

No. 726,001.

PATENTED APR. 21, 1903.

E. C. SMITH.
HAND ACTUATED VEHICLE.
APPLICATION FILED SEPT. 11, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

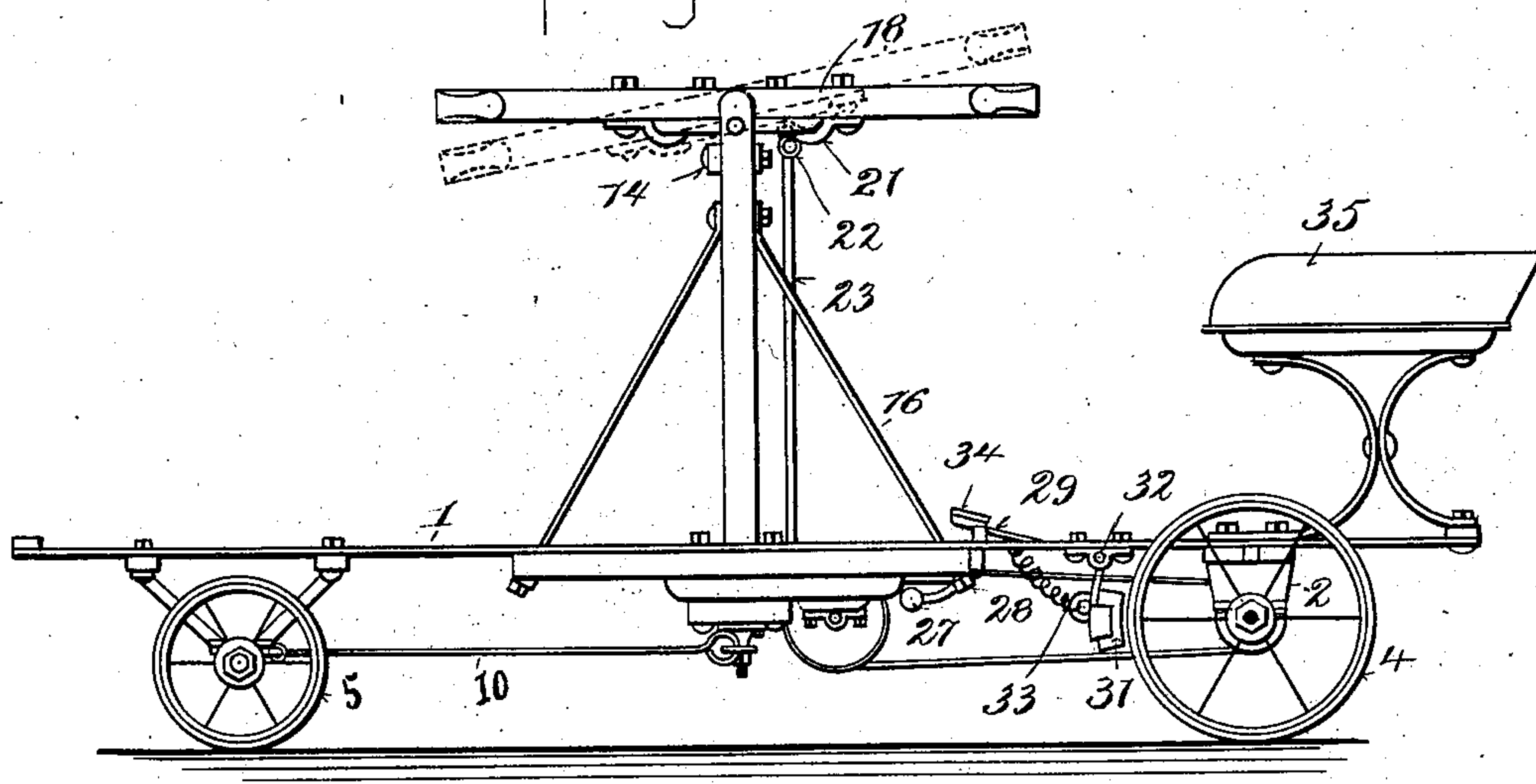
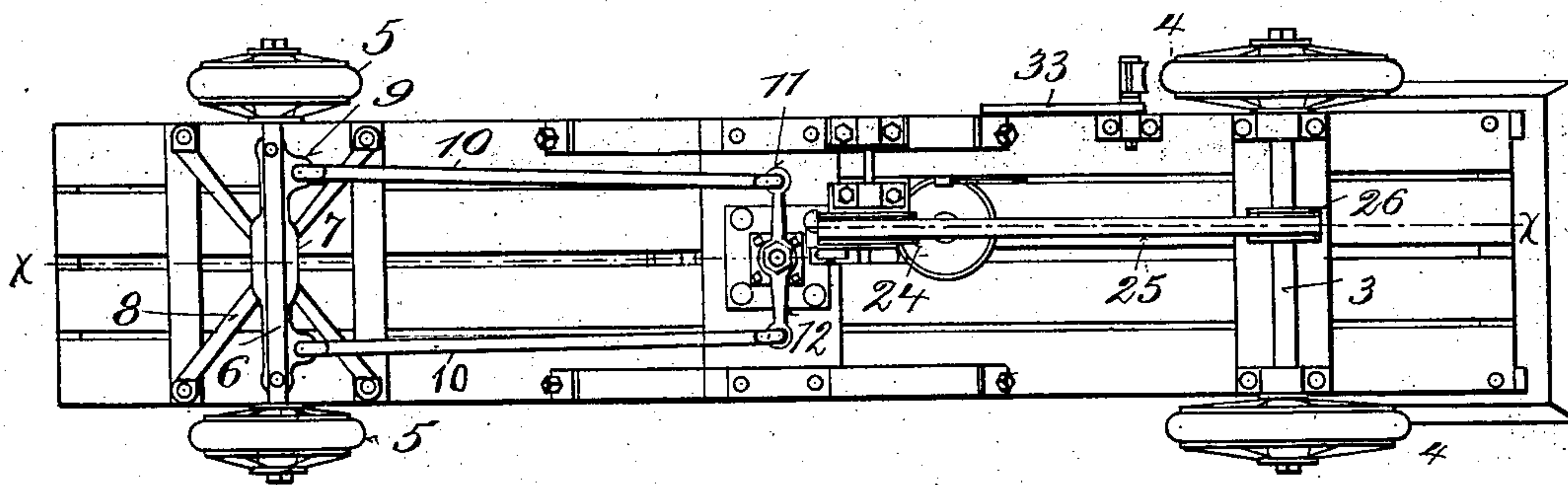


