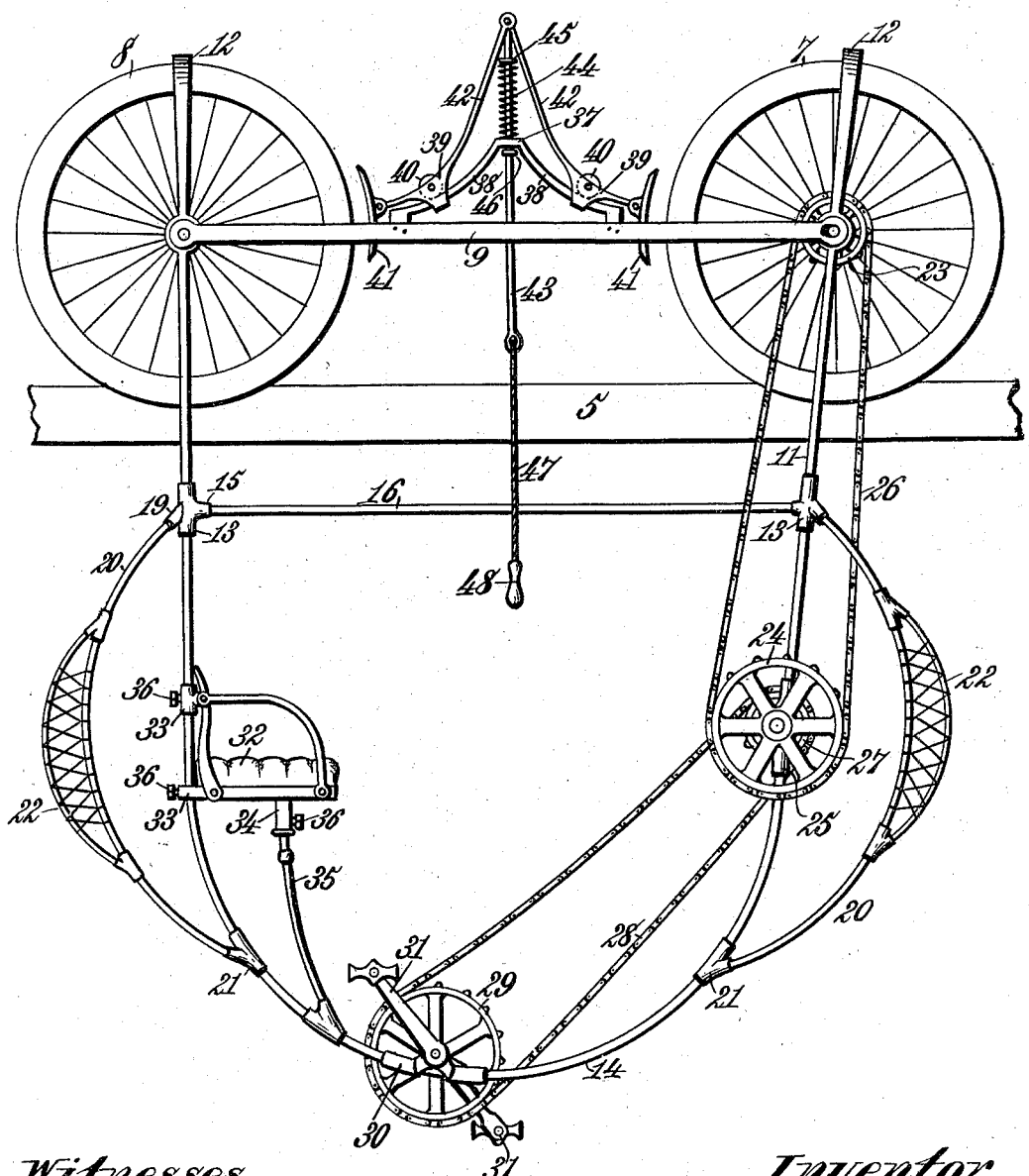
(No Model.) 2 Sheets—Sheet 1.

W. H. MARTIN.

ELEVATED TRACK CYCLE.

No. 559,298. Patented Apr. 28, 1896.

Fig. 1.



