

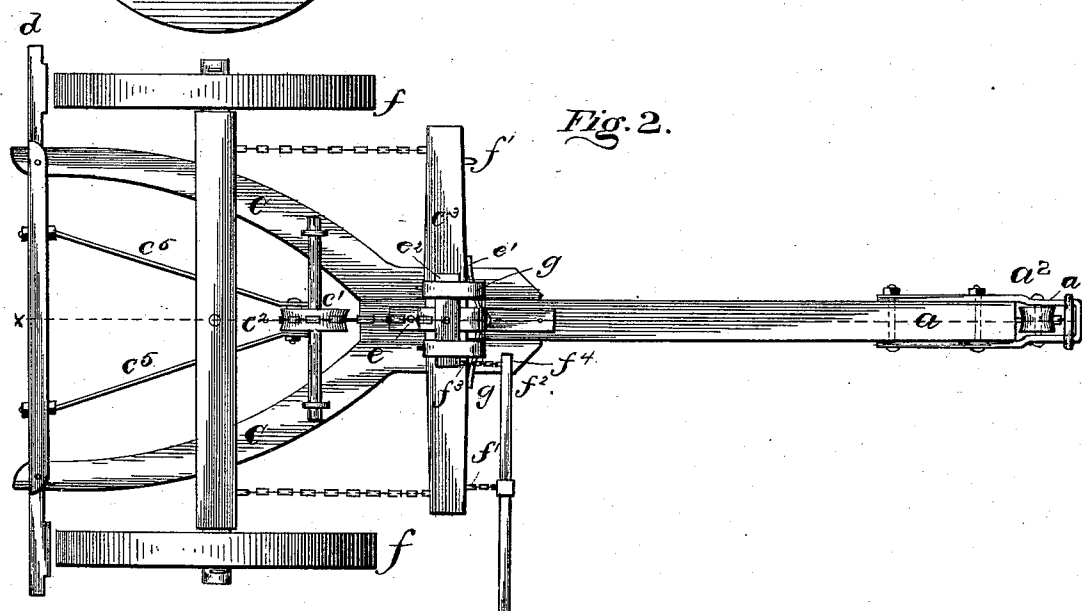
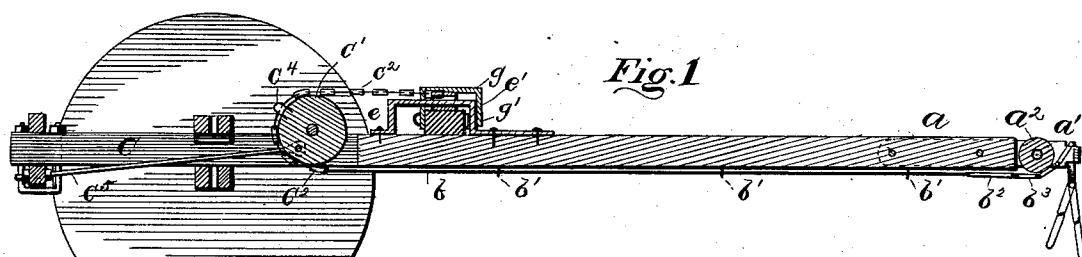
(No Model.)

T. J. TIMMONS.

WAGON BRAKE.

No. 367,168.

Patented July 26, 1887.



Witnesses:

Witnesses:
George S. Cooper,
Nathl Parkhurst.

Inventor:

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UNITED STATES PATENT OFFICE.

THOMAS J. TIMMONS, OF GODWIN, TENNESSEE.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 367,168, dated July 26, 1887.

Application filed April 14, 1887. Serial No. 234,824. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. TIMMONS, a citizen of the United States, residing at Godwin, in the county of Maury and State of Tennessee, have invented certain new and useful Improvements in Wagon-Brakes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to improvements in wagon-brakes; and it consists in the novel construction and arrangement of its parts, as hereinafter fully described in the specification, and set out in the claims.

In the accompanying drawings, Figure 1 is a sectional view of Fig. 2, cut through on the line *x x*. Fig. 2 is a top plan view of my invention.

My invention is described as follows:

My invention can be applied to any of the wagons now in use, or, by little change of mechanism, may be applied to vehicles having shafts.

In the accompanying drawings, *a* represents the tongue of the wagon. *a'* represents the nose of the tongue. In the nose is journaled perpendicularly a wheel, *a''*. Underneath the said tongue a light rod, *b*, is secured, which works through a number of staples, *b'*, to hold it in place. To the front end of the said rod is secured a large ring, *b''*, to prevent the rod from being drawn through the nose of the tongue, to the end that should any accident happen to break it loose from its fastening at its rear end the horses would still be secured to the end of the tongue by the tongue-chains. To this large ring *b''* is secured a short chain, *b'''*, which passes around the wheel *a''* and up through the nose of the tongue. To the outer end of this chain is attached the tongue-chains. A little beyond the rear end of the tongue *a*, and between the hounds *c*, is journaled a wheel, *c'*, and to the rear end of the rod *b* is attached a chain, *c''*, which passes around the said wheel *c'*, and has its upper end securely fastened to the strap *e''*, which is secured to the upper face of the doubletree *c''*. This chain is se-

cured to the wheel *c'* by a staple, *c''*, or other suitable means. Secured to the said wheel *c'*, a short distance from its center, are two rods, *c'''*, one on either side, which are pivoted in place by any suitable and substantial means. These rods extend back and are passed through the brake-bar *d*, and there are on each rod two nuts—one against the front and the other against the rear face—so that the brake-bar can be adjusted as circumstances may require. The said brake-bar *d* is swung on the lower part of the hounds in loops, while the slider is secured on the top of the hounds. I can, if I see proper, and claim the right to, dispense with the slider and secure the said brake-bar on top of the said hounds, in which event it would answer as the slider.

