

(No Model.)

N. P. ANDERSON.

ROAD CART.

No. 288,965.

Patented Nov. 27, 1883.

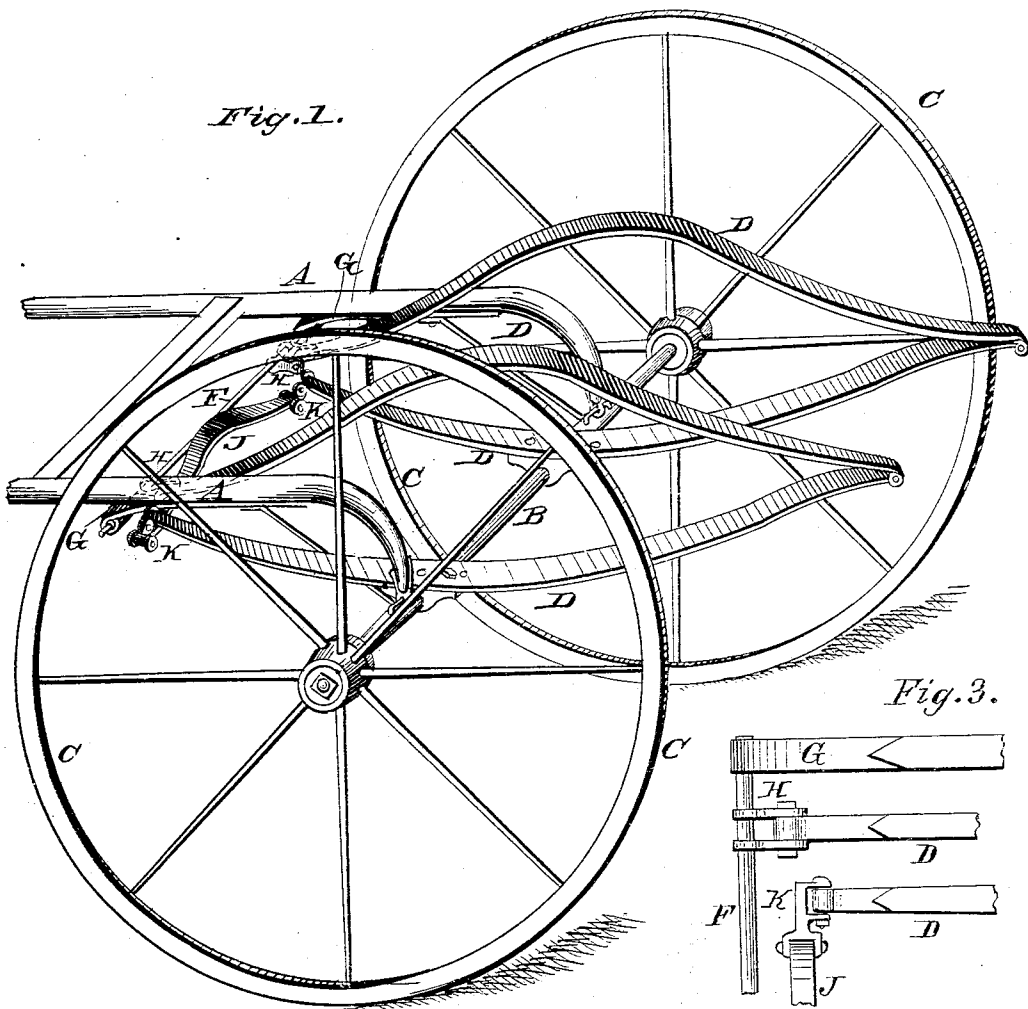


Fig. 3.

