

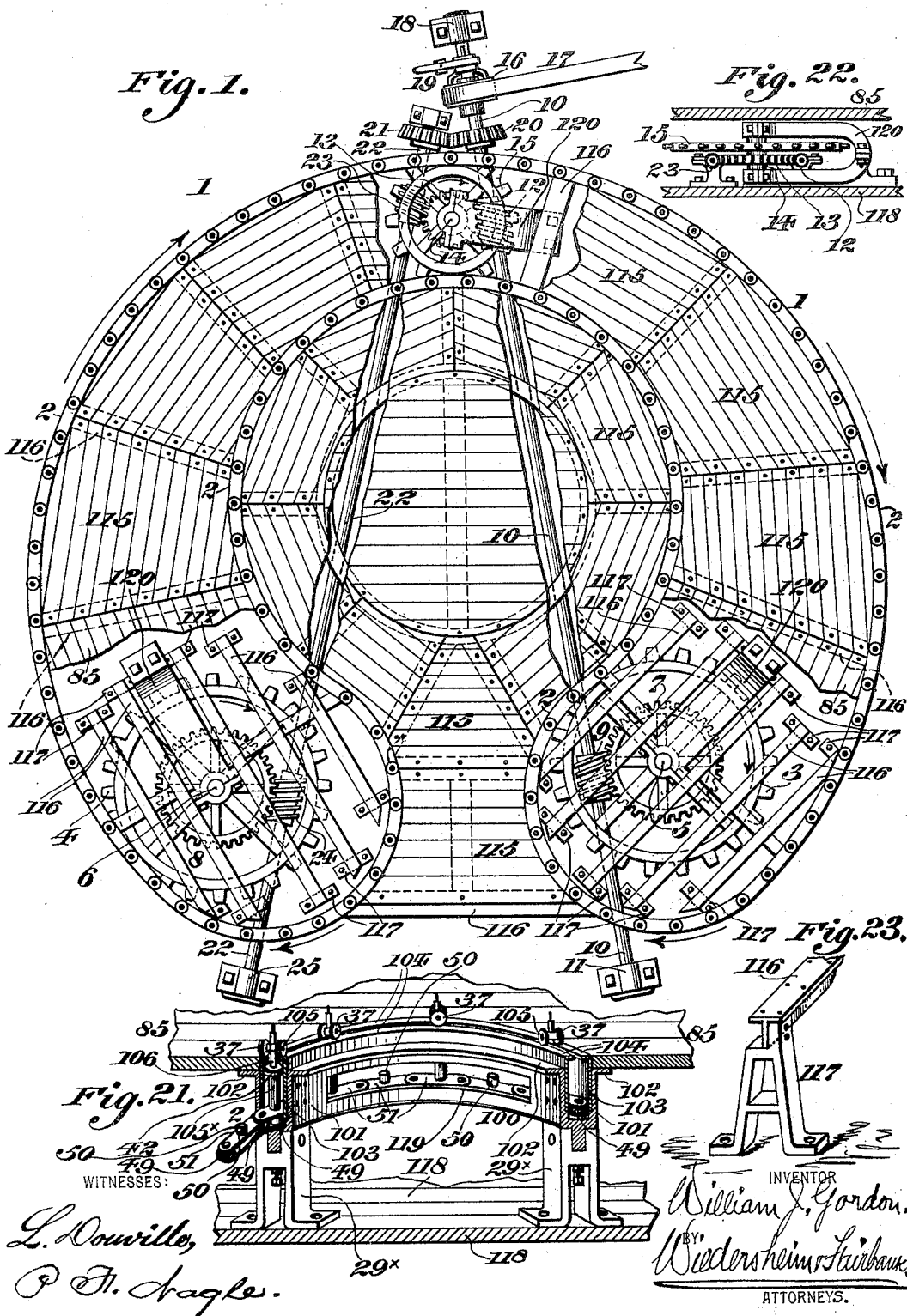
(No Model.)

4 Sheets—Sheet 1.

W. J. GORDON.
AMUSEMENT DEVICE.

No. 599,420.

Patented Feb. 22, 1898.



