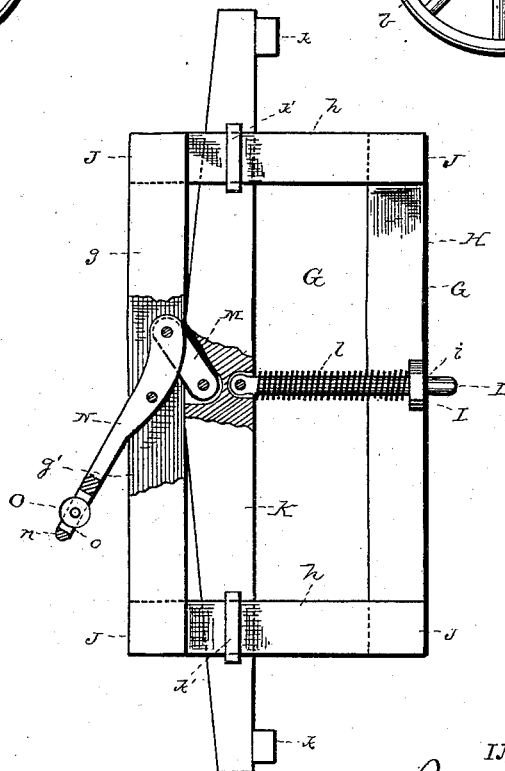
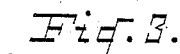
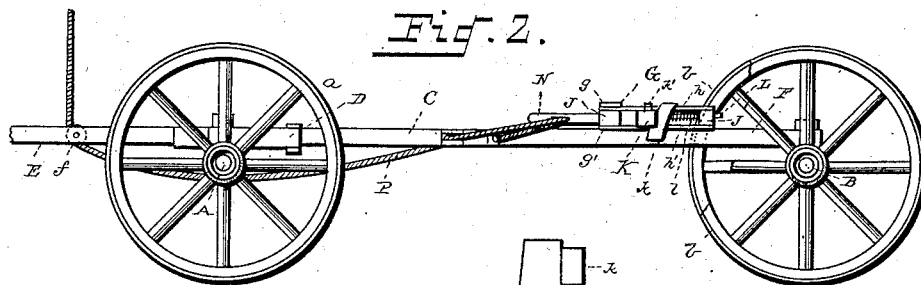
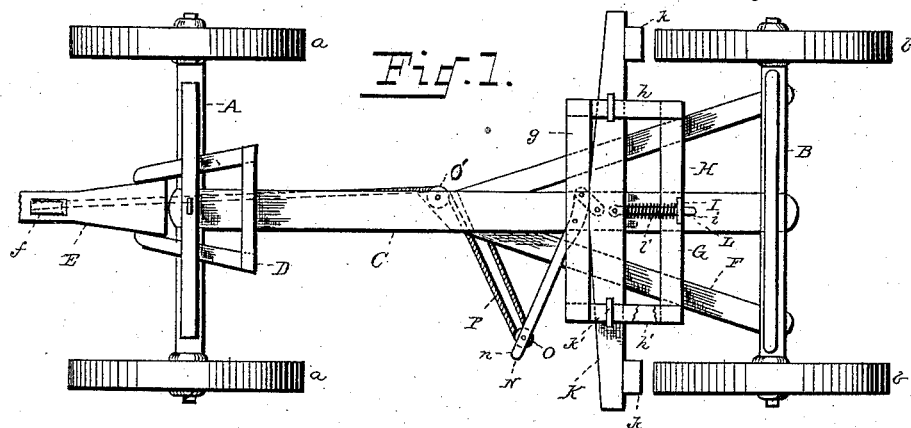


(No Model.)

J. SMITH.
WAGON BRAKE.

No. 382,912.

Patented May 15, 1888.



WITNESSES,
M. B. Harris,
Edw. J. Underwood.

INVENTOR,
Jed. Smith
By J. Johnston
Attorney.

UNITED STATES PATENT OFFICE.

JUD SMITH, OF CHEMUNG, NEW YORK, ASSIGNOR OF ONE-HALF TO ELMER E. WARREN, OF SAME PLACE.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 382,912, dated May 15, 1888.

Application filed November 7, 1887. Serial No. 254,481. (No model.)

To all whom it may concern:

Be it known that I, JUD SMITH, a citizen of the United States, residing at Chemung, in the county of Chemung and State of New York, 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.

The invention relates to wagon-brakes; and its object is to provide a complete brake mechanism which may be readily and easily applied to the running-gear of any ordinary farm-wagon, and which the driver can conveniently and readily operate with the same ease from the top of a high load as from the ordinary position; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the drawings, and pointed out in the appended claims.

