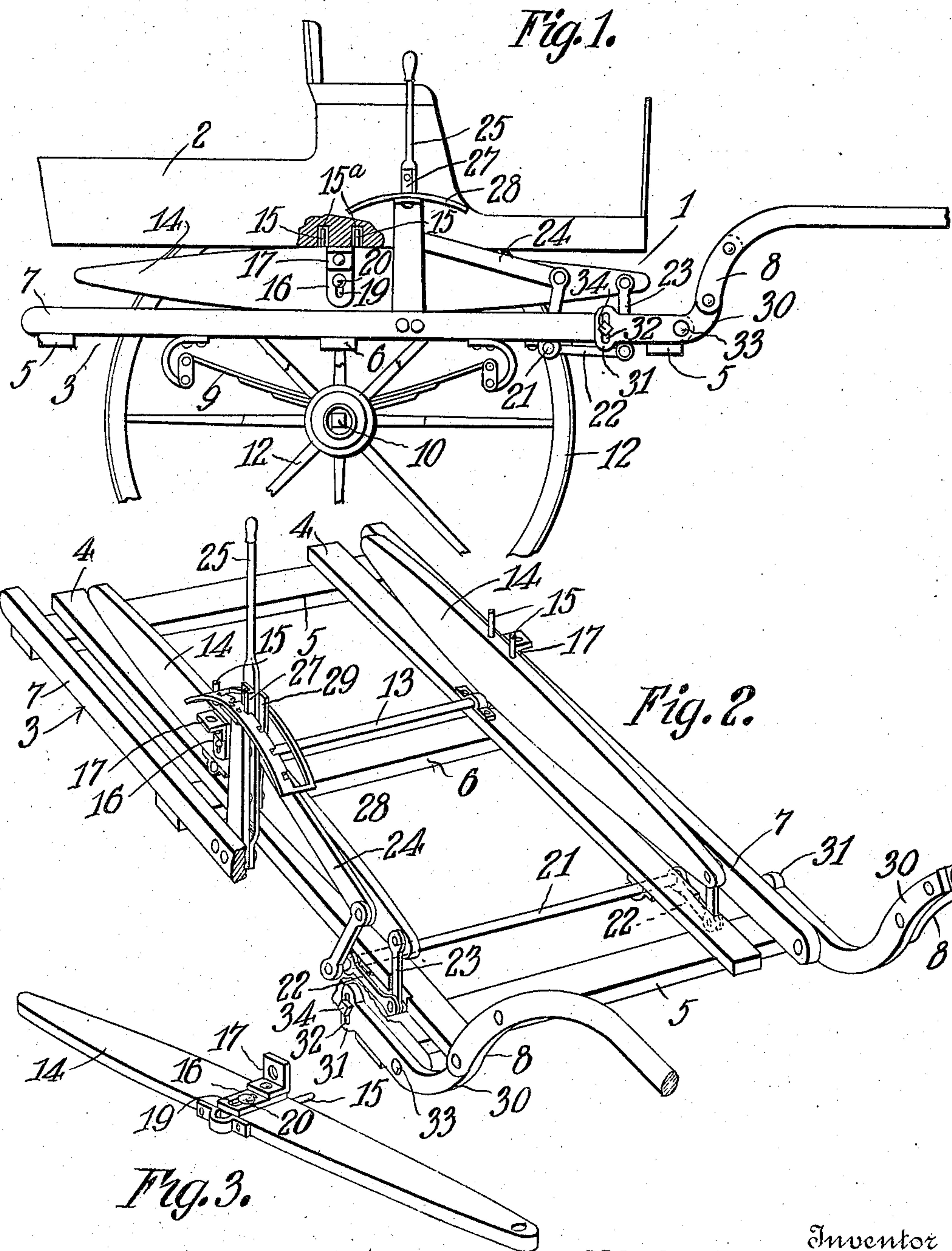


No. 894,603.

PATENTED JULY 28, 1908.

W. N. CLEVELAND.
DEVICE TO PREVENT HORSE MOTION IN CARTS.

APPLICATION FILED AUG. 19, 1907.



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UNITED STATES PATENT OFFICE.

WILLIAM N. CLEVELAND, OF DOVER, KENTUCKY.

DEVICE TO PREVENT HORSE MOTION IN CARTS.

No. 894,603.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed August 19, 1907. Serial No. 389,242.

To all whom it may concern:

Be it known that I, WILLIAM N. CLEVELAND, a citizen of the United States, residing at Dover, in the county of Mason and State of Kentucky, have invented certain new and useful Improvements in Devices to Prevent Horse Motion in Carts; 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.

This invention relates to improvements in devices to prevent horse motion in carts.

The object of the invention is to provide an attachment for carts or two-wheeled vehicles by means of which the objectionable horse motion will be entirely eliminated.

A further object is to provide a device of this character which will be simple, strong and durable in construction, efficient in operation, and which may be readily applied to various forms of two-wheeled vehicles.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a side view of a vehicle, showing the application of the invention thereto, parts of the vehicle being broken away to more clearly illustrate the construction and arrangement of the invention; Fig. 2 is a perspective view of the running gear with the body of the vehicle removed; and Fig. 3 is a detail perspective view of one of the rockers, upon which the body of the vehicle is adapted to rest.

Referring more particularly to the drawings, 1 denotes the vehicle, which is here shown as consisting of a body 2 mounted upon a suitable supporting frame 3, comprising outer side bars 4, which are connected adjacent to their opposite ends by cross bars 5 and midway their ends by a central cross bar 6. Connected to the projecting ends of the cross bars 5 and 6 and extending parallel to the longitudinal side bars 4 are shaft bars 7 to the forward ends of which are pivotally and adjustably connected the inner ends of the shafts or thills 8 of the vehicle.

