(No Model.)

3 Sheets—Sheet 1.

H. J. MILLER.

ROAD CART.

No. 371,090. Patented Oct. 4, 1887.

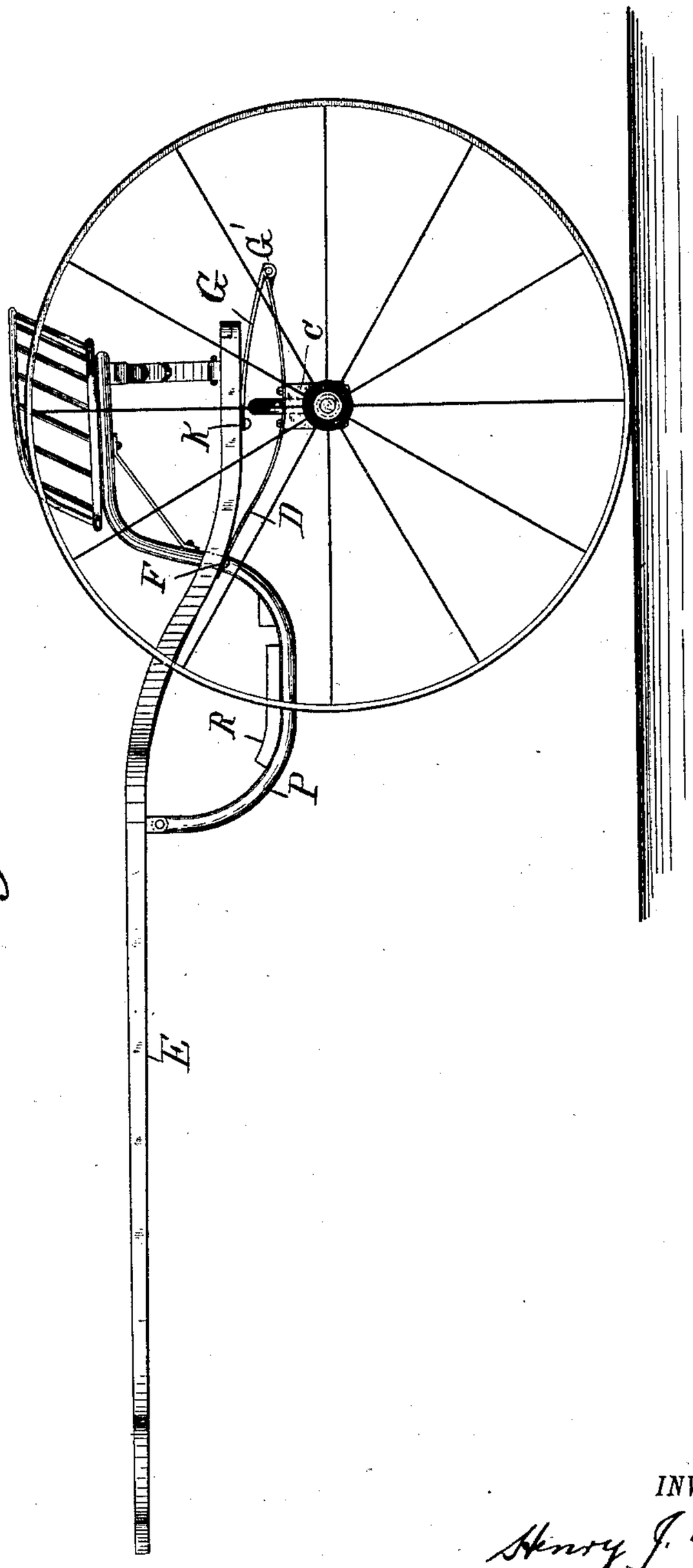

Fig. 1.

WITNESSES:

Gabriel J. W. Eglestez.

Edward Steer.

INVENTOR

Henry J. Miller

BY Knight Bros

ATTORNEYS

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H. J. MILLER.

ROAD CART.