Witnesses.
Robert Everett.
A. H. Norris.

Inventor:
William H. Martin.
By James L. Norris.
Atty.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

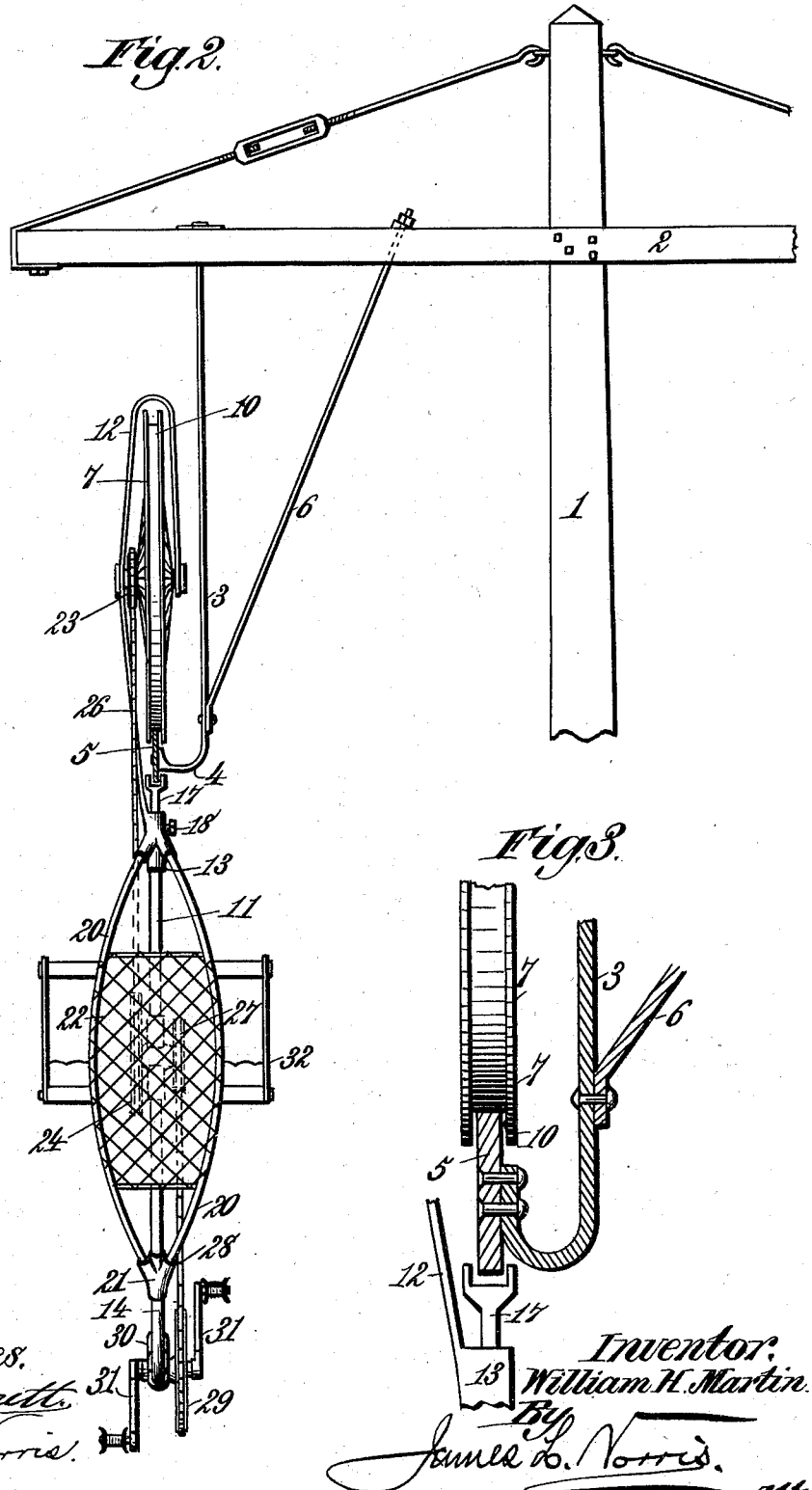

Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM H. MARTIN, OF MOBILE, ALABAMA.

