

(No Model.)

L. F. CASTOR.

ROAD CART.

No. 396,392.

Patented Jan. 22, 1889.

FIG. 1.

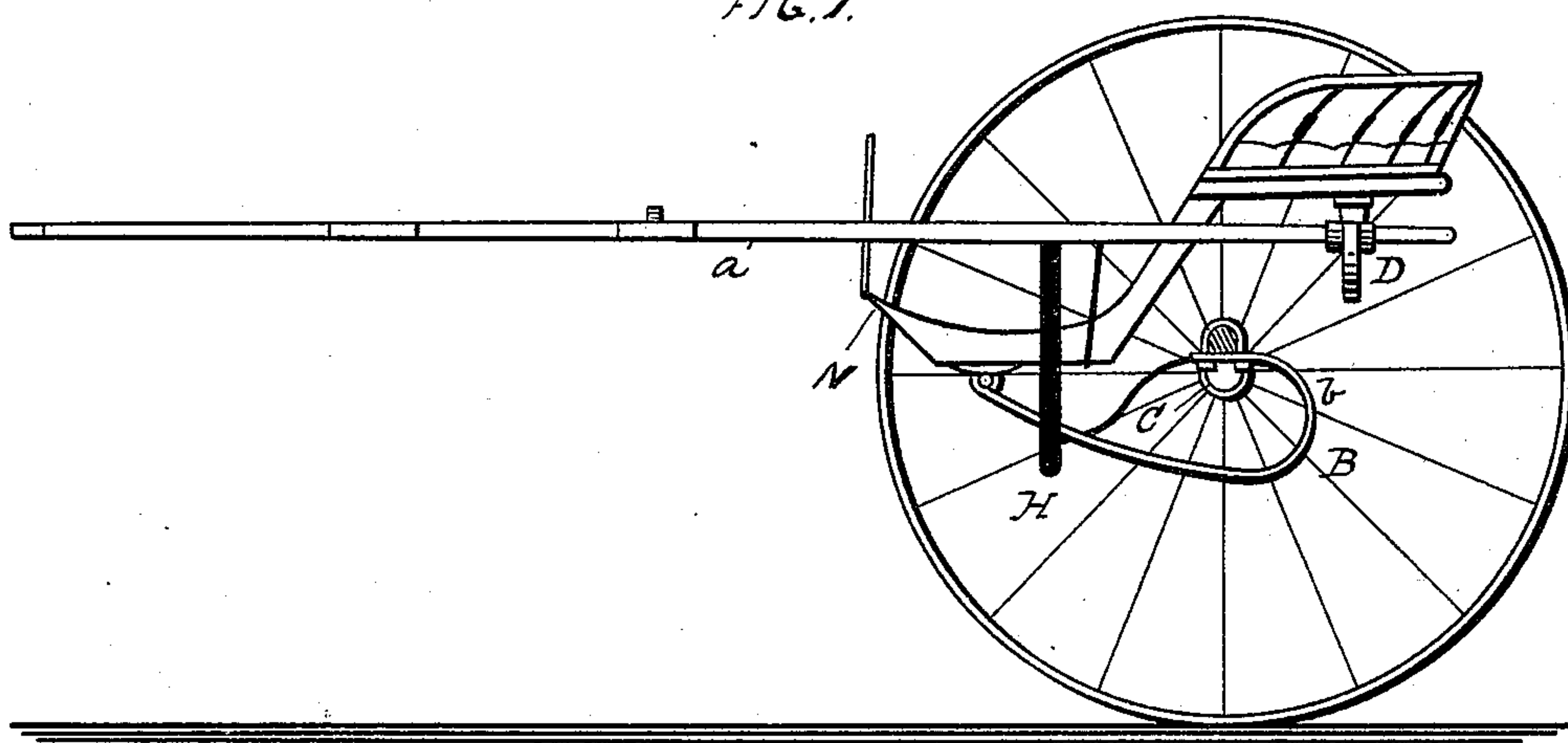


FIG. 2.

