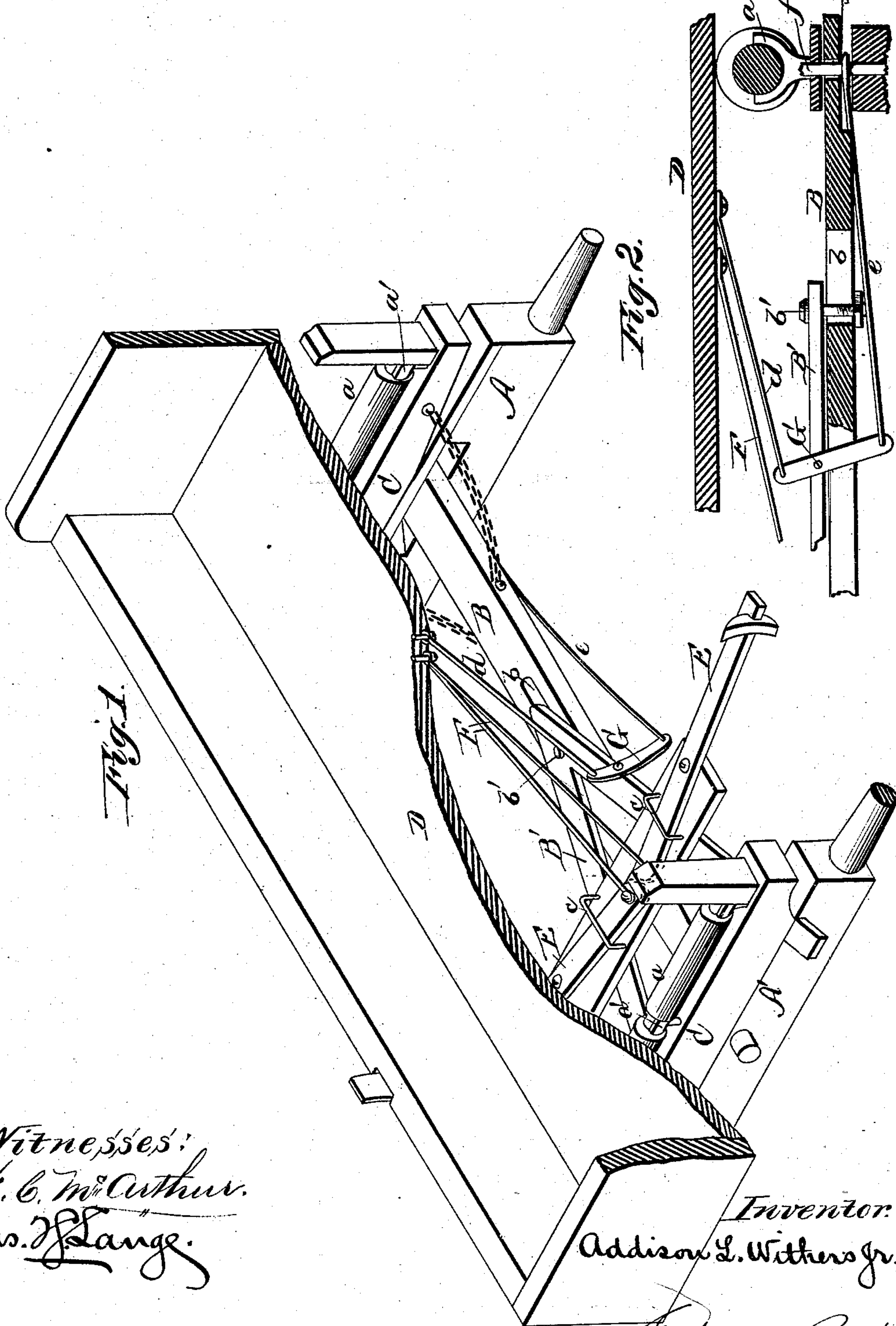


(No Model.)

A. L. WITHERS, Jr.
Wagon Brake.

No. 235,719.

