

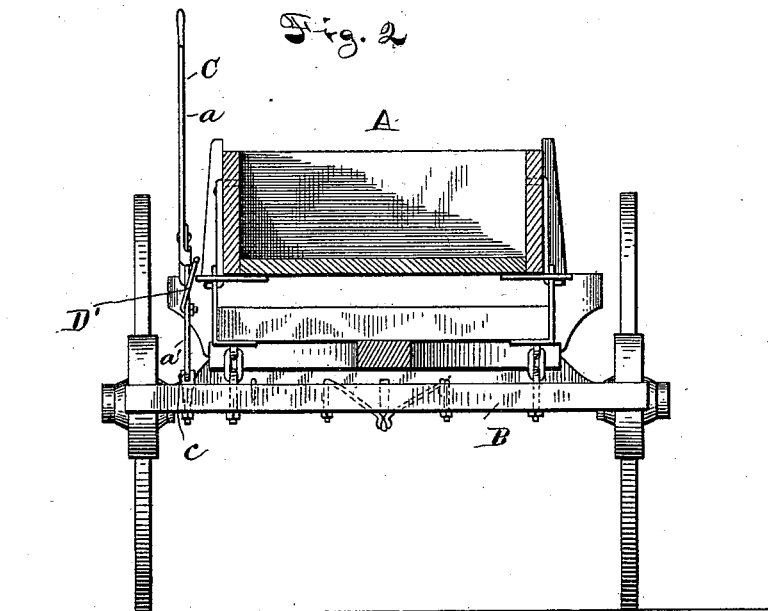
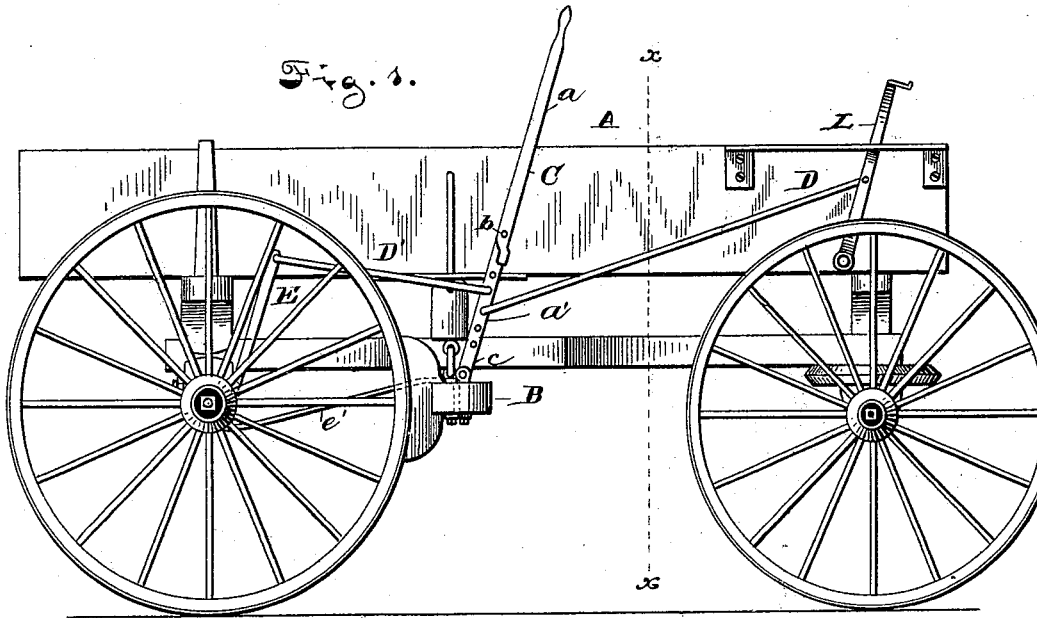
(No Model.)

2 Sheets—Sheet 1.

A. A. SMITH.
VEHICLE BRAKE.

No. 419,293.

Patented Jan. 14, 1890.



Witnesses

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Inventor

Andrew A. Smith,
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Attorney &

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

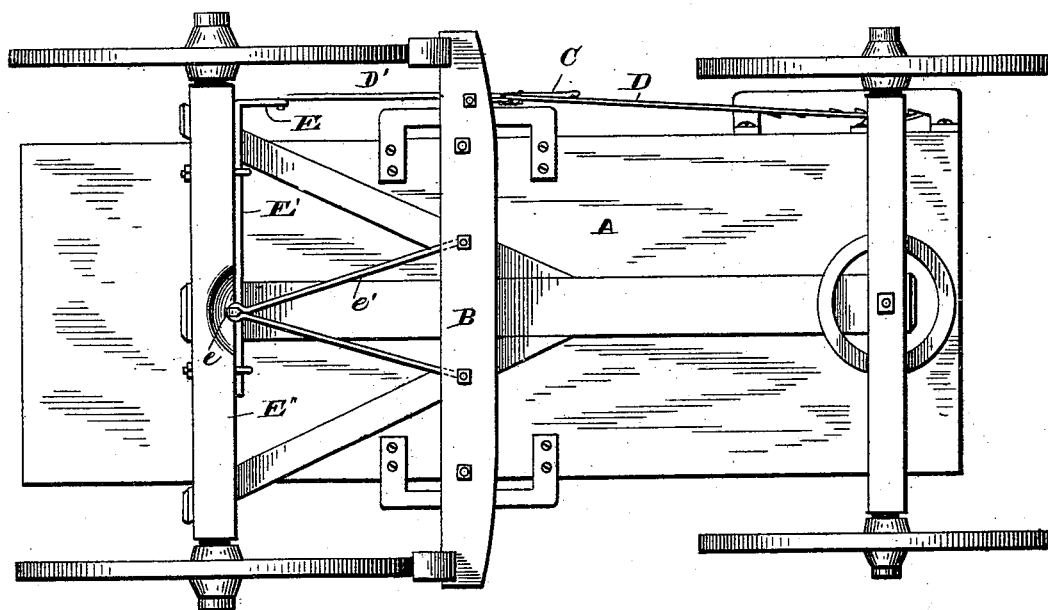


Fig. 4.