Fig. 2.



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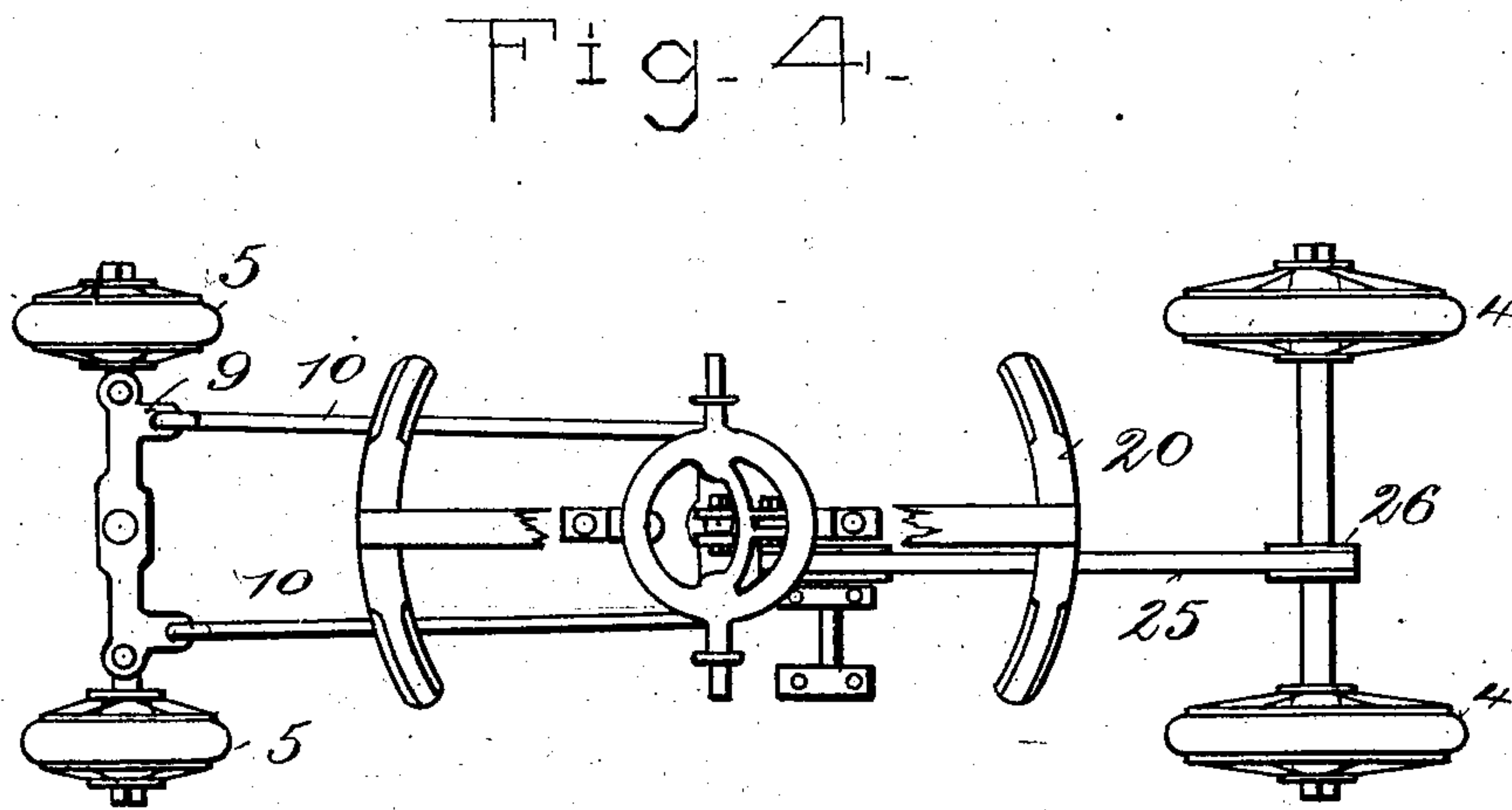