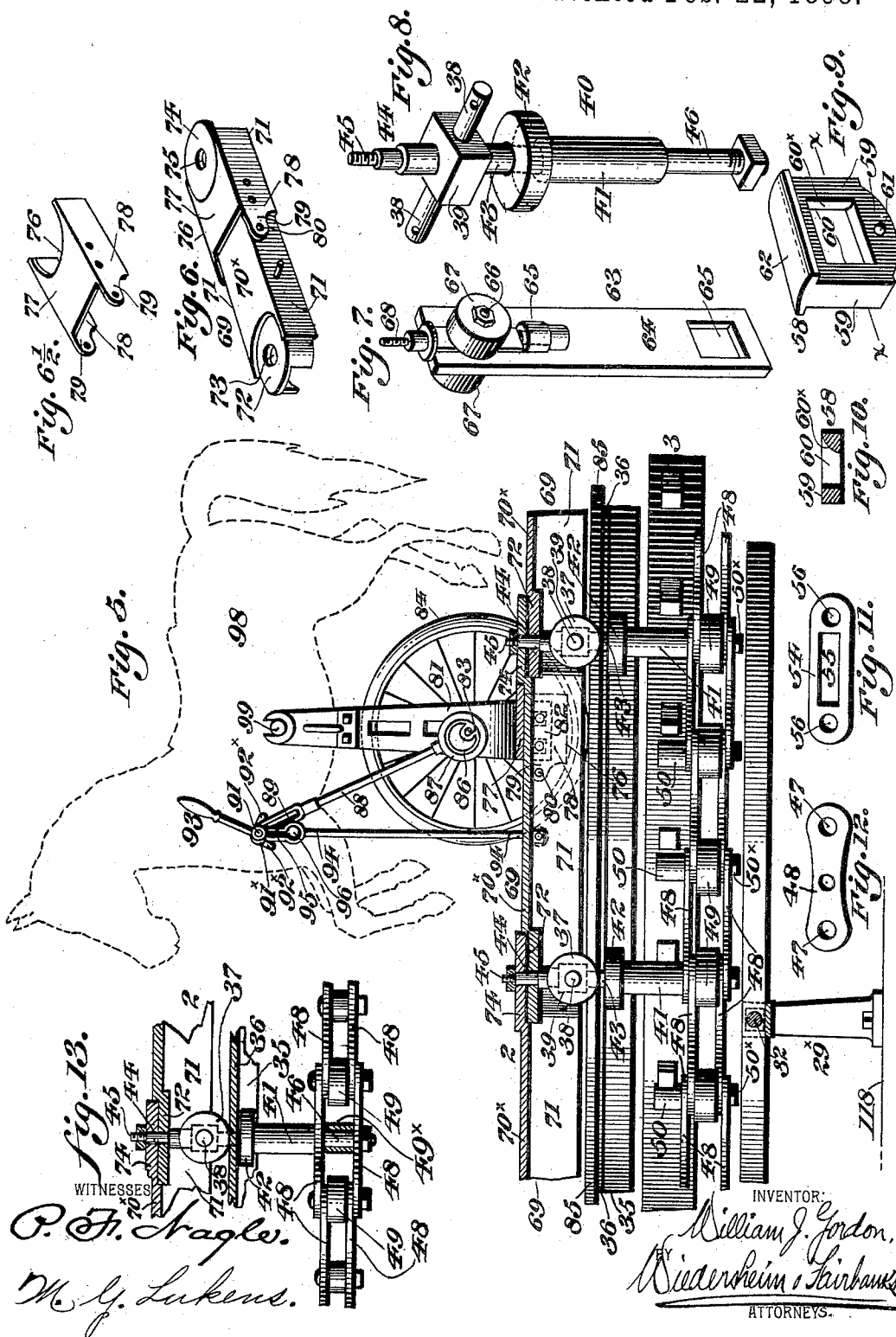
(No Model.)

4 Sheets—Sheet 3.

W. J. GORDON.
AMUSEMENT DEVICE.

No. 599,420.

Patented Feb. 22, 1898.