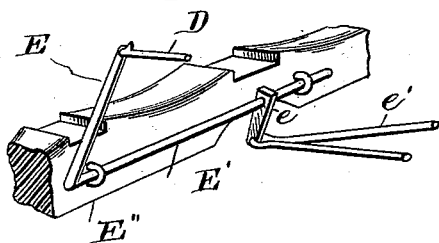


Fig. 5.

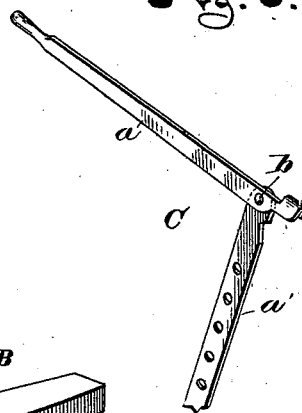
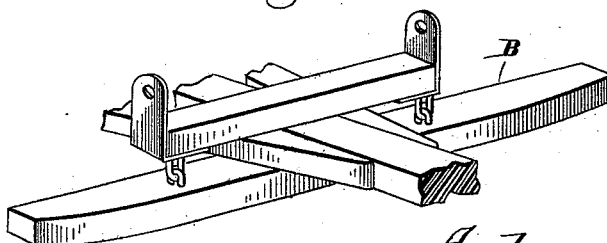


Fig. 6.



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UNITED STATES PATENT OFFICE.

ANDREW A. SMITH, OF PAONIA, COLORADO.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 419,293, dated January 14, 1890.

Application filed November 14, 1889. Serial No. 330,315. (No model.)

To all whom it may concern:

Be it known that I, ANDREW A. SMITH, a citizen of the United States, residing at Paonia, in the county of Delta and State of Colorado, have invented certain new and useful Improvements in Vehicle-Brakes, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a wagon with a mountain-brake and my improvements attached. Fig. 2 is a cross-section on the line X X of Fig. 1. Fig. 3 is a bottom view. Figs. 4, 5, and 6 are details to be referred to.

My present invention relates to an improvement on what is known to the trade as the "mountain-brake;" and it consists in the combination and arrangement with the mountain-brake of the several devices hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will now describe its construction and indicate the manner in which the same is carried out.

In the drawings, A represents a wagon with the mountain-brake beam B suspended loosely beneath the hounds. This beam may be suspended, in any well-known manner, either from the wagon-box or from a suspension-bar resting upon the hounds, as may be preferred.

When the wagon-box is not in use, as when logs are being hauled, it becomes necessary to use the suspension-bar resting on the hounds.

Upon the brake-beam B, I build my improved staff attachment, securing the heel *c* of my staff C directly to the brake-beam. This staff is composed of an upper portion *a* and a lower portion *a'*, pivoted or hinged together at *b*, in such a manner that when the staff is pressed forward it remains rigidly locked, as shown in Fig. 1, but when pressed to the rear, as when the upper section might come in contact with a limb of a tree or other obstruction, it would yield and fall back out of the way.

I also make my brake-rod in two parts, the front part D being attached at forward end to the wagon-box and at its other end to the lower half of the brake-staff, whereby the brake may be operated from the front seat of the wagon by the pivoted lever L on the box when said box is in place. When the box is removed from the wagon for hauling timber,

one half D of the brake-rod remains on the box and the other half D' remains attached to the staff, its other or rear end being attached to the upper end of the arm E of the rocker-shaft E', secured to the rear axle E".

To the rocker-shaft E', I rigidly attach a lever-arm *e*, located near the center of the axle E", and to the outer end of this arm is loosely secured, at its center, the bent rod *e'*, the outer or forward ends of this bent rod being secured to the brake-beam, as shown in Fig. 3.

From this novel construction it is evident that when I push forward my improved staff attachment, and push back the brake-beam, I at the same time pull forward the portion D' of the brake-rod, and this in turn pulls forward the arm E, partly revolves the rocker-shaft E', and with it the lever-arm *e*, which pulls back the bent rod *e'*, which in turn pulls back the brake-beam at the same time that the operator is pushing back the beam by means of the improved staff attachment.

In order to change the leverage of my staff, I provide the lower portion of the staff with perforations for the reception of the rear portion D' of the brake-rod, as shown in Fig. 1.

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

1. In a vehicle-brake, the combination of the suspended brake-beam, the jointed staff C, having its heel attached directly to said beam, a rock-shaft having an arm connected with the staff, and a connection between the rock-shaft and brake-beam, substantially as described.

2. In a vehicle-brake, the suspended brake-beam B and a staff attachment provided with a divided staff-rod, in combination with the arm E, rocker-shaft E', provided with the lever-arm *e*, and the bent rod *e'*, all constructed and arranged substantially as and for the purpose set forth.

3. The combination, with the suspended brake-beam, its jointed staff, a rock-shaft, the arm E thereon, connected with the staff, and a rod connecting the rock-shaft with the beam, of a lever pivoted upon the wagon-body and a rod leading therefrom to the jointed staff, substantially as described.

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