ELEVATED-TRACK CYCLE.

SPECIFICATION forming part of Letters Patent No. 559,298, dated April 28, 1896.

Application filed August 3, 1895. Serial No. 558,149. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MARTIN, a citizen of the United States, residing at Mobile, in the county of Mobile and State of Alabama, have invented new and useful Improvements in Elevated-Track Cycles, of which the following is a specification.

This invention relates to elevated-track cycles, and has for its object to provide an improved cycle adapted to be propelled upon an elevated track for the purpose of furnishing amusement and recreation to the riders; and to this end it consists in the novel features and in the construction and arrangement of parts hereinafter described, and pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a side elevation of my improved cycle. Fig. 2 is an end view of the same and its elevated track, and Fig. 3 is a detail sectional view of the track and its hanger and illustrating the safety rail-guard.

Referring to the drawings, the numeral 1 indicates one of a series of posts or uprights carrying at its upper end a cross-beam 2, to each end of which is attached a hanger 3, which at its lower end is turned up, as at 4, and is bolted or riveted to a track-rail 5. To the lower portion of the hanger 3 is bolted one end of a brace-rod 6, the other end of which is securely fastened to the cross-beam 2, said brace-rods operating to brace the hangers 3 against lateral movement. The posts 1 are arranged at suitable intervals apart, and the track-rails are preferably endless, whereby the cycle may be continuously propelled thereover in one direction.

My improved cycle is constructed as follows: The numerals 7 and 8 indicate, respectively, the front and rear wheels of the cycle connected together by a yoke or frame 9 and having grooved peripheries or rims 10 adapted to engage and travel on the rail 5. Depending from the axles of the wheels 7 and 8 is a metallic U-shaped frame 11, preferably constructed as follows:

The numeral 12 indicates two metallic straps bent or arched at their upper ends to embrace both sides of the wheels, as more clearly shown in Fig. 2, and journaled upon the wheel-axles. The lower ends of said straps are provided with tubular sockets 13, in which are fitted the opposite ends of a bent tube 14, which serves as a frame for carrying the seat and driving mechanism, as will hereinafter be described. Each of the sockets is formed with a hollow boss or nipple 15, in which are fitted the opposite ends of a tube 16, which acts to brace together and strengthen the frame, and in the upper end of each of said sockets 13 is arranged the shank of a safety rail-guard 17, which is bifurcated at its upper end to embrace or straddle the lower edge of the rail 5 and prevent the cycle from being derailed. The rail-guard 17 is adjustable vertically in the socket 13, and is held in its adjusted position by a set-screw 18, which is tapped through the socket and engages the shank of the rail-guard. (See Fig. 2.) Each of the sockets 13 is also provided with two hollow bosses or nipples 19, in which are fitted the upper ends of two bowed tubes 20, that at their lower ends are fitted in like manner in a tubular sleeve 21, secured on the tube 14 in a well-known manner. On the bowed tubes 20 are arranged cushions 22, formed in any suitable manner and designed to absorb the impact in case of a collision.

Carried by the axle of the front wheel 7 is a sprocket-wheel 23, and a similar, but preferably somewhat larger, sprocket-wheel 24 is journaled in a bracket 25, sleeved upon the tube 14, and is geared to the sprocket-wheel 23 by a drive-chain 26. Rigidly fixed upon the same axle with the sprocket-wheel 24 is a smaller sprocket-wheel 27, that is geared by a drive-chain 28 to a somewhat larger sprocket-wheel 29, journaled in a bracket 30, sleeved upon the tube 14. On the axle of the sprocket-wheel 29 are fixed pedal-cranks 31, constructed in an ordinary manner and operated as usual for driving the wheel 29 and, through the medium of the gearing described, the wheel 7 of the cycle.

Supported upon the rear portion of the frame 11 is the operator's seat 32, which at its back carries sleeves 33, which are loosely fitted on the tube 14, so that they may be freely moved up and down thereon, and to the bottom of said seat is secured a socket 34, that is fitted over a standard 35, sleeved upon the tube 14. The seat may be raised and lowered to accommodate the operator and

is held in its adjusted position by means of a set-screw 36, carried by the sleeves 33 and socket 34.

