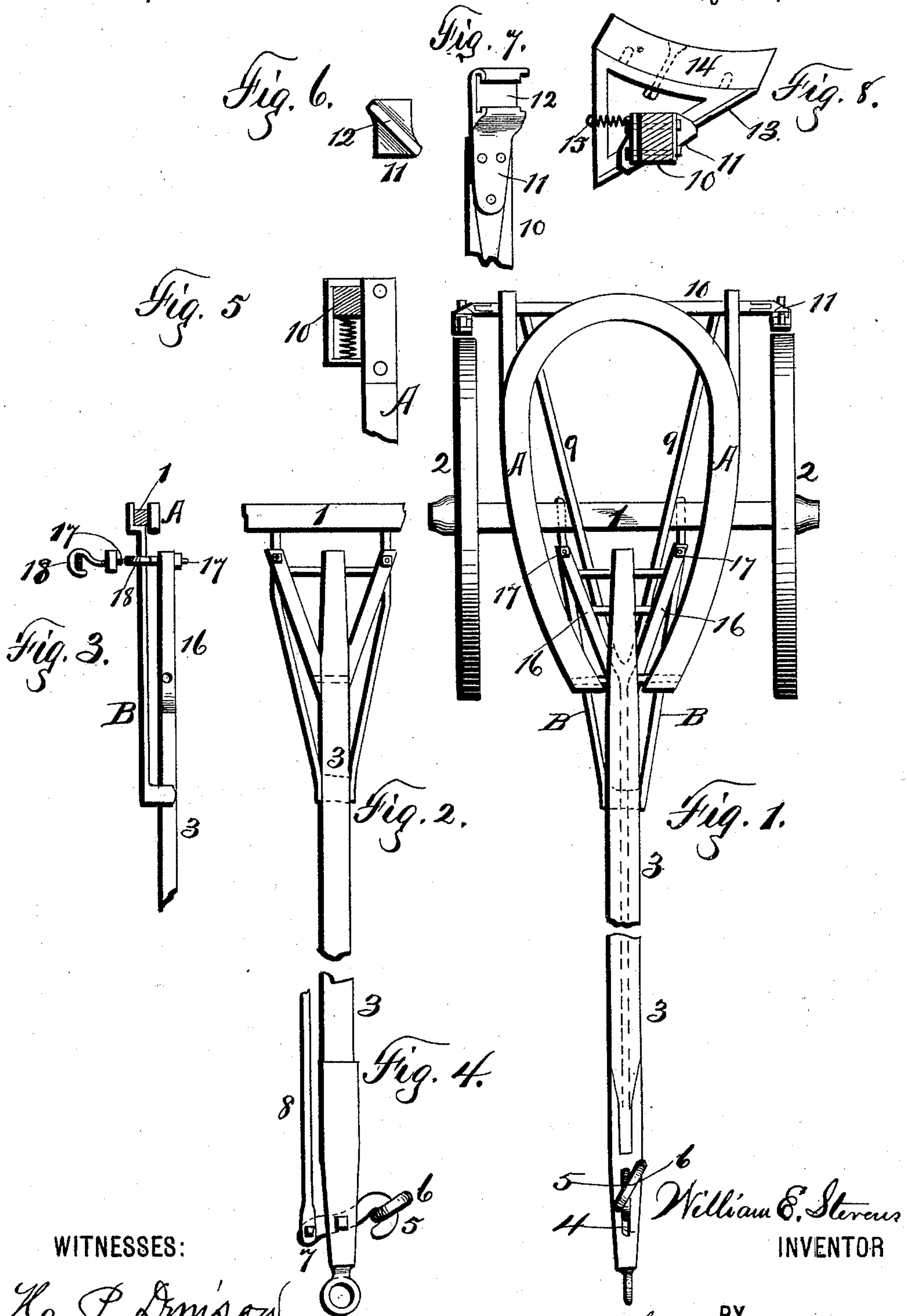


(No Model.)