Patented Dec. 21, 1880.



Witnesses:
W. C. McArthur.
Jas. H. Lange.

Inventor:
Addison L. Withers Jr.

per. Edson Bros.
Attorneys.

UNITED STATES PATENT OFFICE.

ADDISON L. WITHERS, JR., OF SUMMIT POINT, WEST VIRGINIA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 235,719, dated December 21, 1880.

Application filed October 11, 1880. (No model.)

To all whom it may concern:

Be it known that I, ADDISON L. WITHERS, Jr., a citizen of the United States, residing at Summit Point, in the county of Jefferson and State of West Virginia, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view, with the body of the wagon broken away, of my improved wagon or vehicle brake. Fig. 2 is a detailed sectional view, showing the connection between the releasing-lever and the king-bolt.

This invention relates to improvements upon Letters Patent for a wagon or vehicle brake granted to me May 4, 1880, No. 227,194, by which the application and releasing of the brakes are effected directly by the movement of the body of the wagon or vehicle; and the nature of my invention consists in the employment, instead of a single brake-bar, of two brake-bars, connected each directly to the bottom of the body, and of a lever pivoted preferably to the rear hound, with one arm connected to the king-bolt or front axle or hound, and the other arm connected to the bottom of the body, arranged to operate by the sliding movement of the reach, substantially as hereinafter more fully set forth.

In the accompanying drawings, A A' refer, respectively, to the front and rear axles, connected together by the reach B, with a slot, b, in it, and the hound B', with a pin, b', fitting and moving in the slot b. This arrangement permits of the reach having a sliding longitudinal movement to enable the releasing-lever to draw upon and take the brakes off the wheels when required. Upon the axles are placed the bolsters C C, connected thereto in the usual way. a a are rolls suitably hung or journaled in boxes a' a', with bolts or means for bolting or screwing them into the bolsters, as shown in Fig. 1. The body D rests upon these rolls,

and they lessen friction as it slides thereon while applying the brakes. E E are the brake-bars, armed with suitable shoes, and pivoted about centrally upon a board or other suitable support fastened upon the hound B'. These bars are limited or controlled in their movements by the staples c, and are connected at their inner ends directly to the bottom of the body by rods or chains F, which may be connected by a single ring attached to the body-bottom, instead of connecting each separately thereto, as shown. By this disposition of parts it will be observed that by the sliding forward of the body, as takes place when descending an incline or descent or going down hill, the body pulls directly and automatically upon the brake-bars, and applies them to the wheels, and thus effects the automatic application of the brakes.

G is a lever, either of the form shown, or of an S-shaped or other suitable form, pivoted to the side of the hound B' or other convenient point thereon, or to the reach, with its upper short arm connected by a chain or rod, d, to the bottom of the body, while its other arm is connected by a rod or chain, e, to the king-bolt f, or to the front bolster or axle.

It will be noticed that when the vehicle reaches a level, and as the reach slides forward with the front bolster, the chain e will draw upon the lever G, which, in turn, will draw upon the body and slide it back sufficiently to cause it to draw upon and release the brake-bars from the wheels.

Suitable means may be provided to limit the sliding movement of and hold the body in position as against endwise movement between the bolster-standards and to adapt it to be dumped.

It will be observed that in descending a hill the gravity of the body applies the brake upon the wheel.

I am aware of the patent for automatic wagon-brakes No. 4,900, of 1846, and the construction therein set forth is not sought to be covered in this application.

What I claim, and desire to secure by Letters Patent, is—

The automatic wagon-brake herein described, consisting of the lever G, pivoted to

the hound B', the sliding reach B b, body D,
and rollers a, the brake-rods F, connected to
said body, the brake-levers E, the rod d, and
rod e, connecting the lever G to the king-bolt,
5 all constructed, arranged, combined, and
adapted to serve as and for the purposes here-
in set forth.

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

ADDISON L. WITHERS, JR.

Witnesses:

W. A. SHEWALTER,
A. G. BAKER.