(No Model.)

E. M. ALLEN.

WAGON BRAKE.

No. 346,698. Patented Aug. 3, 1886.

Fig. 1.

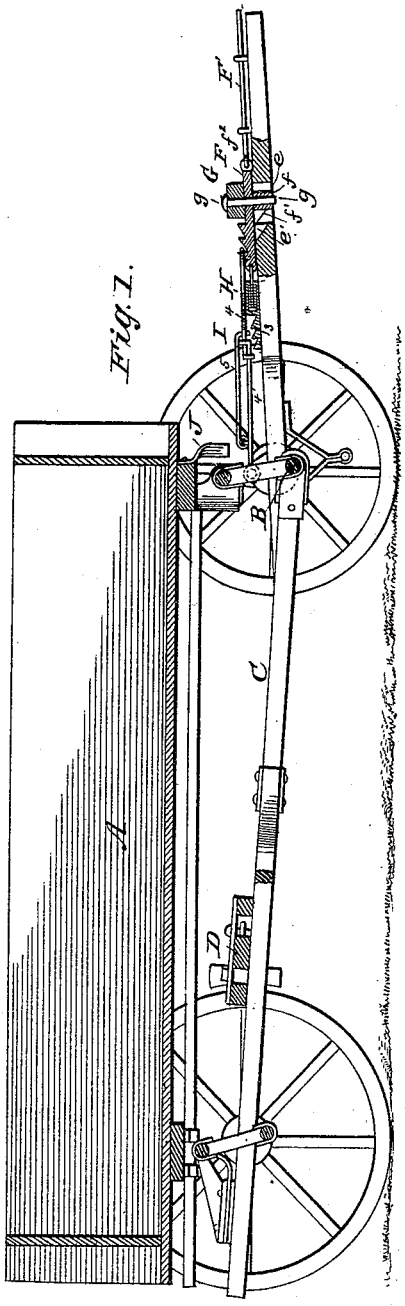


Fig. 3.

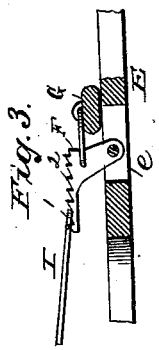
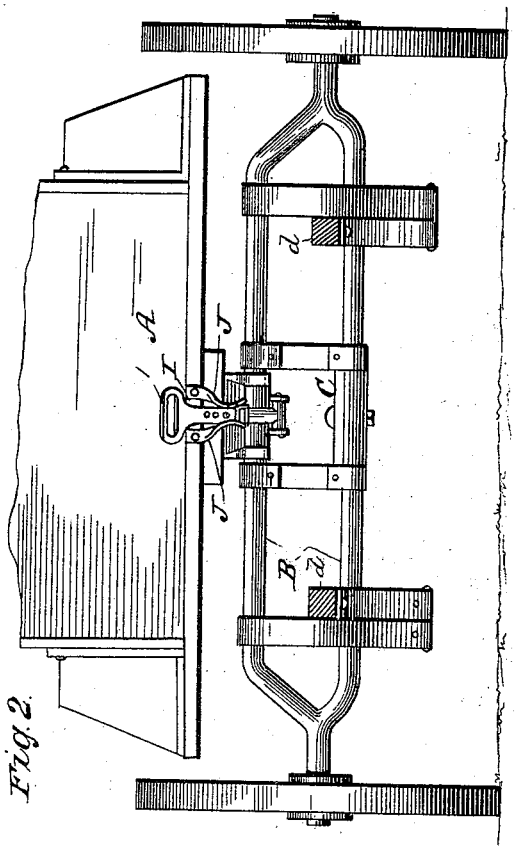


Fig. 2.



WITNESSES:

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EDWARD M. ALLEN, OF STAFFORD, MARYLAND, ASSIGNOR TO SALLIE E. ALLEN, OF SAME PLACE.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 346,698, dated August 3, 1886.

Application filed April 23, 1886. Serial No. 199,964. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. ALLEN, of Stafford, in the county of Harford and State of Maryland, have invented a new and useful Improvement in Wagon-Brakes, of which the following is a specification.

In the drawings, Figure 1 is a longitudinal section to one side of the center of a wagon provided with my improvements, the pole being partly broken away to show the manner of supporting the double-tree. Fig. 2 is a front elevation, parts being broken away and the connection between the oscillating body-support and the draft-attaching devices being shown as held elevated by its supporting-spring; and Fig. 3 shows a modification.

The present invention is an improvement on that described and shown in my former Patent No. 322,340, and seeks to provide simple and convenient mechanism by which the oscillating body-support, which operates the brake, may be connected with the team-attaching device, in order that when the team is stopped on a level or when ascending a hillside the part may be so adjusted that any forward motion of the team will serve to apply the brake with great force, and stop the team.

The invention also seeks to provide other improvements, as will be described.

The invention consists in certain features of construction and novel combinations and arrangements of parts, as will be described, and pointed out in the claims.

In carrying out my present invention, the body A, oscillating axle B, connection C, and brake-bar D, and hounds *d* may be constructed, connected, and arranged, substantially as shown in my said patent above specified, so that the brake will be automatically applied in descending an incline, as more fully described in the said patent.

