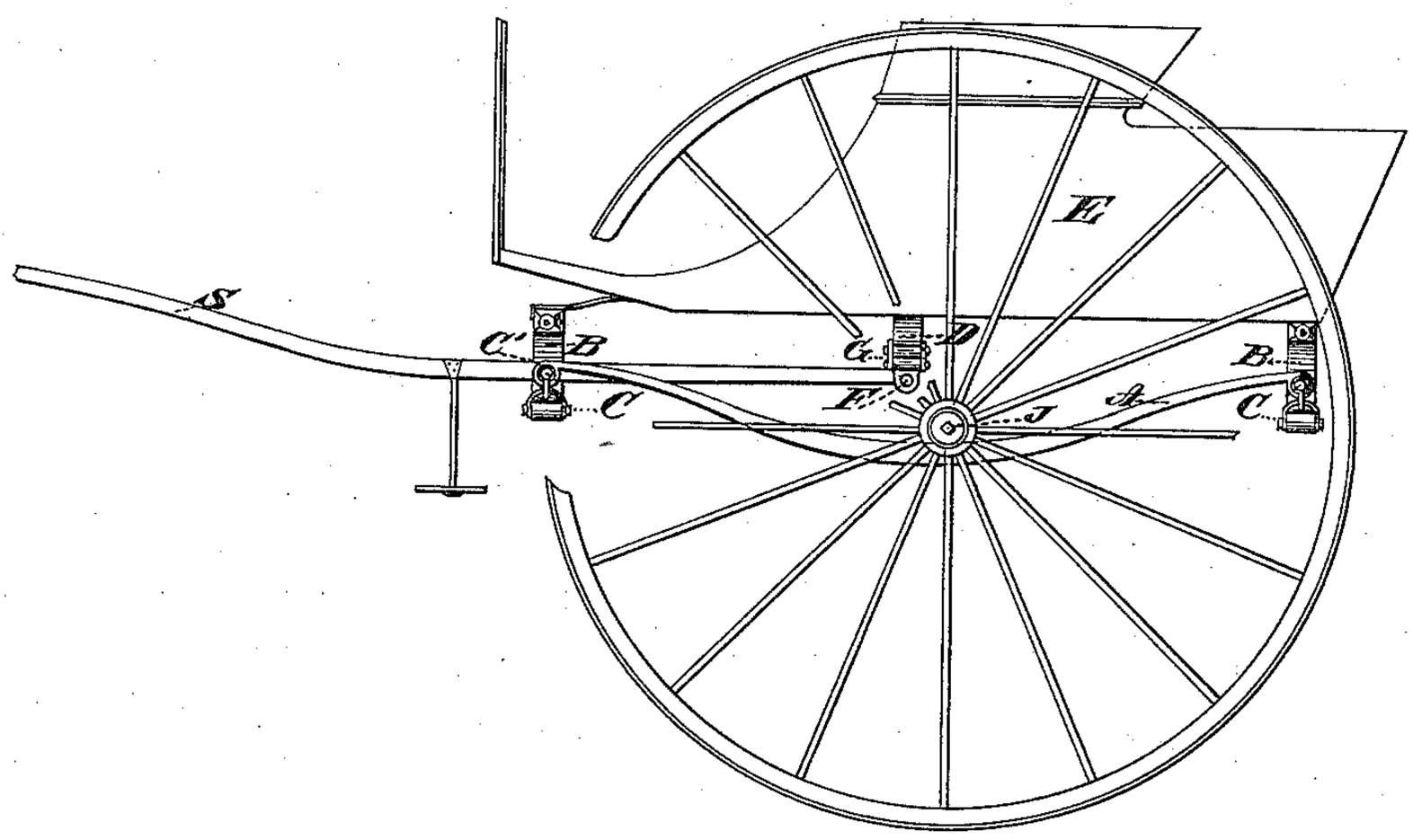
(No Model.)

D. D. WEISELL.

TWO WHEELED VEHICLE.

No. 309,268. Patented Dec. 16, 1884.



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DAVID D. WEISELL, OF FORT WAYNE, INDIANA.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 309,268, dated December 16, 1884.

Application filed December 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID D. WEISELL, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented new and useful Improvements in Two-Wheeled Vehicles, of which the following is declared to be a full, clear, and exact specification.