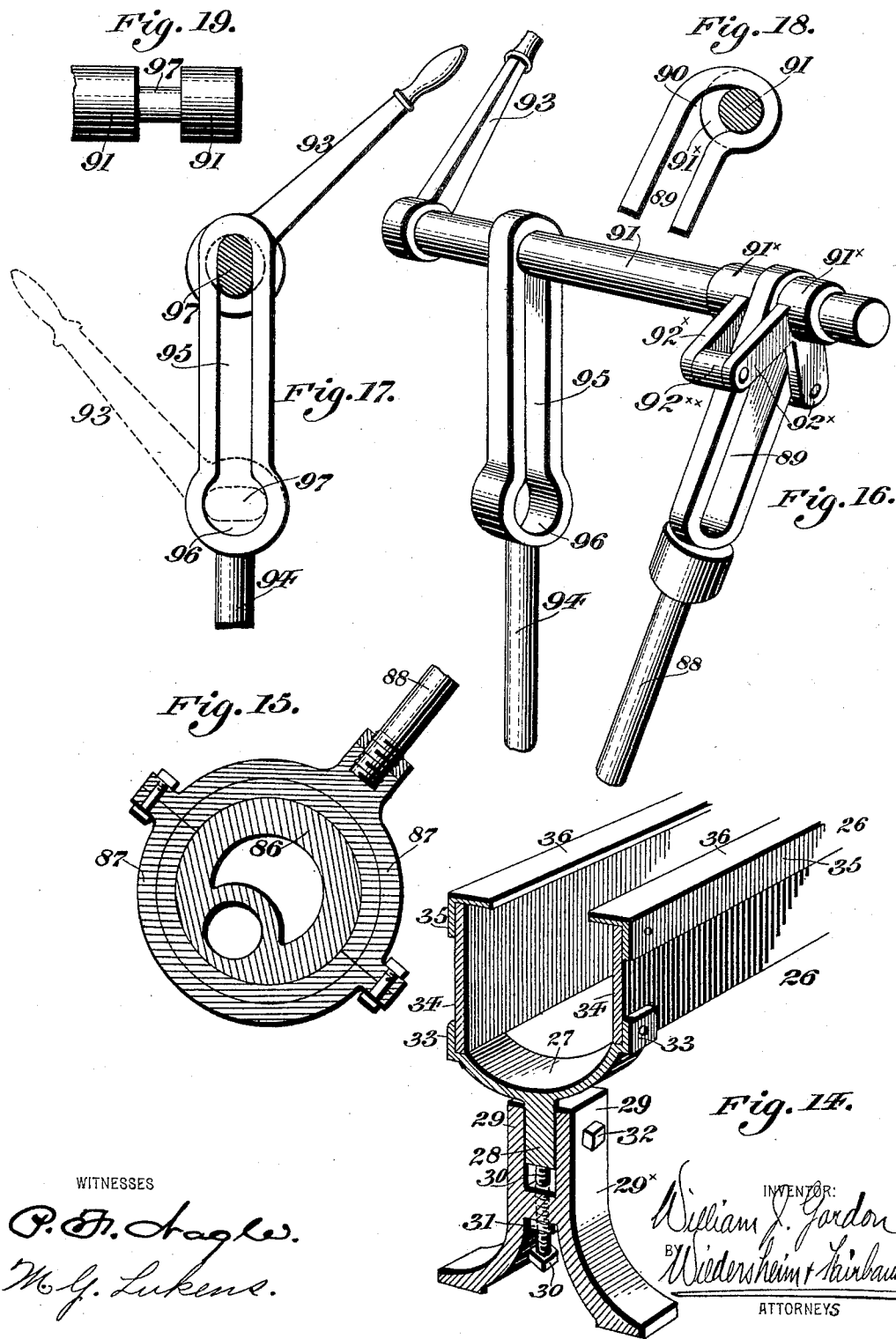
(No Model.)

4 Sheets—Sheet 4.

W. J. GORDON.
AMUSEMENT DEVICE.

No. 599,420.

Patented Feb. 22, 1898.



WITNESSES

P. H. Chaplin.
W. G. Lukens.

INVENTOR:

William J. Gordon
BY Wiedersheim & Hinrichs
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM J. GORDON, OF PHILADELPHIA, PENNSYLVANIA.

AMUSEMENT DEVICE.

SPECIFICATION forming part of Letters Patent No. 599,420, dated February 22, 1898.

Application filed November 5, 1897. Serial No. 657,463. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. GORDON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Amusement Device, of which the following is a specification.

My invention relates to amusement devices; and it consists of an endless conveyer whose line of travel is a path substantially of the shape of a horseshoe, said conveyer being adapted to propel devices simulating horses or other animals upon which the rider is mounted.

It also consists of a novel means for imparting a cantering, oscillating, or rocking motion, when desired, to the horses.

