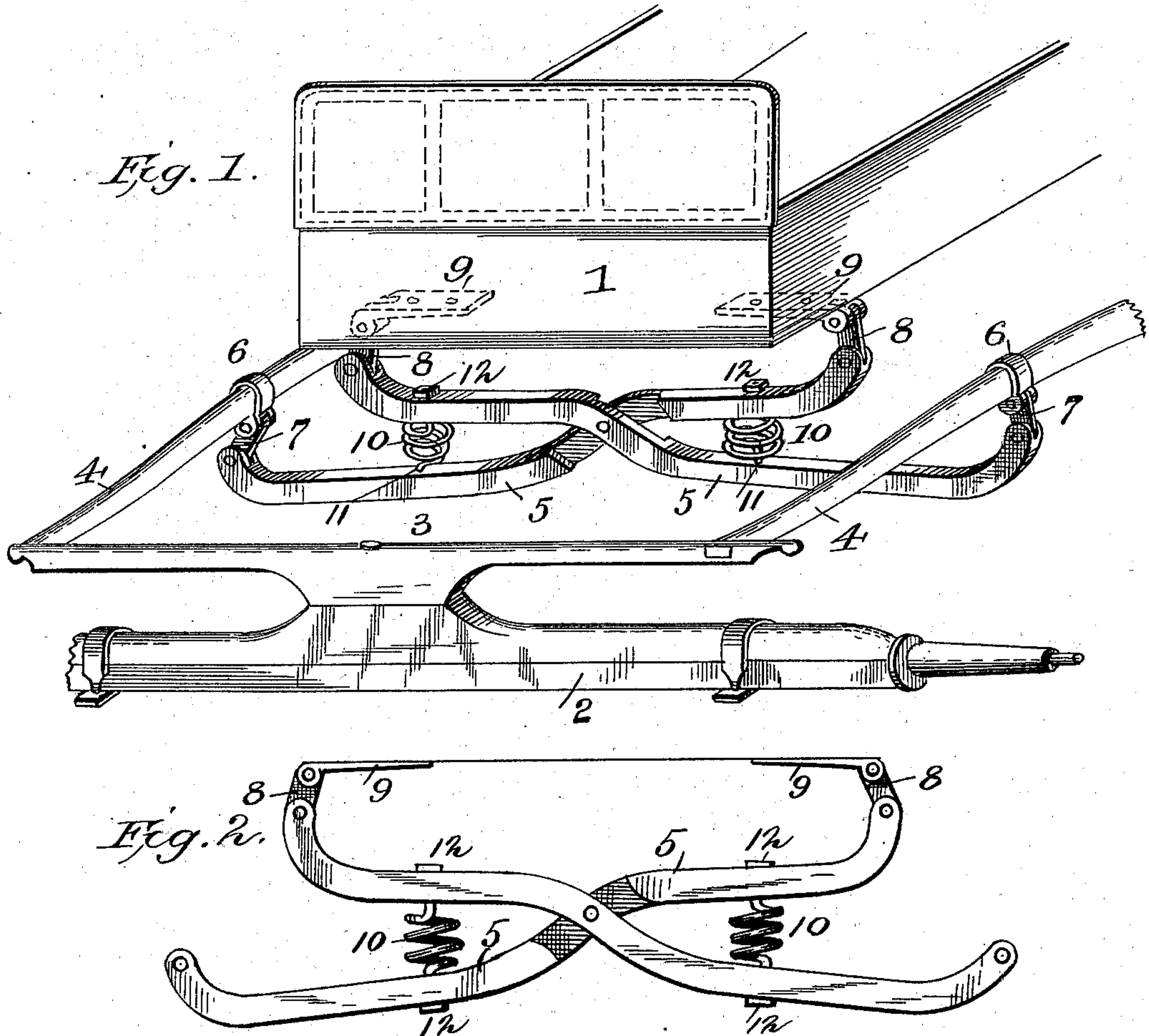


(No Model.)

H. T. RICHMOND.
VEHICLE SPRING.

No. 559,085.

Patented Apr. 28, 1896.



WITNESSES
F. L. Ouraud.
A. D. Smit.

INVENTOR
Henry T. Richmond
By H. B. Willson.
Attorney

UNITED STATES PATENT OFFICE.

HENRY T. RICHMOND, OF MALVERN, IOWA.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 559,085, dated April 28, 1896.

Application filed March 1, 1895. Serial No. 540,188. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. RICHMOND, a citizen of the United States, residing at Malvern, in the county of Mills and State of Iowa, have invented certain new and useful Improvements in Vehicle-Springs; 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.

My invention relates to vehicles, and more particularly to a spring for equalizing the weight supported by the vehicle, in order to insure at all times a perfect horizontal or level position of the vehicle-body.

The object of the invention is to provide simple and strong means for accomplishing this result and which may be applied to vehicles now in use at but a small cost.

With this object in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of my invention, showing it applied to a side-bar vehicle. Fig. 2 is a detail view of the equalizer removed from the vehicle.

1 denotes a vehicle-body; 2, the axle; 3, the bolster, and 4 the side-bars. These parts are of the usual and well-known construction.

My equalizer comprises two levers 5, pivoted to each other at their intermediate portions to form a cross. The lower ends of these levers are connected to the side-bars of the vehicle by means of clips 6, which have a link connection 7 with the lower ends of the levers. Pivoted to the upper ends of these levers are links 8, which are in turn pivoted to the straps 9, secured to the floor of the body. Springs 10 are interposed between the ends of these levers, and the ends of these springs project

through holes 11 in the levers and are formed with screw-threads to receive nuts 12, by means of which the tension of the springs may be adjusted.

It will be seen that should greater weight be placed in the vehicle on one side than on the other, owing to the connection of the two levers at their middle, the body of the buggy will not lean or cant toward one side, but will sink or lower in a perfect horizontal position. This is also true in a person alighting from or getting into a vehicle.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of the invention will be readily seen without requiring further explanation. I desire to state, however, that this equalizing device may be applied to bed-bottoms, and will retain the same always in a horizontal plane.

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

The combination with the side-bars of the running-gear and the body of a vehicle, of the equalizer comprising two levers pivoted to each other at intermediate portions to form a cross, of the coil-springs interposed between said levers at points on opposite sides of their pivotal point, the ends of said springs projecting through sets of vertically-disposed, alined holes in said intersecting levers and secured in place by threaded nuts, by which their tension may be varied, substantially as set forth.

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

HENRY T. RICHMOND.

Witnesses:

FRANK ROBBINS,
J. E. SKADAN.