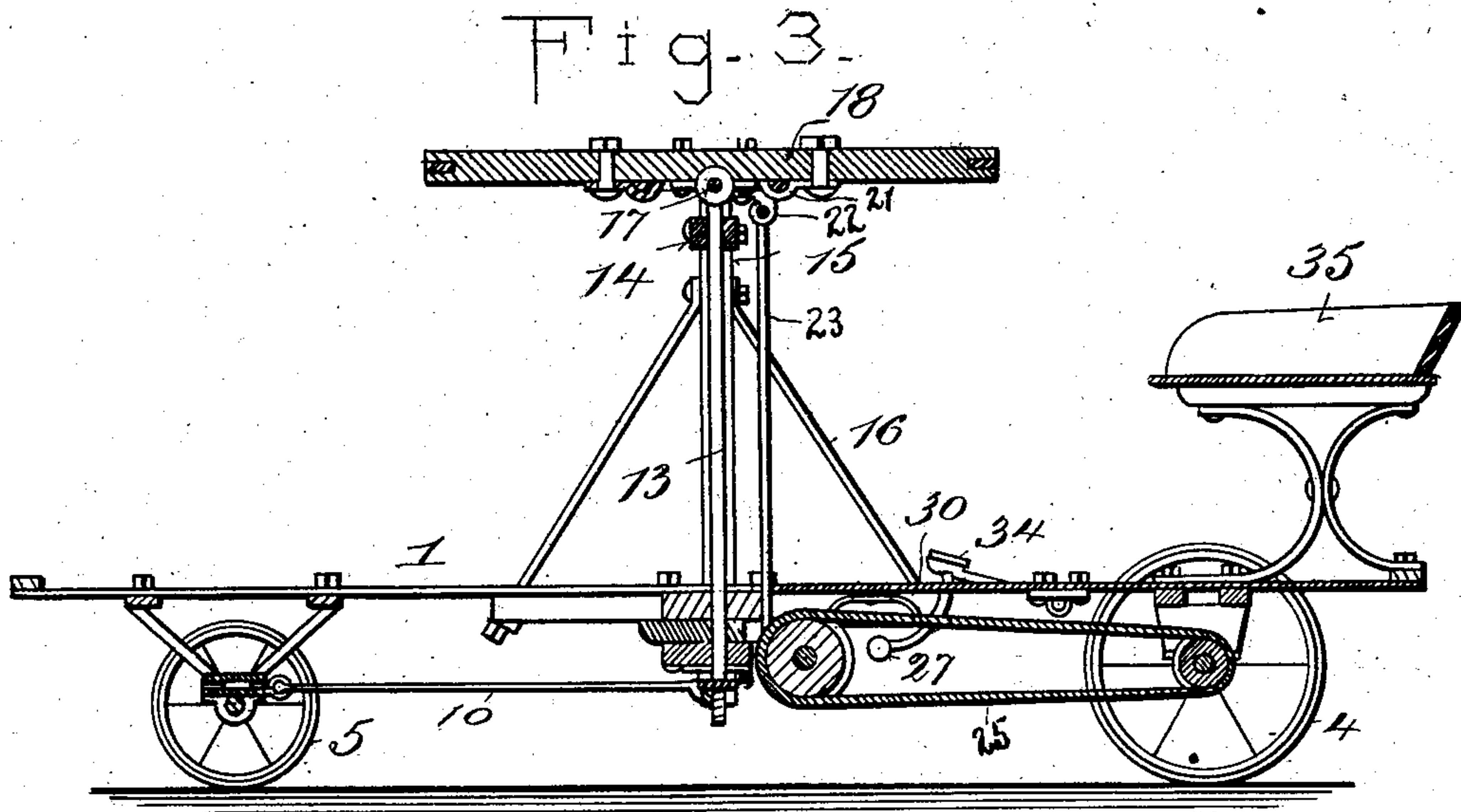
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UNITED STATES PATENT OFFICE.