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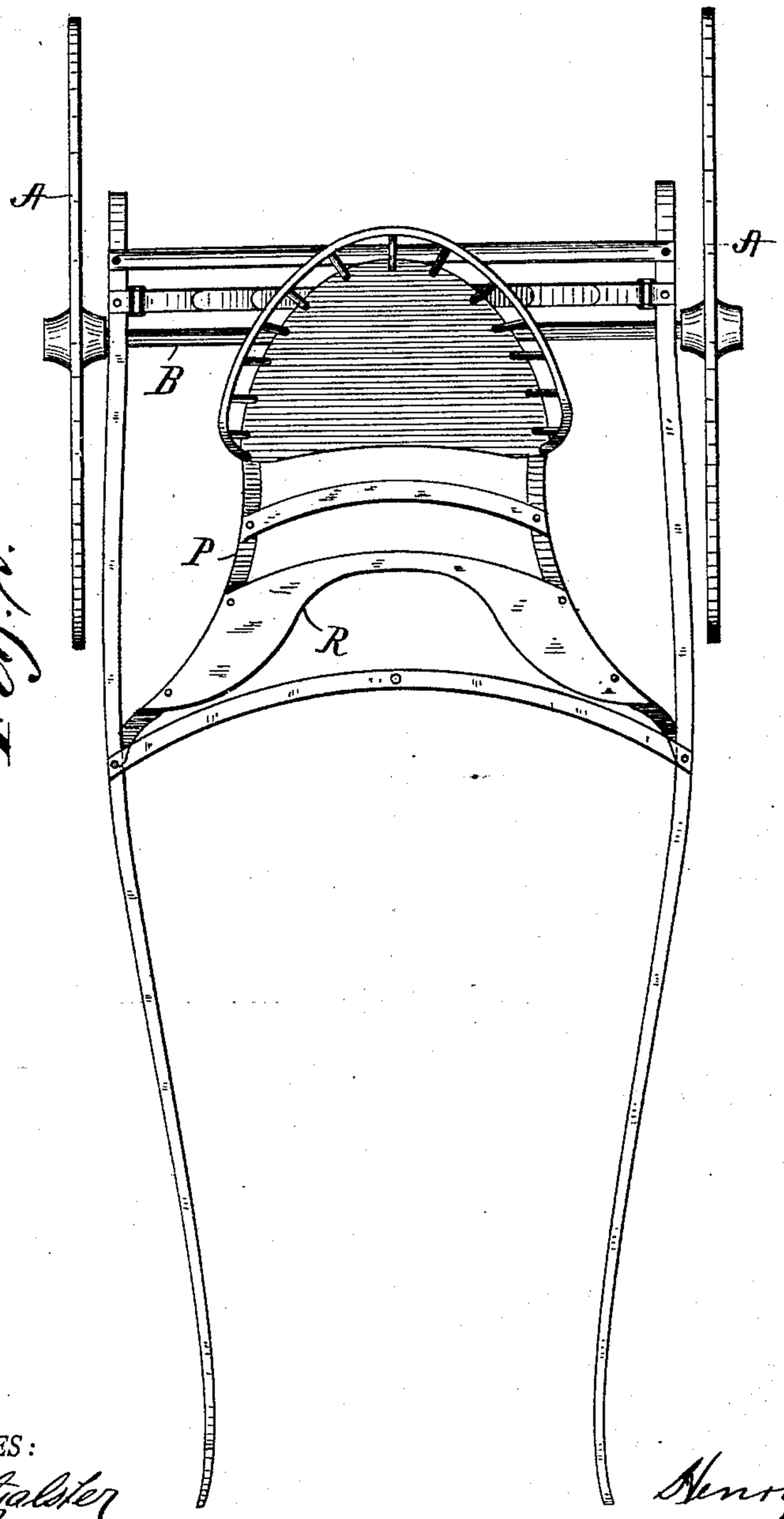

WITNESSES:

Gabriel J. W. Galster

Edward Stein

INVENTOR

Henry J. Miller

BY Knight Bros

ATTORNEYS

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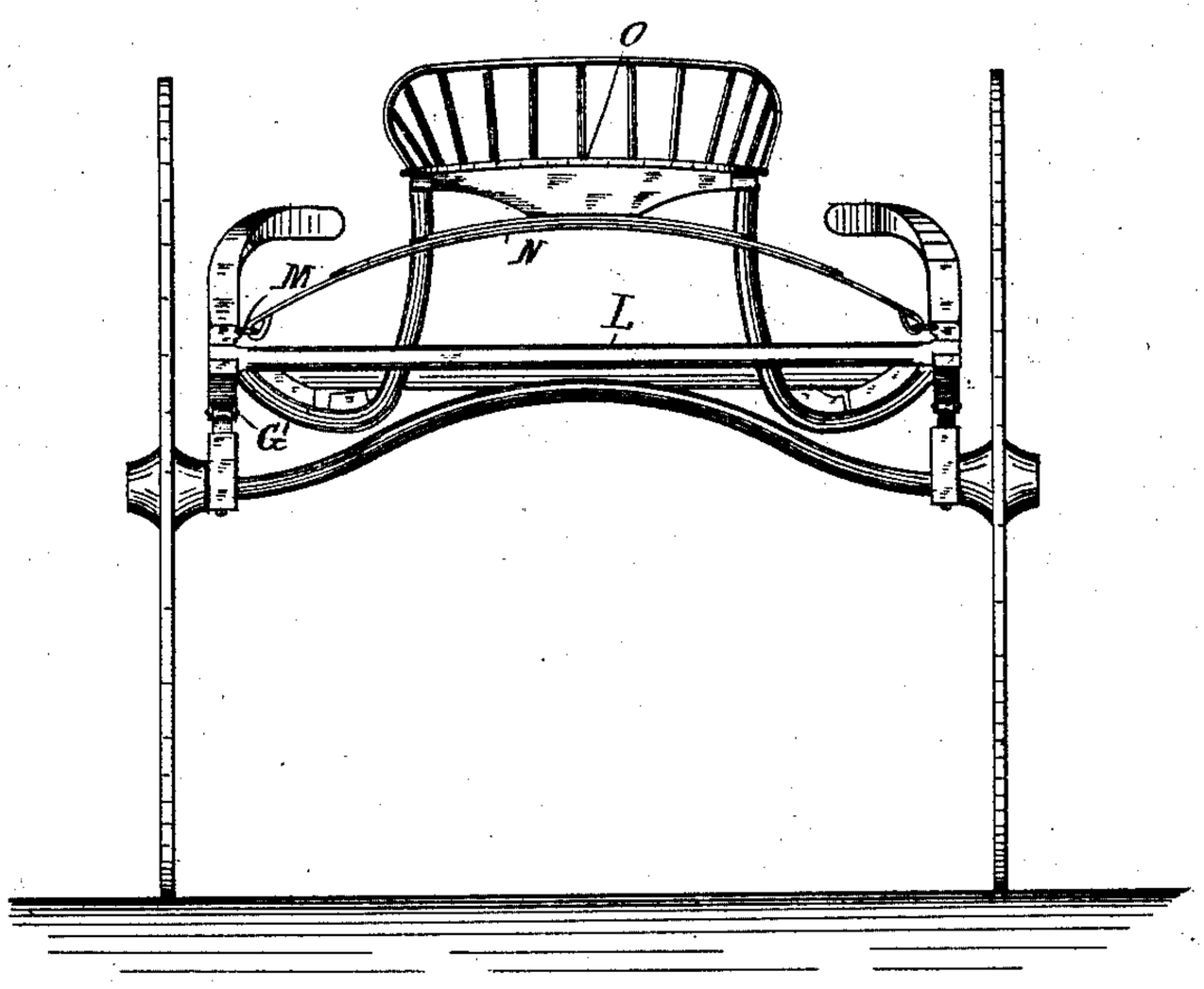
H. J. MILLER.

ROAD CART.

No. 371,090. Patented Oct. 4, 1887.

Fig. 4.

Fig. 3.



WITNESSES:

Gabriel J. W. Galsterz.

Edward Stier.

INVENTOR

Henry J. Miller

BY Knight Bros

ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY J. MILLER, OF GOSHEN, NEW YORK.

ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 371,090, dated October 4, 1887.

Application filed September 28, 1886. Serial No. 214,706. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. MILLER, a citizen of the United States, residing at Goshen, in the county of Orange and State of New York, have invented a new and useful Improvement in Road-Carts, Sulkies, or other Vehicles, of which the following is a specification.

My invention relates more particularly to what is known as a "single road-cart," or a cart adapted in size and structure for the use of a single person only, although it may be applied, with slight modifications in construction, to a phaeton-cart and to other vehicles having a larger seat than the single road-cart above mentioned.