It also consists of a novel manner of supporting and actuating the conveyer employed.

It also consists of a novel means of transmitting power to the gears and sprocket-wheels which propel the conveyer, whereby the end thrusts of the shafts employed are equalized and any undue strain on the conveyer is relieved and distributed.

It also consists of a novel construction of trailer which is adapted to be fastened to the conveyer-links, whereby provision is made for enabling the device supporting the horses to have a yielding movement in case any obstruction is encountered.

It also consists of a novel means of constructing the conveyer, its track, and the conduit supporting said track, as well as the manner of sustaining the different sections of flooring or sectional panels and the manner of supporting the sprocket-wheel shafts.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of an amusement device embodying my invention, showing the general arrangement of the actuating mechanism and the means for supplying power to the various gears and sprocket-wheels employed. Fig. 2 represents a vertical sectional view through a portion of the device, showing the arrangement of the trolley-

arms with respect to the conveyer and the manner of supporting the horses thereupon. Figs. 3 and 4 represent, respectively, a side elevation and vertical section of another embodiment of the principle of my invention, showing a different form of trolley arm or bar which may be employed. Fig. 5 represents a side elevation, partly in section, showing the means for actuating the conveyer and the manner of mounting the devices simulating horses or other animals relative thereto. Fig. 6 represents a perspective view of a link of the conveyer, showing also a trailer mounted thereon. Fig. 6½ represents a perspective view of a trailer in detached position. Figs. 7 and 8 represent, respectively, views of different forms of trolley bars or arms employed. Fig. 9 represents a perspective view of an apertured block employed when the trolley-bar seen in Fig. 7 is used. Fig. 10 represents a section on line *xx*, Fig. 9. Fig. 11 represents a plan view of a link employed in connection with the devices seen in Figs. 7 and 9. Fig. 12 represents a plan view of another form of link. Fig. 13 represents a side elevation of a modified construction of sprocket-chain. Fig. 14 represents a perspective view, partly in section, of a portion of the conduit upon which the devices which carry the conveyer are supported. Fig. 15 represents a sectional view of an eccentric employed and its adjuncts. Fig. 16 represents a perspective view of a portion of the device for imparting a cantering, oscillating, or rocking motion to the horses. Fig. 17 represents a side elevation of a portion of Fig. 16, showing the device for locking the operating-lever. Fig. 18 represents a side elevation, partly in section, of a portion of Fig. 16. Fig. 19 represents a front elevation of a portion of Fig. 16. Fig. 20 represents a side elevation, partly in section, of a trolley-arm, showing the adjusting devices therefor. Fig. 21 represents a perspective view, partly in section, of a detached portion of the device. Fig. 22 represents a partial side elevation and partial vertical section of the yoke supporting the sprocket-wheels. Fig. 23 represents a perspective view of a chair and a T-rail or girder supported thereby.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates an amusement device, the same consisting of an endless conveyer 2, which is adapted to travel in a path having the contour of the inner and outer edges of a horseshoe or reverse curve, as indicated in Fig. 1, in which the means of propulsion are best shown and will first be described.

3 and 4 designate sprocket-wheels which are mounted near the heel of the horseshoe curve at about the point where the conveyer in its travel begins its reverse movement, said wheels being mounted upon the shafts 5 and 6, which latter carry the gears 7 and 8, respectively. The gear 7 meshes with the worm 9, carried by the shaft 10, one extremity of which latter has a bearing in the end-thrust box 11. 12 designates another worm on the shaft 10, which meshes with the gear 13, the latter being mounted on the shaft 14, which carries the sprocket-wheel 15, the latter being located at or near the central portion or toe of the horseshoe curve, as will be understood from Fig. 1, whereby said wheel imparts a movement in opposite directions to the contiguous portions of the conveyer, as will be explained.

16 designates a pulley mounted on the shaft 10, to which latter power is supplied through the medium of the belt 17, the latter being actuated from any suitable source of power, as a steam-engine, electric motor, or other device, said shaft 10 having a bearing in the box 18, and its movements being readily controlled by the means of the clutch mechanism 19, the same being of any desired construction and requiring no further description, since it forms no part of the present invention.