In the pole or tongue E, I form a slot, *e*, extended in the longitudinal direction of the pole. On the pole I place and secure movably a plate, F, or block having in the present instance a depending hollow stud, *f*, projected into the slot *e*, and provided on its rear side with a web, *f'*, uniting it with the body of the plate, and serving as a brace for the stud. The slot *e* is formed with an extension, *e'*, to receive said brace-web in the rearmost position of the plate. I provide the plate with an eye or loop, f^2, for connection of the rod F', which projects forward, and serves as a draft attachment for a lead horse or team when it is desired to use the same.

Manifestly the rear team might be hitched directly to the plate F; but it is preferred to provide a single or double tree, G, as usual and project the coupling-pin *g* through the double-tree and thence through the hollow stud *f*. The plate F, forming a part of the draft-attaching device is connected with a spring, H, which operates to hold such plate normally back. The plate F may be provided with an eye or opening for engagement by the detachable connection, when such connection is provided with a hook and adapted to be adjusted into engagement with the draft-attaching devices by hand; but I prefer the construction hereinafter described.

The axle, it will be seen, is connected with and operates the brake, and such axle forms an oscillating support for the body. A detachable connection extends between and joins the axle and the draft-attaching device when the latter is in its rearmost position. It is preferred to form this connection of a rod, I, pivoted at one end to the oscillating support and having its opposite end adapted to engage the ratchets 2 of plate F, and a spring support, J, is arranged to secure the rod I out of engagement with the ratchet, so that when not engaged with the said ratchet the spring may hold the rod I up clear of the double-tree and its attachments. It is preferred to form the connection at its lower end with a loop, 1, which will rest upon and engage the teeth of the ratchet 2, which latter may be formed on the plate F, as shown, or attached to the double-tree, as desired. By this means the rod, when released from its spring, will automatically adjust into engagement with the ratchet, and by a number of teeth, as shown, the wear on the brake-shoes will be taken up by the adjustment of the connection into the proper tooth of the rack.

Now it will be understood that instead of joining the connection directly to the oscillating body-support it may be connected indirectly therewith through the medium of the body.

While I prefer to arrange the team-attaching devices, as shown in Figs. 1 and 2, it will be understood that the construction shown in Fig. 3 might be employed. In this figure the double-tree is attached to the plate or block F, which is shown as a pivoted arm, and the connecting device I also engages the said arm.

Now in operation when the team moves forward the double-tree is drawn at once to its foremost position. When the team stops, the brake may be applied either by hand or by backing the team, and the double-tree adjusts to its rearmost position by the action of the spring, or it may be so moved by hand. The connection J has previously been lowered, and when the draft devices are pushed back it engages therewith, as shown in Fig. 1, when, if the team starts forward, its first move will apply the brake with greater force.

It will be understood that the connection I might be a chain or cord, and that the construction of the draft-attaching devices might be varied without departing from the broad principle of the invention.

On the pole or other draft device I secure a plate having ratchet-teeth 3, and form the connection I, adjustable in length usually by making it in sliding sections 4 4, and with a latch-hook, 5. By this construction the connection I, may be adjusted to engage the ratchets 2 to apply the brake, or may be set back to engage the teeth 3 and prevent the brake from being applied when so desired, as, for instance, in backing the wagon or other vehicle. It will be noticed, therefore, that I provide detachable connections between the axle and the team or draft-attaching devices, which serve to apply the brakes or prevent such application, as may be desired.

What I claim as new is—

1. In a wagon-brake, the combination of an oscillating axle adapted to operate the brake, a device adapted for connection with the team or draft and movable independently of the wagon, and a connection between the said axle and device, substantially as set forth.

2. In a wagon-brake, the combination, with an oscillating axle and a plate or block, F, movable, substantially as described, of a connection between said plate or block and the axle, substantially as set forth.

3. The combination of the body, the oscillating axle connected to and operating the brake, the pole or tongue, the double-tree movable along the same, and spring whereby to hold said double-tree normally in its rearward position, and a connection adapted to detachably join the double-tree and axle, substantially as set forth.

4. The combination, with the oscillating axle adapted to operate the brake, of a team or draft attaching device or devices, and a connection between said part and the axle, and adjustable, substantially as described, whereby it may prevent the application of or serve to apply the brake, substantially as set forth.

5. The combination of the osclilating axle adapted to operate the brake of a rod connected therewith, and the draft device having devices 2 and 3, adapted for engagement by the connecting-rod, said rod being formed with sections adjustable one upon the other, whereby said rod may be set to engage one or the other of parts 2 and 3, substantially as set forth.

6. The combination, with the oscillating axle adapted to operate the brake, and the tongue having slot *e*, provided with extension *e'*, of the plate F, having stud *f* and web *f'*, and a connection between plate F and the oscillating axle, substantially as set forth.

7. The combination, with the oscillating axle operating the brake and the draft-attaching device, of the connection for detachably joining said parts, and a spring whereby to support said connection out of contact with the draft-attaching device, substantially as set forth.

8. The combination, with the oscillating axle, the movable draft-attaching device, and the ratchet-teeth formed on or connected therewith, of the connection connected at one end with the oscillating-axle and having its other end adapted to engage the ratchet-teeth, substantially as set forth.

The above specification of my invention signed by me in the presence of two subscribing witnesses.

E. M. ALLEN.

Witnesses:
P. B. TURPIN,
SOLON C. KEMON.