W. E. STEVENS.
VEHICLE BRAKE.

No. 432,775.

Patented July 22, 1890.



WITNESSES:

W. P. Demison
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WILLIAM E. STEVENS, OF SOUTHWEST OSWEGO, NEW YORK.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 432,775, dated July 22, 1890.

Application filed May 15, 1890. Serial No. 351,900. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. STEVENS, of Southwest Oswego, in the county of Oswego, in the State of New York, have invented new and useful Improvements in Vehicle-Brakes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to vehicles, and especially to those which are provided with an adjustable spring-pole support and with brakes which are operated by the horses through devices connected to the pole to which the neck-yoke is directly connected.

My object is to improve the construction of the vehicle in these respects, thereby increasing its utility and convenience.

My invention consists in the several novel features of construction and operation hereinafter described, and specifically set forth in the claim annexed.

It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of the front wheels, hounds, and pole of a wagon with my improvements attached. Fig. 2 is a like view of the pole-supporting spring, part of the pole, and part of the axle. Fig. 3 is a side elevation of the construction shown in Fig. 2. Fig. 4 is a side elevation of the front end of the pole. Fig. 5 is a side elevation showing the connection of the brake-beam to the hounds and the springs holding the beam away from the wheel. Fig. 6 is a plan view of the brake-shoe holder upon each end of the brake-beam. Fig. 7 is a front elevation thereof. Fig. 8 is an enlarged side elevation of the brake-shoe, its holder, and of the end of the brake-beam.

A is the hounds, carried by the axle 1 and wheels 2, and 3 is the pole connected to the front end of the hounds upon a cross-bolt, as usual. I cut a mortise 4 in the front end of the pole, in which I pivot a hook-shaped crank-lever 5, the hook being adapted to receive the ring 6 of the neck-yoke, and the lower end 7 of this lever is pivotally connected to the back rod 8, which is carried

back under the pole, where it is connected to the bifurcated bars 9, which extend back through and are secured to the brake-beam 10. Upon the ends of this beam I secure my brake-shoe holder 11, provided upon its outer end with a slideway 12, disposed at an angle to the body of the holder, as shown in Fig. 6; and 13 is a triangular frame having one side provided with outward flanges, so that it fits freely in the slide, and having another side adapted to carry the brake-shoe 14 by the bolt-and-stud connection shown in Fig. 8 by the dotted lines; and 15 is a coiled spring secured to the brake-beam on either side of the frame and looped around the bottom thereof, so that when the wheels are rotated forward and the horses are holding back the brake-beam will be drawn toward the wheel, the friction will slide the frames upward in the slides, and the shoes will bite firmly against them; but when the wheels are rotated backward, although the brake-beam is then drawn toward them, the friction of the wheels upon the shoes will be reversed, which will draw the frames down in the slides, throwing the shoes away from the wheels and preventing them from biting against them, so that the brake will not become set when the team is backing the vehicle.

Futchells 16 are secured to pole in the usual manner, and are braced thereto by cross-rods, as shown, and they are also perforated vertically adjacent to their rear ends to receive bolts 17, provided with hooks 18 upon their lower ends, the upper ends being threaded.

B is my pole-supporting spring, of substantially U or V form, the rear ends fitting under the axle, the hooks fitting around them in front of the axle, the front being provided with a cross-piece, upon which the pole rests, and ears or other means to hold the pole in position upon the spring. The elevation of the outer end of the pole can be regulated by tightening or loosening the nuts on the hook-bolts, and the spring has its fulcrum bearing upon the hooks and axle.

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

The combination, with the brake-beam

connected by a draw and lever bar to the
front end of the pole, of a brake-shoe holder
secured upon each end of the brake-beam, a
slide on each holder, a frame fitting in said
5 slide, a brake-shoe secured to the frame, and
a spring connecting the frame to the brake-
beam.

In witness whereof I have hereunto set my
hand this 1st day of April, 1890.

WILLIAM E. STEVENS.

In presence of—

HOWARD P. DENISON,
C. W. SMITH.