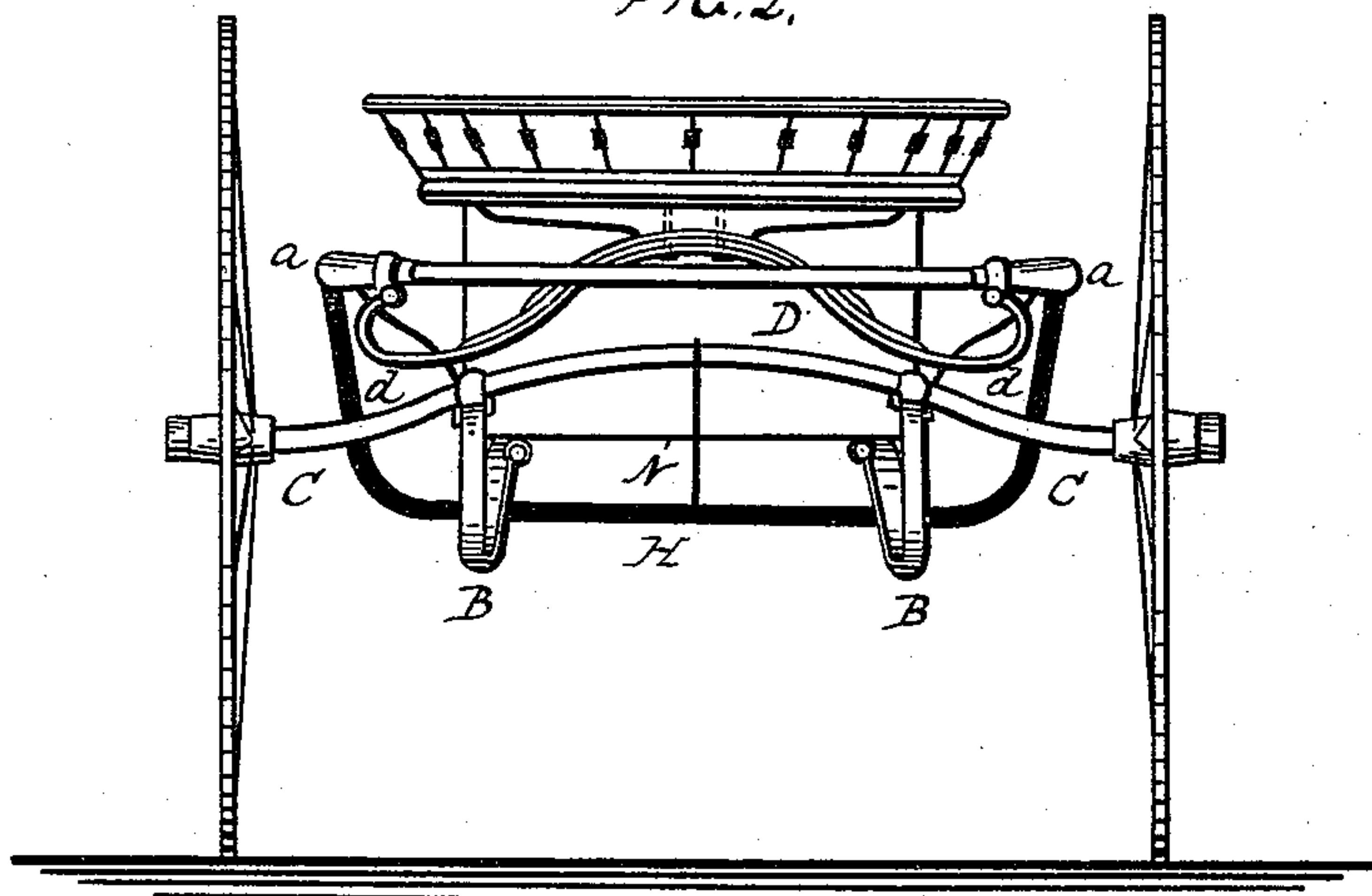


FIG. 3.