The objects of my invention are primarily to construct a cart which will have a spring or springs for supporting the seat, so as to make a more comfortable vehicle to ride in than the ordinary road-cart now in use; and, secondly, to provide a brace or braces for keeping the seat in its proper relative position, and also for partly supporting the same, as will be described; and, thirdly, to provide springs which seat upon the axle of the vehicle and support the rear ends of the shafts, said springs being each composed of two branches having a relative longitudinal movement for the purpose of reducing the effect of any shock or jar to the vehicle occasioned by the said vehicle coming in contact with any stone or other unevenness upon the road, or at least of reducing the shock or jar to a minimum, and thereby rendering it comparatively harmless.

The other objects of my invention will be hereinafter particularly referred to, and pointed out in the claims.

Referring to the accompanying drawings, which form a part of the specification, Figure 1 is a side elevation of my improved road-cart. Fig. 2 is a plan view. Fig. 3 is an end elevation, looking from the rear. Fig. 4 is a detail view.

In the drawings, A A represent the two wheels connected by the axle B. Upon suitable bearings, C, are arranged and attached the lower branches of my springs D. The fore ends of these springs D are attached to the shafts E at points F. The upper branches, G, of these springs are connected to the lower branches at the rear, and are so arranged as to have a relative sliding movement longitudinally between the upper and lower branches of the springs. The object of this is, as before stated, to render the vehicle less liable to the disagreeable effects of shocks and sudden jars occasioned by any impediment in the roadway, the sliding movement between the upper and lower branches of the springs being sufficient to take up and neutralize any unevenness of motion on the part of the wheels. In the drawings I have shown the upper branches of the springs as provided with ears G', which fit over the rear ends of the lower branches, and with pins H, which extend through the said ears and the longitudinal slots or openings arranged in the lower branches of the springs. This is illustrated in Fig. 3 and in detail in Fig. 4. The longitudinal movement, however, may be secured in other ways, and I do not limit myself to the exact means shown. The upper branches of these springs are attached to the shafts at points K, and the rear ends of the shafts are connected together by a cross-bar, L. This latter constitutes a brace as well as a connection between the shafts, and I consider it a very important and valuable feature of my invention.

Near the rear ends of the shafts are secured rings M, to which are attached the ends of a spring, N, which curves upwardly and supports a centrally-located seat, O.

Attached to each side of the seat are braces P, which extend downwardly and forwardly, and finally upwardly to the shafts, to which they are pivotally connected. The braces P also serve to support the seat to some extent, and are valuable in that connection. Midway of these braces and between their horizontal portions I extend suitable pieces, which constitute foot-rests R for the feet of the occupant of the vehicle.

The improvements in construction which I have described aim at lightness, durability, and comfort, as well as economy in manufacture, which desirable results I have obtained to a higher degree in my road-cart than any similar vehicle hitherto produced.

As before stated, I may apply my invention to other vehicles beside road-carts.

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

1. In a road-cart or other vehicle, the com-

bination of the transverse spring attached at its ends to the shafts and supporting a centrally-located seat, the said shafts resting upon other springs, as shown and described.

2. In a road-cart or other two-wheeled vehicle, the springs for supporting the shafts, constructed and arranged substantially as shown and described, in combination with said shafts, the transversely-arranged spring extending between and attached to them, the centrally-located seat upon said spring, and the downwardly and forwardly extending braces and supporters connected directly to the seat and pivotally to the shafts, all arranged substantially as and for the purposes set forth.

3. In a road-cart or other two-wheeled vehicle, the combination of the springs arranged parallel with the length of the vehicle, and whose lower branches are rigidly attached to the axle and shafts of the vehicle, and whose upper branches are attached to the shafts and are flexibly connected to the lower branches in such a manner as to have a sliding longitudinal movement therein.

4. In a road-cart or other two-wheeled vehicle, the combination of the springs arranged parallel with the length of the vehicle, the lower branches of said springs being provided with loops or openings at their rear end, with the upper branches provided with ears which fit over the ends of the lower branches, and are provided with bolts or bars which extend through the ears and the loops aforesaid to provide for a relative longitudinal movement between the upper and lower branches of the springs, substantially as and for the purposes set forth.

5. In a road-cart or other two-wheeled vehicle, the combination of the rearwardly and downwardly extending shafts connected rigidly together at their rear ends by means of the cross-bar, as shown, said shafts being supported by springs located parallel therewith, both springs consisting of a long and short branch, and each branch being attached separately to the aforesaid shafts, as and for the purposes set forth.

HENRY J. MILLER.

Witnesses:
C. W. COLEMAN,
WILLIAM HARDENBERGH.