To the bars 7 are connected suitable springs 9, to which are secured the axle provided with supporting wheels 12. Secured to the side bars 4 immediately above the central cross bar 6 is a rocker shaft 13,

on each end of which is pivotally-mounted a rocker 14. The rockers 14 are disposed immediately above and adjacent to the outer edges of the side bars 4. The rockers 14 are here shown and are preferably in the form of elongated elliptical-shaped bars. Secured to the upper sides of the rockers 14 and projecting a suitable distance above and on each side of the center of the same are pairs of body-engaging pins 15. These pins are adapted to loosely engage recesses or sockets 15^a formed in the bottom side rails of the vehicle body. Arranged on the outer side of each of the rockers 14 and midway between the ends of the same are body fastening devices. Said devices are here shown and are preferably in the form of a pair of plates 16 and 17 pivotally-connected together. The lower plate 16 is provided with a vertically-disposed slot or elongated opening 19, through which is passed a bolt 20, by means of which said plates are loosely connected to the rockers 14. The upper fastening plate 17 is preferably bent at right angles and bolted or otherwise secured to the body of the vehicle, thereby loosely holding or fastening the same in rocking engagement with the rockers.

In order that the position of the rockers 14 may be regulated to maintain a substantially level position for the body of the vehicle when used with horses of different heights or when traveling up or down steep grades, a suitable adjusting mechanism is provided. Said mechanism is here shown and is preferably in the form of a crank shaft 21 journaled in suitable bearings on the under side of the side bars 4 of the vehicle frame and having at its ends forwardly-projecting crank arms 22 connected by short links 23 with the forward ends of the rocker bars 14. The cranked end of the shaft 21 is connected by a link or rod 24 with a suitable operating lever 25, which is pivotally mounted on the inner side of one of the shaft bars 7, and is provided with a fixed pawl 27. The pawl 27 is adapted to be engaged with a segmental rack 28 secured to said shaft bar, as shown. The pawl 27 on said lever is held in engagement with the rack 28 by means of a spring 29. When the vehicle is traveling on an up grade, the lever 25 is thrown forwardly, thereby lowering the front end of the rocker bars 14 and the body of the vehicle mounted thereon, thus bringing said body to a substantially level position. When traveling on a down grade, the lever 25 is thrown in a re-

verse direction, thereby lowering the rear ends of the rockers and the vehicle body, as will be understood.

In addition to the rocker adjusting mechanism I also preferably provide means whereby the shafts or thills of the vehicle may be adjusted to accommodate the same to horses of different heights. In order to accomplish this adjustment of the thills, I provide substantially right angular-shaped connecting bars 30, one of which is bolted or otherwise secured to the inner end of each of the thills, as shown. On the inner end of each of the bars 30 is formed a rectangular plate or enlargement 31, in which is formed a segmental slot 32.

The bars 30 are pivotally-connected to the forward ends of the shaft bars 7, as at 33, while the enlarged slotted inner ends of the bars 30 are adjustably secured to the shaft bars by a set screw 34, so that when the thills are raised or lowered to the desired extent on their pivot bolts 33 they may be rigidly held in position by the set screws 34, as will be understood, thus accommodating the thills to the size of the horse which will materially assist in the proper adjustment of the rockers 14 to maintain the body of the vehicle in a substantially level position in ascending or descending hills.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

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

1. A device for preventing horse motion in carts comprising a rocker shaft secured to the supporting frame of the cart, a pair of elongated elliptical-shaped rocker bars pivotally mounted on said shaft, upwardly-projecting body engaging pins arranged on said rocker bars to loosely engage the body of the vehicle, pairs of pivotally connected fastening plates loosely connected to the rocker

bars and to the vehicle body, whereby the latter is loosely fastened to the rocker, a crank shaft pivotally mounted on the frame of the cart, forwardly-projecting crank arms on said shaft, links to connect said arms to the forward ends of said rocker bars, an operating lever connected to said crank shaft, and a rack to hold said lever in its adjusted position, substantially as described.

2. A device for preventing horse motion in carts comprising a pair of elongated, elliptical-shaped rocker bars pivotally-mounted on the supporting-frame of the vehicle, means to loosely connect the body of the vehicle to the upper sides of said rocker bars, a crank shaft connected to the forward ends of said rocker bars, an operating lever connected to said crank shaft, whereby said rocker bars may be tilted forwardly or rearwardly, shaft bars on said supporting frame, right angularly-formed connecting bars secured to the inner ends of the vehicle shafts, slotted enlargements on the inner ends of said bars, bolts to pivotally secure said connecting bars to the forward ends of said shaft bars, and a set screw to engage the slotted enlargement on said connecting bars to hold the same and the shafts in adjusted positions, substantially as described.

3. A device for preventing horse motion in carts comprising a pair of elongated, elliptical-shaped rocker bars pivotally-mounted on the supporting frame of the vehicle, means to loosely connect the body of the vehicle to the upper sides of said rocker bars, a crank shaft connected to the forward ends of said rocker bars, a pivotally mounted hand operated lever, an operating rod to connect said lever with said crank shaft whereby the latter is operated to tilt said rocker bars forwardly or rearwardly, shaft bars secured to said supporting frame, shafts pivotally connected near their inner ends to said bars, and means to adjustably secure the inner ends of the shafts to the supporting bars, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM N. CLEVELAND.

Witnesses:

J. ELGIN ANDERSON,
W. F. LANG.