20 designates a beveled gear mounted on the shaft 10 and meshing with a similar gear 21, which is mounted on the shaft 22, the latter having a worm 23, adapted to mesh with the gear 13, said shaft 22 being of course mounted in suitable bearings. 24 designates another worm mounted on the shaft 22 and in mesh with the gear 8, the extremity of said shaft 22 having its bearing in the end of the thrust-box 25.

It will be noted that the shafts 10 and 22 are arranged obliquely, so that they diverge or are at an angle to each other, it being also apparent that the worms rotate in opposite directions to each other and that the sprocket-wheel 15 by reason of its location at the toe of the horseshoe curve, near the inner and outer circles thereof, takes up and relieves any strain on the conveyer, while the oblique arrangement of the shafts serves to equalize the end thrusts thereof and, in addition, to take up, relieve, and distribute the strain on the conveyer.

26 designates a conduit, the contour of which corresponds to the path taken by the conveyer, as illustrated in Fig. 1, said conduit consisting of a plurality of brackets or cross-pieces 27, which have the depending members

28, the latter being located in the jaws 29 of the base or pedestal 29^x and having the screw or bolt 30 contacting therewith, said bolt passing through a suitable portion of said base and being held in position by means of the lock-nut 31, whereby the member 28, and consequently the cross-piece 27, upon which the track hereinafter referred to is supported, are adjustable and held in locked position by means of the bolt or other fastening device 32.

33 designates upturned ends of the cross-piece 27, which have shoulders formed adjacent thereto, said shoulders serving to support the upright sides 34 of the conduit to which the angle-irons 35 are attached, the laterally-extending portion 36 of said angle-irons serving as a track, upon which travel the rolls or trolleys 37, the latter being mounted on the bearings 38, which are attached to the head 39 of the trolley-arm 40.

The trolley-arm 40 has a body portion 41, upon which is rotatably mounted the roller 42, which is adapted to be in substantial contact with the inner upper walls of the conduit 26, as will be understood from Fig. 2, whereby friction is reduced to a minimum, said body portion 41 being connected with the head 39 by means of the neck 43, upon which said roller 42 rotates.

44 designates a stem projecting from the head 39, said stem having the threaded portion 45, the function of which will be hereinafter explained.

46 designates the lower portion of the trolley-arm, which passes through the center or between the eyes of the links 48, as will be understood from Figs. 12 and 13. The links are secured together at or near their extremities in any suitable manner, having the rollers 49 therebetween, the lower or reduced end 46 of each trolley-arm passing through a sleeve 49^x, which keeps the links at equal distances apart and makes the trolley-arm rigid under all conditions. The above construction, as illustrated in Figs. 12 and 13, is the preferred form of my invention; but in Fig. 5 I have shown another embodiment of the principle thereof in which the portions 46 of the trolley-arms pass through the eyes of every third pair of links, the eyes of the intervening links having pins 50^x passing there-through, said pins being projected upwardly and having rollers 50 mounted thereon, said rollers being engaged by the teeth of the proper sprocket-wheel, the manner of such engagement being illustrated in Fig. 5, and it will be understood that I consider the construction seen in Fig. 5 as coming within the spirit of my invention.

In Fig. 11 I show a modified construction of link, each of the same having a suitable body portion 54, in which is located the slot 55, the ends of said link having the eyes or openings 56 therein and the manner of assembling said links being understood from Figs. 3 and 4, in which each pair of links is pivotally

connected by means of the pins 57, suitable filling or spacing devices between the links being employed.

58 designates mortise or spacing blocks, which have a depending member 59, provided with an opening 60, which is adapted to be engaged by the teeth of the sprocket-wheels, it being noticed that the rear wall of said opening is curved, as indicated at 60^x, in order that the teeth of the sprocket-wheels may readily leave said opening. The block 58 is held in proper position relative to the links 54 by means of the overhanging top 62 and a pin which can be inserted in the opening 61, thereby preventing any upward or downward movement of the block relative to the links 54.

When the links 54 and the block 58 are employed, I preferably use the trolley-bar 63, (seen in Fig. 7,) said bar having a body portion 64 and an opening 65 in its lower portion, the latter being inserted in the slots 55 when the parts are assembled, so that the opening 65 is engaged at the proper intervals by the teeth of the sprocket-wheel 3 in the same manner as the openings 60 of the blocks 58, as will be evident from Fig. 3.

