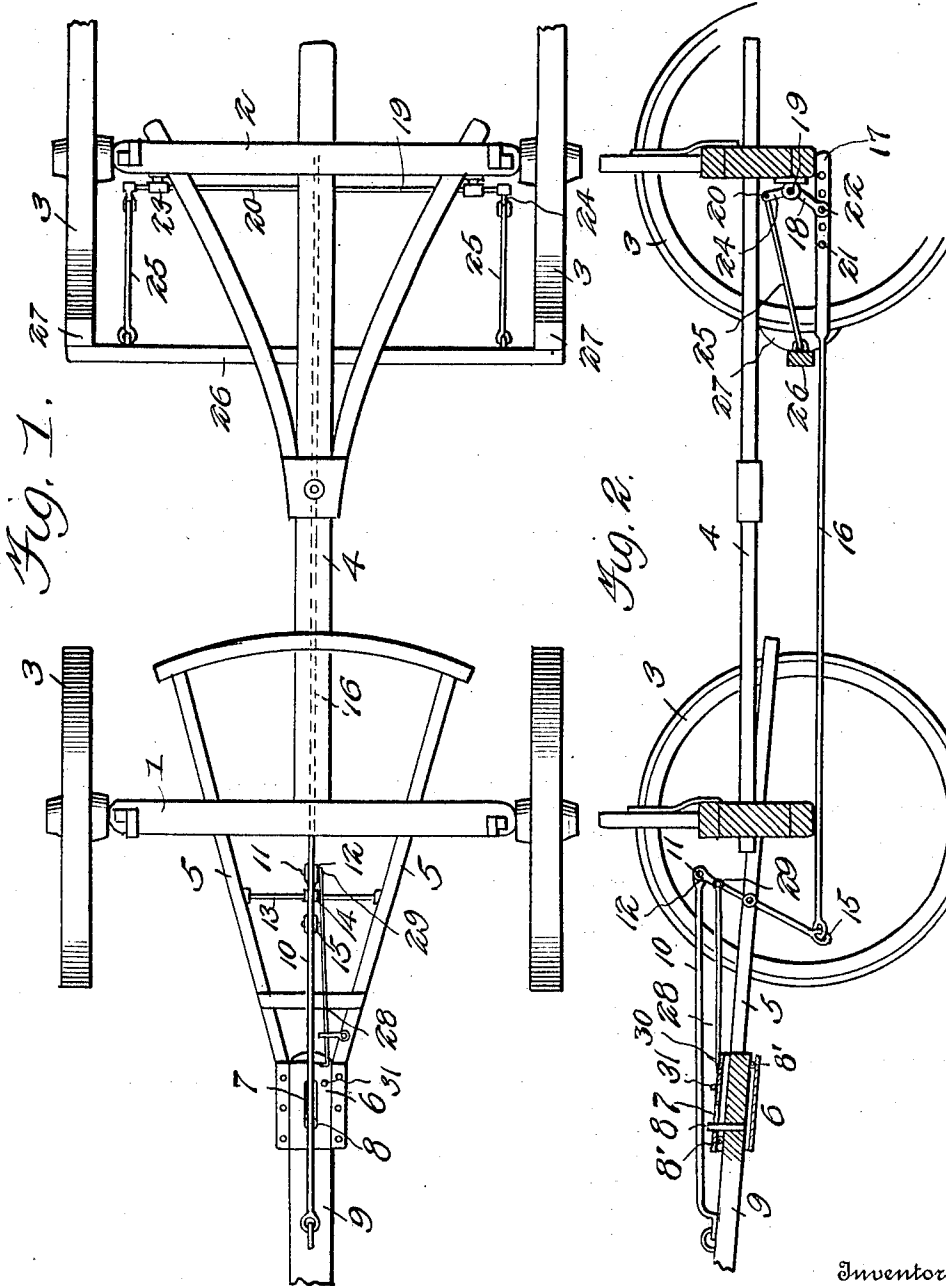


J. D. SMITH.
BRAKE.

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1,048,365.

Patented Dec. 24, 1912.



Witnesses

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JAMES D. SMITH, OF STONEVILLE, NORTH CAROLINA.

BRAKE.

1,048,365.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES D. SMITH, a citizen of the United States, residing at Stoneville, in the county of Rockingham and State of North Carolina, have invented new and useful Improvements in Brakes, of which the following is a specification.

This invention relates to certain novel and useful improvements in vehicle brakes and has particular application to brakes to be employed in connection with wagons and the like.

In the present instance, it is my purpose to provide a structure in which the vehicle brake is adapted to be set automatically by the backward movement of the tongue when the vehicle is descending an incline, and which brake will be returned to its normal non-braking position when draft or pull is exercised upon the pole.