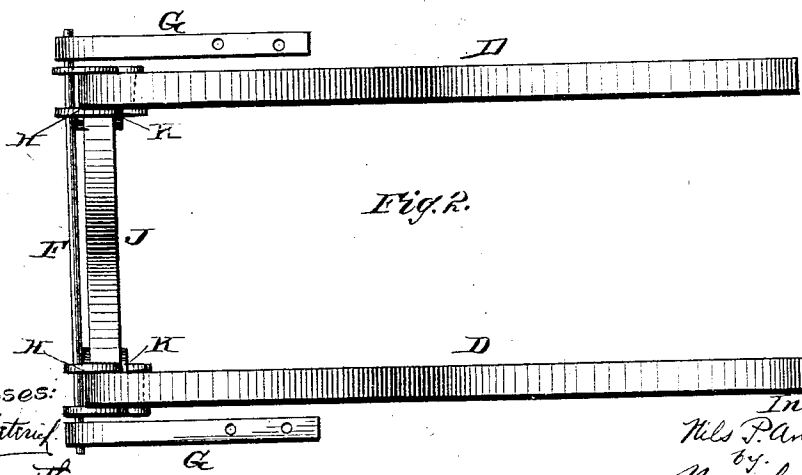
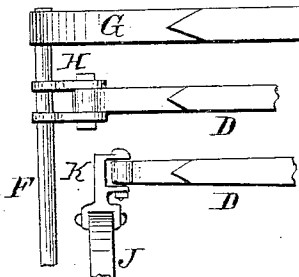


Fig. 2.

Witnesses:

Phil. Dutton
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Inventor:

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by
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UNITED STATES PATENT OFFICE.

NILS P. ANDERSON, OF MOLINE, ILLINOIS.

ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 288,935, dated November 27, 1887.

Application filed August 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, NILS P. ANDERSON, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Road-Carts; and I do hereby 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to improvements in road-carts, and pertains more especially to a certain novel construction and arrangement of the springs thereof, for the purpose of obtaining ease and comfort in riding thereon, and to prevent irregularities in the motion of the horse from being communicated to the occupant of the vehicle.

Figure 1 is a perspective view of the vehicle embodying my invention. Fig. 2 is a detached view of my springs, showing their relative positions and mode of mutual attachment. Fig. 3 is a detached plan of the forward attachment of the side springs, D.

A A are the usual thills, attached to the axle B, the latter supported on the carrying-wheels C C.

D D are side springs, counterparts of each other, attached transversely to the axle B, and having their front ends open.

F is a cross-rod pivoted at each end in the free ends of the springs G G, which latter are suitably fastened, respectively, at their rear ends to the underside of the thills A, the pivoted or free end of the springs G projecting forward and hanging slightly below the thills. At the proper localities on the rod F are rigidly attached the clips H H, in the rear end of which is pivotally attached, respectively, the front end of the upper half of the springs D. The front ends of the lower half of the springs D are bent laterally inward sufficiently to clear the upper portion of the springs D in the vertical action of the front ends of such springs, as hereinafter described. A transverse half-elliptic spring, J, having its convex side upward, connects the front ends of the lower halves of the springs D. The connection of the cross-spring J to the springs D is by a double clip, K, having two seats therein at

right angles to each other, in one of which seats is pivotally attached the end of the spring D, and in the other similarly attached the adjacent end of the spring J. The front end of the body of the vehicle is suitably affixed upon the spring J, and the rear end of such body upon the springs D.

In the operation of my invention the front ends of the springs D, being disconnected, are free to move independent of each other. Thus the remittent motion of the horse, being communicated to the axle B, is largely, if not wholly, lost before extending to the body of the vehicle.

By the use of the open ends of the springs D, attached as aforesaid, I am enabled to use whole springs under the body of the vehicle without the rigidity of the usual whole spring. In addition to the above, each front end of the springs D has two independent flexible attachments, by means whereof the motion of either half of the spring D is transmitted in a less degree to the opposing half of such spring, whereby the body of the vehicle is relieved of all jars or jerks and rendered comfortable and agreeable in use.

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

1. The springs D, having the front ends of their lower halves connected laterally, and each half of each spring D having a flexible forward connection independently of the other half of such spring, whereby the movement of the front end of each half of each spring D is not communicated to the opposing half of such spring, substantially as shown, and for the purpose described.

2. The springs D, provided, respectively, with open front ends, in combination with the springs G, rod F, and spring J, substantially as shown, and for the purpose specified.

3. The springs G, flexibly connected to the front end of the upper half of the springs D, respectively, in combination with the springs D and spring J, substantially as shown, and for the purpose mentioned.

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

NILS P. ANDERSON.

Witnesses:

CHAS. G. CARLSON,
ANDREW FRIBERG.