65 designates a roller rotatably mounted in the upper portion of the trolley-bar and adapted to contact with the interior surfaces of the track 69^x, as seen in Fig. 4, said track being located above the conduit having the sides 70, one of which is removed, as indicated in Fig. 4, at the point where the wheels engage the sprocket-chain, as is also the case in the conduit seen in Fig. 2.

67 designates trolleys, which are mounted on the bearings 66 and travel on the track 69^x, the trolley-bar 64 having the threaded stem 68, which projects upwardly through the limbs 69 of the conveyer 2, the detailed construction of which latter will now be described.

The conveyer consists of a plurality of links 69, (best seen in Fig. 6,) which are preferably made trough-shaped, having the tops 70^x and the depending sides 71. One end of each link is provided with a recess or countersunk portion 72, which has a curved wall, so as to enable it readily to pass around the curvatures of the track, and having also the opening 73 therein for pivotal attachment by means of the upper portion of the trolley arm or bar to the extremity of the adjacent link, which latter is constructed as indicated at the right-hand portion of Fig. 6, the same illustrating the link as having a raised portion 74, with its end curved to correspond to the curvature of the recess 72 and provided with an opening 75, through which either the stem 68 or 44 of the respective trolley arm or bar projects when the parts are assembled.

76 designates a trailer which is pivotally attached to the links 69 at the proper intervals, said trailer consisting of the top 77 and the depending sides 78, which latter are provided with the ears 79, through which the

pins 80 pass, whereby it will be seen that the trailer is capable of an independent rocking movement relative to the link to which it is attached.

81 designates standards, which are attached to the trailers in the manner indicated in Fig. 5, said standards having the depending portions 82, which are bolted against the sides 78 of the trailer.

83 designates a shaft or axle which passes through the standards 81, having its bearings therein, said axle having mounted thereon the wheels 84, which may be provided with resilient tires, if so desired, said wheels traveling on the floor 85.

86 designates an eccentric mounted on the axle 83 or hubs of the wheels 84, said eccentric being engaged by the eccentric-strap 87, from which latter extends the eccentric-rod 88, the latter terminating in the elongated slot 89, which is laterally deflected at its upper end, as indicated at 90, said laterally-deflected portion forming a seat for the shaft 91, which latter has the collars 91^x engaging it on either side of the slotted portion 89, from which collars arms 92^x project, said arms being joined by the cross-piece 92^x.

93 designates a lever attached to the shaft 91, which latter is provided with the flattened portion 97, which is movable in the slot 95 of the rod 94, which is attached to a side of one of the trough-shaped links 69, as will be understood from Fig. 5, the lower portion of the slot 95 being widened, as indicated at 96, in order to form a seat for the flattened portion 97 of the lever 91, as will be explained.

The device simulating a horse 98 has a shaft 99 therethrough, said shaft having its bearings in the upper portion of the standards 81, said horse carrying also a suitable portion of the shaft 91.

When the shaft 91 is in the position indicated by Fig. 18, it will be evident that the reciprocation of the rod 88 will cause an up-and-down movement to be imparted to the shaft 91, and since the latter is secured to the horse at a point in advance of its pivoted attachment it will be evident that a rocking or cantering motion will be imparted to the horse so long as the rotation of the wheels 84 and their eccentrics continues, said rocking movement being discontinued by disengaging the shaft 91 from its seat (seen in Fig. 18) and causing the flattened portion to engage its seat 96, it being evident that when the parts are in the position indicated in dotted lines in Fig. 17 the reciprocation of the rod 88 will cause no movement to be imparted to the shaft 91.

In Fig. 20 is shown a device for adjusting the height of the conveyer and the trolley with respect to the floor and track, 100 designating the conduit, which consists of the sides 101, which have the laterally-extending flanges 102, on which the floor 85 is supported.

103 designates plates supported within the walls 101, said plates having the tracks or

angle-irons 104 supported thereon, on which travel the rollers 37, the same rotating on the bearings 105 of the trolley-arm 105^x, the lower portion of which latter is substantially the same as the trolley-arm 40.

The stem 106 is threaded and passes through the journals 107 and 108, by the adjustment of which latter the desired height of the trolley relative to the track is attained.

109 designates a washer upon which rest the tops 70^x of the conveyer-links, the stem 80 passing through the latter, a bushing 111 and the parts being held in assembled position by the nut 110.