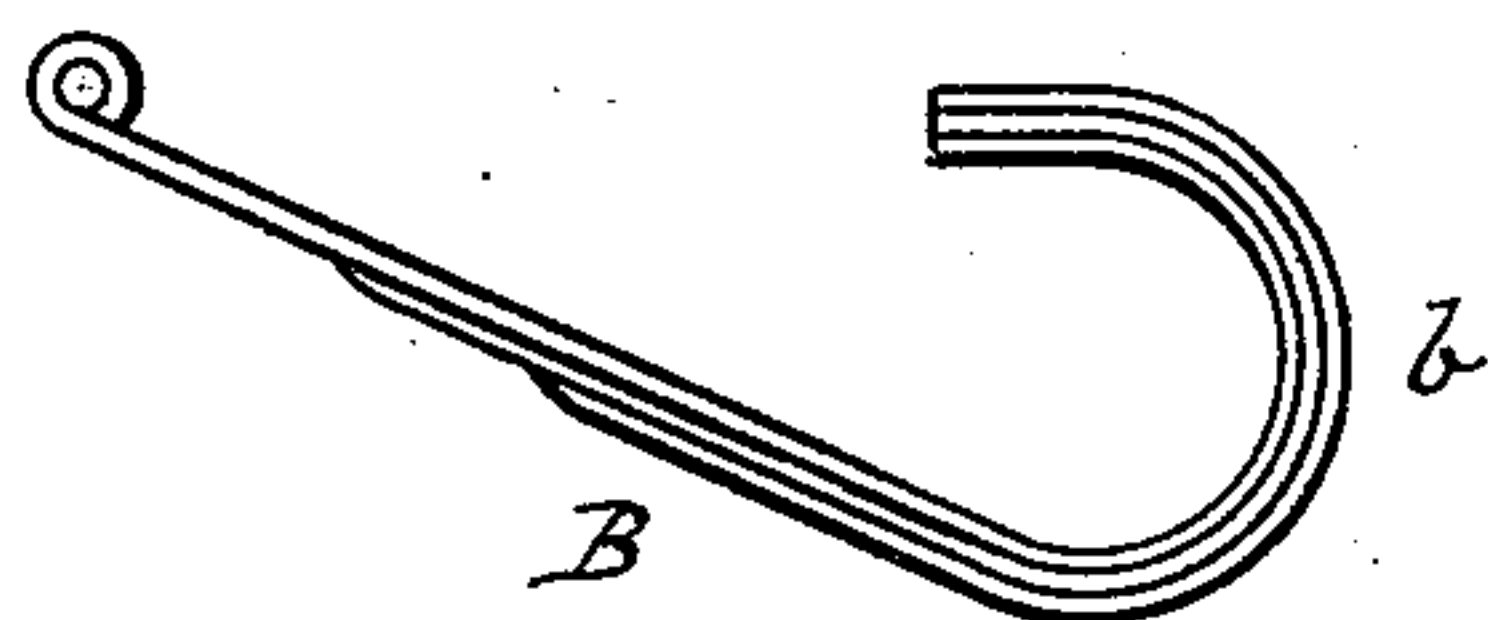


FIG. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

LEWIS F. CASTOR, OF PHILADELPHIA, PENNSYLVANIA.

## ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 396,392, dated January 22, 1889.

Application filed July 13, 1888. Serial No. 279,830. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS F. CASTOR, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Road-Carts, of which the following is a description sufficiently clear and exact to enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the drawings herewith, making a part of this specification.

This invention relates to such improvements in road-carts as apply directly to Letters Patent granted to me February 26, 1884, No. 294,009; and the invention consists in the use of peculiarly-constructed springs arranged to receive and support the weight of the body of the cart.

Figure 1 in the accompanying drawings is a side elevation of my improved cart, shown with one of the wheels removed in order to expose the exact positions occupied by the springs. Fig. 2 is a rear view showing the relative location of the springs. Fig. 3 is a detached view of one of the hook-shaped springs used in front. Fig. 4 is a similar view of the spring used in the rear.

Similar letters refer to like parts.

By referring to the drawings it will be seen that I still retain the general construction of my road-cart secured to me by the Letters Patent cited above—namely, the continuing of the shafts of the vehicle to the rear of the body and the connection between their rear ends by means of a bar; also the use of the dropped front bent-bar connection between the shafts directly under the body.

In the construction of my road-carts heretofore, in addition to the use of the transverse spring D for supporting the rear portion of the body N, and which was so constructed as to simply reach between and be secured to the shafts *a a*, in order to supply elasticity for the seat, rigid springs were used to connect the forward part of the body N with the dropped bent bar H.

There are two special features involved in this improvement, and they consist in the use of peculiar-shaped springs that are substituted for those already described.

The first consists in the use of a transverse spring, D, which supports the rear of the body, and is connected to the shafts *a a* in any well-known manner. This spring is so constructed that a single leaf, *d*, shall extend below and beyond the point of connection with the shafts *a a*, in order to furnish considerably more spring motion for the seat portion of the cart.

The second point of the invention consists in the use of two hook-shaped springs, B B, the front end of each of which is suitably connected to the front portion of the body of the cart, while the rear or curved ends, *b b*, thereof are fastened in any well-known manner to the axle C—one to each side of the body; or a single hook-shaped spring may be used directly under the center of the cart, in the manner described, where the road-cart is intended to carry one person.

By means of the curved or hook-shaped extension *b*, as described, in each of the springs B B increased action is imparted to said springs and an elasticity or spring produced which compensates for additional weight or obstruction which may be imposed upon the cart. The front end of the body N being suspended from the axle C by means of the hook-shaped springs B B directly from and independent of the shafts *a a*, and the peculiar formation of the rear transverse spring, D, for supporting the seat portion of the cart, giving the proper amount of spring action, insures the cart against any horse motion and renders as near complete ease and safety as it is possible to attain.

The length of the hook-shaped springs B B and the number of leaves used in their construction, together with the amount of curve to be given to the transverse spring D, will depend largely upon the work intended for the cart to perform, it having been found practicable to considerably increase the stiffness of the springs where the cart is intended to hold two persons and besides compelled to follow the horse steadily.

The use of such well-known devices as straps or brace-irons, necessary at such points that will prevent any displacement of the body from its proper position, and at the same time



render the cart sufficiently strong, I do not claim, like parts now being used in road-carts widely different from the one explained.

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

The combination, in a road-cart, of the body N, the rear end or seat portion of which is supported by means of a transverse spring,  
10 D, rigidly secured to the thills *a a*, which pass to the rear of the axle C, and the hook-shaped springs B, the rear curved ends clipped to the

axle C, and the forward ends of which are suitably connected to the under side of the front of the foot portion of the body N, substantially as specified. 15

In testimony that I claim the foregoing as my invention I have subscribed my name in the presence of two witnesses.

LEWIS F. CASTOR.

Witnesses:

LEWIS F. BROUS,  
WM. B. HILT.