The doubletree *e'* occupies its usual position on the front end of the hounds and the rear end of the tongue; but it is not secured by a bolt, as is usual, but by two bands or loops, as follows:

Loop *e* has its rear end secured to the rear end of the tongue *a* and rises perpendicularly the thickness of the doubletree, or a little more, and then extends forward beyond the front edge of the doubletree and the spring *e'*, and then down, and then forward, and is secured to the tongue. Its loop is long enough, however, to allow the doubletree to play back and forward, the purpose of which is hereinafter explained. A strap, *e''*, passes over the said strap *e* and has its ends secured to the said doubletree. This arrangement keeps the doubletree from moving endwise in either direction, but allows it to move backward and forward, as above shown. To the front face of the doubletree is secured the spring *e'*, which works against the front part of the strap *e*, the purpose of which is hereinafter explained. This spring may be a leaf-spring, as shown in the drawings, or I may use a spiral or rubber spring. The stay-chains *f f*, which are secured to the axle, have their front ends attached to the extreme ends of the doubletree beyond the hooks *f'*, to which the horses are attached. To the rear face of the doubletree is hinged the two rear ends of the lock *g*, one on either side of the strap *e*. This lock is so shaped that it lies over the upper face of the doubletree and over the strap *e''*, close down and fitting to the same, its front end, *g'*, being turned down

and fits snugly against the front face of the strap *e*, the purpose of which is hereinafter explained.

My invention operates as follows: When the wagon starts down an incline, the wheel-horses pull back on the tongue-chains, which operation draws the rod *b* forward. This rod, operating on the chain *c*², turns the wheel *c*¹ backward. This in turn draws the rod *c*³ forward, which brings the brake-bar *d* against the rear face of the front wheels and brakes the wagon. When the horses pull on the tongue-chains, as above described, the doubletree is thereby left free and may be moved back. As soon as it is thus left loose, the spring *e*¹ starts it back, and, pulling on the rod *b*, actuates the chain *c*², as before described, which draws the doubletree farther back. As soon as the wagon reaches the plane again, the horses throw the doubletree forward, which turns the wheel *c*¹ forward. This action releases the brake *d*. The above operations are automatically performed as often as the wagon descends an incline and strikes the plane or runs over a bowlder or other like thing. Every time the horses pull on the tongue-chains they will put on the brakes, and every time they pull on the doubletree they take off the brakes.

Lock *g*, above described, is not usually worn over the doubletree, but lies back on the chain, and is used for the following purpose.

When I wish to back the wagon, I throw the lock forward, and its front end, *g*¹, fits down closely against the front part of the strap *e* and locks the doubletree, so that when the horses pull on the tongue-chains the brakes will not move, and consequently the wheels will not be locked. The object in having the stay-chains *f* attached to the rear end of the doubletree *c*² and beyond the point *f*¹ to which the horses are attached is to the end that in turning the wagon—we will say to the left, for instance—an inexperienced driver might permit the saddle-animal to pull on its tongue-chain, and this would have a slight tendency, though the pull would be at a very considerable angle, to put on the brakes. To avoid this, the right-hand-wheel mule, being attached to the doubletree at the point *f*¹, would counteract such tendency and keep the doubletree from sliding back, and consequently prevent the brakes from being put on. As an additional precaution, I also attach a chain, *f*², to the doubletree at the point *f*³, and to the inner end of the singletrees *f*⁴, and thus keeping the doubletree and singletree on parallel lines. I

do not confine myself to the chain; but may use any equivalent means.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the wagon, of the wheel *a*², journaled in the nose *a*¹, the chain *b*², passing around said wheel and attached to the large ring *b*¹, ring *b*³, attached to the rod *b*, passing along the under side of the tongue, chain *c*², attached to the rear end of said rod, passing around wheel *c*¹, and its front end attached to strap *e*², rods *c*³, their front ends pivoted to said wheel and their rear ends secured in the brake-bar *d*, strap *e*², secured to the upper face of the doubletree *c*², strap *e*, its rear end secured to the rear end of the tongue, said strap passing over the doubletree and under said strap *e*², its front end being secured to said tongue, and spring *e*¹, working between the front face of said doubletree and the front part of the loop of the strap *e*, substantially as shown and described, and for the purposes set forth.

2. In combination with the wagon-brake as above described, the stay-chains *f* *f*¹, secured to the outer ends of the doubletree, the hooks *f*¹, securing the singletree to the doubletree at a point inside of the said stay-chains, and the chains *f*², one end secured to the doubletree at a point, *f*³, near its center, and the other end to the inner end of the singletree, substantially as shown and described, and for the purposes set forth.

3. In a wagon-brake as above described, the tongue *a*, strap *e*, secured to said tongue, lock *g*, hinged to the rear face of said doubletree, its front end, *g*¹, impinging against the front part of the loop of the strap *e*, locking said doubletree, substantially as shown and described.

4. The combination of the chain *b*¹, working around the wheel *a*², its rear end attached to rod *b*, rod *b*, having its rear end attached to chain *c*², chain *c*², working around wheel *c*¹, having its front end attached to the doubletree, rods *c*³, attached to said wheel *c*¹, and the brake-bar *d*, substantially as shown and described.

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

THOMAS J. TIMMONS.

Witnesses:

KATIE PARKHURST,
GEORGE S. COOPER.