In the accompanying drawings, Figure 1 represents a plan view of a wagon provided with my brake. Fig. 2 represents a side view of the same. Fig. 3 is a detail plan view, partly in section, of the brake mechanism.

Referring to the drawings by letter, A and B are respectively the front and rear axles of the wagon, and *a a* and *b b* the wheels thereon.

C is the reach, D the front hounds, E the tongue, and F the rear hounds, all of which are of the ordinary construction.

f is a pulley properly attached to the tongue and serving a purpose hereinafter explained.

G is a rectangular guide-frame secured transversely at its central part to and above the reach and rear hounds at their point of junction. The said frame is provided at its front edge with the upper and lower parallel metal plates *g g'* respectively, and running longitudinally rearward from the ends of said plates on each side are similar metal plates, *h h'*, the rear ends of the lower plates *h'* being connected by the transverse metal plate H.

I is a standard rising centrally from the plate H, and preferably made integral therewith, the said lug being provided with a suitably-

situated guide-opening, *i*. The upper and lower plates of the frame G are separated at their corners by the blocks J, preferably of wood.

K is the brake-bar, which projects between the plates *h h'* on each side, and has the brake-shoes *k k'*, of common construction and facing the rear wheels, secured to its ends. *k' k'* are guide-loops embracing the plates *h* on each side, and with their ends secured in the upper surface of the brake-bar, so that they control and equalize the movement of the opposite ends thereof, causing both shoes to move at an equal rate and press equally against the corresponding wheels. Standing rearwardly and centrally from the brake-bar is the guide-bar L, which passes through the guide-opening in the standard I, and is surrounded between said standard and the rear surface of the brake-bar by the coiled spring *l*. The front surface of the guide-bar is provided with a longitudinal central slot, in which is pivoted the rear end of a short link, M, the front end of which is pivoted between the arms of the bifurcated rear end of the lever N. The said lever is pivoted near its rear end between the front plates *g g'*, and has its front long arm, *n*, provided with a longitudinal slot, *o*, in which is journaled the pulley O.

O' is a pulley situated in a recess in the reach.

P is a rope attached at one end to the reach at a suitable point by an eyebolt or otherwise, passing thence around the pulley O from rear to front, thence forward and around the pulley on the reach, thence around the pulley on the tongue, and thence upward, being attached near its upper end at some point within easy reach of the driver.

The link M and lever N form together a toggle-joint, which forces the brake-bar rearward against the action of the coiled spring *l*.

It is evident that when the driver pulls upon the rope he draws the long arm of the lever N frontward and causes the toggle-joint, formed by the lever and link, to force the brake-bar rearward, and that when the driver releases the rope the coiled spring will return the brake-bar to its former position, with its front surface resting against the opposite front blocks between the plates.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. In a wagon-brake, the combination of the rectangular guide-frame constructed as described and secured upon the rear hounds, the brake-bar sliding between the side guide-plates of said frame, the guide-loops embracing the upper of said side guide-plates, the guide-bar extending rearward from said brake-bar and passing through an opening in a standard rising from the rear plate of the guide-frame, the coiled spring surrounding the guide-bar between the standard and the brake-bar, the toggle-joint formed by the lever pivoted to the front of said guide-frame and to the link connecting with brake-bar, and the rope actuating said toggle-joint, substantially as and for the purpose described.

2. The combination, with the guide-frame and brake-bar sliding within said frame, of the link M, pivoted to the front of said frame, the lever N, the pulleys O, O', and f, and the rope P, substantially as specified.

3. In combination with a wagon, and adapted to be secured upon the rear hounds thereof, the brake mechanism described, consisting of the rectangular frame having the upper and lower front and side plates and the rear plate

provided with a guide-standard, the brake-bar sliding between the side plates and having a guide-bar standing rearward through the guide-standard and surrounded by a coiled spring between said standard and the bar, the toggle-jointed lever pivoted in the front of the guide-frame, and the rope for operating same, all constructed substantially as and for the purpose described.

4. The guide-frame composed of the front plates g g', the side plates h h', and rear plate, H, provided with the perforated guide-standard I, and end blocks separating the upper and lower plates, in combination with the brake-bar sliding between the side plates and having the rear guide-bar, L, the lever N, pivoted to the front of the guide-frame and to the link M, connecting with the brake-bar, the pulley O in the outer end of the lever, the pulley attached to the reach, and the rope, substantially as and for the purpose described.

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

JUD SMITH.

Witnesses:

C. M. YOUNG, Jr.,
ELMER E. WARREN.