Arranged upon the frame 9 of the cycle and intermediate the wheels is a bracket 37, having oppositely-inclined arms 38, on which are arranged to slide yokes 39, each carrying a friction-roller 40, that is adapted to travel on the upper inclined edges of the arms 38. Pivotally connected to the yokes 39 are brake-shoes 41, adapted to engage the wheels 7 and 8, and from the opposite ends of said yoke project upwardly-extending arms 42, that at their upper ends are pivotally connected to one end of a rod 43. The rod 43 passes down through an aperture in the center of the bracket 37, and is normally held in a raised position by a coiled spring 44, seated on the bracket and bearing against the under side of a collar 45, secured on said rod. A collar 46 is also secured on said rod beneath the bracket 37, and acts to limit the upward movement of the rod. To the lower end of the rod 43 is attached one end of a cord or chain 47, that at its lower end is provided with a handle 48 that hangs within convenient reach of the operator.

When it is desired to apply the brake, the operator pulls upon the cord or chain 47, thus depressing the rod 43 against the tension of the spring and causing the yokes 39 to ride down the inclined arms 38, which spreads or thrusts the brake-shoes outwardly against the rims of the wheels 7 and 8 and retards and finally stops the movement of the latter.

With a view to permitting the cycle traveling around short curves I journal the axle of the forward wheel 7 in elongated bearings in the frame 9, as most clearly shown in Fig. 1, whereby said wheel is permitted to have a slight play in its bearings in order that it may correspond in its movements to the curvature of the rail.

From the foregoing description the operation of my improved cycle will be readily understood.

I have illustrated in the drawings but a single seat; but it will be manifest that additional seats may be provided for the accommodation of passengers, and it will also be apparent that other than manual power may be employed for propelling the cycle.

Having thus described my invention, what I claim is—

1. In an elevated-track cycle, the combination with the frame 9, and the wheels 7 and 8 journaled therein, of the arched metallic straps 12 journaled on the wheel-axles and provided at their lower ends with tubular sockets 13, a U-shaped frame 14 fitted in said sockets and carrying a seat and propelling mechanism, brake mechanism carried by the frame 9 and adapted to brake the wheels 7 and 8, and a brake-handle extending into within convenient reach of the seat, substantially as described.

2. In an elevated-track cycle, the combination with the frame 9, and the wheels 7 and 8 journaled therein, of the arched metallic straps 12 journaled on the wheel-axles and provided at their lower ends with the tubular sockets 13, a brace 16 connecting said sockets, and a U-shaped frame 14 fitted in said sockets and carrying a seat and propelling mechanism, substantially as described.

3. In an elevated-track cycle, the combination with the frame 9, and the wheels 7 and 8 journaled therein, of the arched metallic straps 12 journaled on the wheel-axles and provided at their lower ends with tubular sockets 13, vertically-adjustable rail-guards 17 fitted in said sockets and straddling the lower edge of the track-rail, and a U-shaped frame 14 fitted in said sockets and carrying a seat and propelling mechanism, substantially as described.

4. In an elevated-track cycle, the combination with the frame 9, and the wheels 7 and 8 journaled therein, of the arched metallic straps 12 journaled on the wheel-axles and provided at their lower ends with tubular sockets 13, a U-shaped frame 14 fitted in said sockets and carrying a seat and propelling mechanism, and bowed frames 20 arranged upon the forward and rear vertical portions of said U-shaped frame and carrying cushions 22, substantially as described.

5. In an elevated-track cycle, the combination with the frame 9, the wheels 7 and 8 journaled therein, and a depending frame carrying a seat and propelling mechanism, of a brake consisting of a bracket carried by the frame 9 and arranged intermediate the wheels, said bracket having reversely-inclined arms 38, yokes 39 adapted to be moved up and down on said arms and carrying pivoted brake-shoes adapted to engage said wheels, upwardly-extending arms carried by said yokes, and an operating-rod pivotally connected with said arms, and a spring for normally holding said rod raised, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. MARTIN.

Witnesses:
WM. L. BAKER, Jr.,
A. H. GAILLARD.