EUGENE C. SMITH, OF NEW YORK, N. Y., ASSIGNOR TO O. C. A. SWING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

HAND-ACTUATED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 726,001, dated April 21, 1903.

Application filed September 11, 1902. Serial No. 122,938. (No model.)

To all whom it may concern:

Be it known that I, EUGENE C. SMITH, a citizen of the United States, residing in the city of New York, borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Hand-Actuated Vehicles, of which the following is a specification.

My invention relates to hand-actuated vehicles, more particularly those used for the exercise and amusement of children; and the object of the invention is to provide a simple, inexpensive, and efficient vehicle of the character specified.

To these and other ends, which will hereinafter appear, my invention consists in the novel features of construction, arrangements of parts, and combinations of devices hereinafter described, and pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a side elevation of one form of vehicle embodying my invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a longitudinal sectional view of the vehicle, taken on the line *xx* of Fig. 2; and Fig. 4 is a diagrammatic top view of the combined actuating and steering mechanism.

Similar numerals of reference indicate corresponding parts in the various views.

Referring to the accompanying drawings, the body 1 of the vehicle may be of any suitable shape and size and has depending bearings 2 for supporting the axle 3 of the rear traction-wheels in such a manner that the wheels do not turn at an angle to the body of the vehicle. The axle 3 has any suitable traction-wheels 4, rigidly secured thereto. The front wheels 5 are supported upon an axle 6, secured to a frame 7, that is pivoted centrally to a depending frame 8, extending from the vehicle-body. Any suitable means may be provided for pivoting the frame 7 to the depending frame 8. The frame 7 has rearwardly-extending lugs 9, to each of which is connected one end of a rearwardly-extending link 10, the opposite end of each link being connected at 11 to a cross-beam 12, that is secured centrally to an upright post 13, that extends upwardly through the body of the vehicle and

is adapted to turn on its longitudinal axis in the bearings found in the vehicle-body and in the fixed cross-head 14, that unites the upwardly-extending stanchions 15, supported by braces 16, secured to the stanchions and to the vehicle-body. The upper end of the post 13 is pivoted at 17 to what I term a "combined driving and steering handle" 18, that preferably extends fore and aft of the vehicle-body and is provided at each end thereof with segmental handpieces 20. A depending bracket 21 is secured to the handle and has pivoted at 22 a downwardly-extending link or pitman-rod 23, the lower end of which is suitably connected to a crank-pin on a belt-pulley 24, that is mounted in suitable brackets carried at the under side of the vehicle-body. A belt 25 surrounds the pulley 24 and coöperates with a companion pulley 26, rigidly connected to the axle 3 of the rear traction-wheels. It will thus be understood that a vibration of the combined steering and driving handle 18 in one direction, as indicated in dotted lines in Fig. 1, will transmit a rotary motion to the belt-pulley 24 and through the belt 25 and pulley 26 to the rear set of traction-wheels. A movement, however, of the handle with the post 13 as its axial center will transmit a movement to the axle 6 of the front traction-wheels, thus turning the wheels at an angle to the vehicle-body in order to steer the vehicle, the direction of movement of the handle determining the direction in which the vehicle will be steered.

Upon reference to Fig. 1 it will be observed that a bell-hammer 27 is pivoted at 28 to a suitable portion of the vehicle-body and has a suitable stem 29 coöperating therewith, said stem projecting through the vehicle-body, so that it may be depressed by the foot to throw the bell-hammer into contact with a bell 30 (see Fig. 3) in order to sound an alarm.

A brake-shoe 31 is pivoted at 32 in a bearing secured to the vehicle-body and is connected to a contractile spring 33, which is secured at one end to the pivoted brake-shoe and at the opposite end to the vehicle-body. The rock-shaft 32, which constitutes a pivot for the brake-shoe, has an upwardly-extending arm 35, rigidly secured thereto, and the upper end of which is provided with a foot-

piece 34, by means of which the brake can be applied to one of the rear traction-wheels of the vehicle.

If desired, the vehicle may be provided with
5 one or more seats 35 and which may either be bolted to the vehicle-body, as shown, or removably attached thereto, as desired.

It will be observed that by my invention I
10 have provided a simple, cheap, and efficient structure of the character described and by means of which the vehicle can be both driven and steered through a single hand-actuated device or handle.

Having described my invention, what I
15 claim, and desire to secure by Letters Patent, is—

1. In combination with a vehicle-body a pair of relatively fixed rear traction-wheels, a pair of front traction-wheels and their axle
20 pivoted for guiding, a vertical post 13 extending up through the said body and free to turn axially, a cross-bar turning with the lower end of the said post, a pair of links connecting the ends of the said cross-bar with the
25 said front axle on each side of its center, a fixed bearing for the upper end of said post,

a handle pivoted vertically to the top of said post and therefore having at will either vertical or horizontal oscillation, a rotary crank-wheel, a rod 23 extending from the said handle to the crank of the said wheel and gearing connecting the said wheel with the rear axle of the vehicle substantially as and for the purpose set forth. 30

2. A vehicle-body provided with pairs of front and rear wheels the axle of the former being pivoted for guiding, a vertical post arranged in the middle of said body and free to turn, a handle pivoted for vertical motion on the top of said post and also free to turn horizontally therewith, a rod extending down from the said handle, gearing driven by the vertical oscillation of the said handle and connected to the rear axle for driving the same, a cross-bar turning with the said post and rods connecting the ends of the said cross-bar with the front axle on each side of the pivot of the latter substantially as set forth. 35 40 45

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