Furthermore, it is my purpose to provide means for holding the tongue to retain the brake in non-braking position at desired times, such, for instance, when the wagon is to be backed.

Another object of my invention is to provide a braking mechanism for wagons which will embody in its construction the desired features of simplicity, strength efficiency and durability, and, furthermore, I aim to provide a braking device which may be attached to any form of ordinary vehicle and which may be manufactured and marketed at a relatively low cost.

With the above-recited objects and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claim.

In the accompanying drawings:—Figure 1 is a top plan view of the running gear of a wagon and showing my improved braking mechanism applied thereto. Fig. 2 is a view, partly in section and partly in side elevation of the same.

Referring now to the accompanying drawing in detail, the numeral 1 indicates the front axle of the vehicle while 2 is the rear axle thereof, said axle carrying the usual wheels 3. The coupling pole of the vehicle is shown at 4 and the numerals 5—5 designate the front hounds, said hounds carrying at their forward ends the cap plate 6, having an elongated slot 7 therein through which projects the vertically arranged bolt

or pin 8 carried by the tongue 9, so that while the tongue is retained between the ends of the hounds it is free to slide back and forth relative thereto. Rollers 8', 8' are preferably carried by the cap plate 6 above and below the tongue 9 so that the latter may slide freely within the cap plate. Connected to the tongue at an appropriate point is a rod 10 pivoted at 11 to the arms 12, the latter in turn being mounted centrally to pivot upon the cross bar 13 as at 14, said arm being then pivotally connected at 15 to the relatively long rod 16 which extends beneath the frame of the running gear of the wagon and is connected adjacent to its rear end 17 to the connecting arm 18, the latter in turn being connected at 19 to the cross rod 20. At its rear end 17, the rod 16 is provided with a number of transverse openings or bores 21, for the reception of a bolt 22 by means of which the rod is connected to the arm 18, this arrangement permitting the adjustable connection of the arm and rod so that the throw of the braking mechanism may be lengthened or shortened as desired. The cross rod 20, to which the upwardly extending arm 18 is connected, is supported upon the rear axle by means of brackets 23, the ends of said rod being provided with upwardly turned extensions 24 and to the ends of these latter are connected the forwardly extending arms 25, 25. These latter arms are connected to the brake beam 26 which carries the brake shoes 27.

From the description thus far given it will be seen that when draft is being exerted upon the tongue, the connecting bolt 8 will be drawn forward in the slot 7, and the tongue pulled to the limit of its outward movement so that the rod 10 will pull upon the pivoted end 11 and thence through the connection 12 and the rod 16, arm 18 and cross bar 20, and hold the brake beam with the brake shoes away from the wheels. Should the wagon be descending a hill or other incline, the draft animals in holding back on the tongue will push said tongue backward, and through the connections with the rod 16 will swing the arm 18, which is below the cross rod 20, forward, thereby turning the rod 20 in its brackets and throwing the short extensions 24 rearward to draw the arms 25 backward thereby carrying the brake shoes into contact with the wagon wheels. Should it be desired to hold the brakes against application to the wheels,

is in case of backing the vehicle, this may be accomplished by the hook rod 28 which is connected at 29 to the rod 12 and is detachably engaged with the catch plate through the hook 30 designed to be received by the aperture 31 in the cap plate.

It will be seen that I have provided an exceedingly simple yet efficient and effective arrangement of braking device which is applicable to any type of vehicle to which the brakes will be applied when the wagon is descending a grade or hill, so that the necessity of employing foot levers and other supplemental mechanism is avoided.

I claim:—

The combination with the running gear of a vehicle including the hounds thereof, of a brake beam provided with brake shoes at the ends thereof, a rotatable cross rod arranged adjacent the brake beam and provided with upwardly turned end portions, arms connecting the free extremities of the brake beam to the said end portions, a longitudinally extending rod, an arm rigidly secured to said cross rod and provided with

an apertured extremity, a pin connecting the apertured extremity of the arm with the longitudinally extending rod, said longitudinally extending rod at its connection with the arm being provided with a plurality of apertures adapted to interchangeably receive the pin to provide an adjustable connection, an arm pivoted intermediate its end and to one end of said longitudinally extending rod, a connecting rod between the tongue of the vehicle and the other end of the pivoted arm, a cap plate secured to the hounds and slidably receiving said tongue and provided with an aperture, and a second rod pivoted to the pivoted arm below the connection of the first rod, said last-named rod being provided with a hooked terminal engageable in the aperture in said cap plate.

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

JAMES D. SMITH.

Witnesses:

C. K. NOLEN,

W. S. W. MATTHEWS.