This invention relates to improvements in two-wheeled vehicles or driving-carts, and has for its objects to provide a novel combination of devices whereby the horse motion or movement of the animal in traveling is absorbed and to a large degree prevented from being transmitted to the vehicle-body, and to improve that class of two-wheeled vehicles in which the vehicle-body is supported by side springs on the axle, and the thills have rearward extensions connected with a spring supported under the vehicle-body, whereby the structure is rendered more compact and efficient, and the draft-strain is transferred from the front of the vehicle-body to the side springs. These objects I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawing, illustrating my invention, in which the figure is a side elevation of the two-wheeled vehicle or driving-cart.

Referring to the drawing, A indicates a suitable side spring—here shown as a semi-elliptic spring—secured to the axle J. There will be two side springs, one at each side, and, as shown, they are connected at their front and rear ends, respectively, with cross-springs B by flexible connections C C′, such as shackles, knuckles, or ball-and-socket joints. The shafts or thills S are hinged or pivoted to the forward extremities of side springs, A, and have no direct connection with the vehicle-body, whereby the draft is transferred from the body E to the springs, and the thills have rearward extensions or heel ends, F, behind their connection with the side springs, which ends are secured directly to a spring, D, (one or more,) attached centrally to the vehicle-body E directly under the weight of the occupant or load. The spring D is preferably semi-elliptic, and sufficiently forward of the axle to clear the same when the vehicle is in use. If a pole is used, it is applied in a manner similar to thills or shafts, by hinging or pivoting the shackle or draw-bars to the front ends of springs A A and extending them backward sufficiently to admit of the heel attachments F to the ends of spring D through and by the yielding connections G. Spring D, which forms the base for the attachment of the heel ends of the shafts or pole, although secured to the body directly under the greatest weight of the occupants or load, does not sustain any of the weight of the same, and is therefore free to vibrate upward and downward with the motion of the heel ends of the shafts or pole caused by the gait of the horse without perceptibly disturbing the occupants, and, acting in combination with the hinged or pivoted shaft or pole attachments C′ and heel attachments F through yielding connections G, effectually overcomes the so-called "horse motion" so much complained of in this class of vehicles. This yielding and flexible shaft attachment also prevents the jarring, oscillating, and vibrating motion of the vehicle from being communicated to the horse with sufficient force to unsteady his gait or chafe his back. Spring D, acting in combination with the shafts or pole, shaft or pole attachments and connections C′, F, and G, springs A A, spring-connections C C, springs B B, and body E, prevents the latter from tipping forward and backward, and maintains it constantly in a horizontal position in the following manner: When the springs that sustain the weight of the occupants or load are flexed, spring D, being secured to the body E, is carried downward with it the entire distance of the combined flexure of both springs A A and B B, while the shafts or pole, through their heel attachments F G to spring D, are also carried with it the same distance, and through and by the shaft or pole attachments C′ the front ends of springs A A are depressed or carried downward in addition to their own flexure a distance nearly equal to the flexure of springs B B. This depression of the front ends of springs A A raises them relatively at their rear ends, and in this manner prevents the rear end of the body from tipping downward and backward, and maintains it in

a horizontal position at all points to which it is carried by the flexure of the springs. The body attachment to the gearing through the yielding connections C C and G, acting in combination with the flexible shaft or pole attachments, prevents the unpleasant jostling motion so common in this class of vehicles, and relieves the occupants from the jerks and jars caused by the sudden starting and stopping of the horse or by the wheel dropping into a rut or striking an obstruction.

The lightness and simplicity of construction of this vehicle and its adaptability to the use of almost any style of body insure elegance in design, its freedom from rigid attachments insures durability, while its ample and properly-adjusted springs, with their yielding connections, together with its yielding and flexible shaft or pole attachments, produce a more easy, graceful, and pleasant riding two-wheeled vehicle than has heretofore been known or used.

I am aware that vehicle-bodies have been supported by side springs on the axle, which are connected at their front and rear ends with cross-springs, to both of which cross-springs the thills are connected, as in United States Patent No. 249,730; but such is not my invention.

I am also aware that in a vehicle-body supported by side springs on the axle the thills have been connected by a bracket to the front of the vehicle-body, and thence extended rearward and connected by links with a cross-spring supported by brackets centrally under the body, as in English Patent No. 8,639, A. D. 1840; but neither is such my invention.

I claim as my invention and desire to secure by Letters Patent—

In a two-wheeled vehicle, the combination of an axle, side springs secured thereon and supporting the body, thills flexibly connected directly to the forward ends of side springs, to transfer the draft-strain thereto and relieve the forward portion of the body therefrom, and having extensions rearward of their flexible connections with side springs, and a spring or springs attached centrally to the body under the weight of the load, and jointed directly to the extremities of the rearward extensions of the thills, substantially as and for the purposes described.

DAVID D. WEISELL.

Witnesses:
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