In the preferred embodiment of my invention I construct the floor 85 of the amusement device of boards formed in panels 115, as clearly shown in Fig 1, said panels being partly supported by the flanges 102, as hereinbefore stated, and partly by the beams, T-rails, or girders 116, which are secured in any suitable manner to chairs 117, carried by the lower floor 118.

The several forms of conduits shown in the drawings are each provided with openings similar to that shown at 119, Fig. 21, at points where said conduits are adjacent to the sprocket-wheels 3, 4, and 15, the object of the openings 119 being to permit the teeth of the sprocket-wheels 3, 4, and 15 to pass through the same and enter the conduits, so as to engage the endless conveyer 2 and impart motion thereto.

The sprocket-wheels 3, 4, and 15 and the worm-wheels 7, 8, and 13 are journaled in yokes or pedestals 120, which are made in sections and firmly secured to the lower floor 118, as seen in Figs. 1 and 22.

It will be noted that the chairs 117 are preferably disposed in the open spaces between the respective sprocket-wheels 3 and 4, which are located at or near the heel of the horseshoe curve, and the open spaces between said wheels and the conduit or endless conveyer 2, as will be understood from the lower portion of Fig. 1, it being noted that the T-rails supported on said chairs extend at an angle to the oblique shafts 22 and that the yokes or pedestals 120 are preferably arranged between a pair of said chairs and the girders or rails supported thereby, whereby all the space is utilized.

The pedestal-boxes 120 are preferably made in sections, as indicated in Fig. 22, and positively sustain the shafts 5 and 6 in upright position under all conditions.

By making the floor in sections or in panels 115, as above described, the amusement device can be readily transported in sections and expeditiously set up or erected at any desired point.

The operation is as follows:

The manner of assembling the parts will first be described.

It will be seen that the sprocket-chain formed by the links 48 or 54 runs within the conduit 26, while the rolls or trolleys 37 or

67, as the case may be, travel upon the tracks 36 or 69^x, respectively. The lower portion of the trolley-arm seen in Fig. 8 constitutes an inherent part of the sprocket-chain, as does also the trolley-bar seen in Fig. 7, whereby all the parts when assembled move in unison, and since the stem 68 or 45, as the case may be, passes through the links of the conveyer at the points 73 or 75, as indicated in Fig. 6, it will be evident that any movement imparted to the chain formed by said links will cause a similar movement to be imparted to the conveyer 2, while by the provision of the rollers 65 any undue friction on the inside of the conduit will be prevented, it being also noted that the rolls or trolleys 37 or 67, as the case may be, support the weight of the conveyer and sprocket-chain and keep it always in position to enable said chain to be always properly engaged by the sprocket-wheels.

The links 69 of the conveyer 2 serve to form a cover for the conduit and to prevent anything from falling thereinto and also guard the trolley arms or bars by preventing anything from coming in contact therewith, and it will be evident that if the wheels 84 come in contact with any object on the floor the trailer to which said wheels are attached will raise in unison with the latter, and thus allow them to readily pass over the obstruction, thereby preventing any weight from coming upon the conveyer, it being understood that each wheel 84 is so arranged and adjusted in respect to the floor and trailer that no weight comes on the latter, the conveyer adjusting itself to the floor and the wheels 84 bearing the weight of the horse and rider.

The trolleys 67 or 37, as the case may be, sustain the weight of the conveyer, while the rollers fitted between the links and in the trolley-bars bear upon the inside of the conduit. By reason of the peculiar construction of the links of the conveyer and their connection at the top and bottom of the trolley arms or bars they will travel on the inside of the conduit and tend to keep the trolley-bars always vertical.

In practice the oblique shafts 10 and 22 are provided with a double-ball end-thrust bearing, which latter is adjustable, so that the worms can be properly adjusted and kept in the desired position with respect to the worm-wheels, this being absolutely necessary to prevent any rebound or lateral motion of the shafts.

Power having been applied to the pulley 16 it will be evident that the shafts 10 and 22 will be caused to rotate, and with them, by reason of the intermediate mechanism, the sprocket-wheels 3, 4, and 15. The rotation of the sprocket-wheels will cause a movement to be imparted to the sprocket-chain composed of the links 48, 54, or 51, as will be evident from Figs. 3 to 5, inclusive, and the movement of said chain will through the medium of the intermediate connections cause

the movement of the conveyer 2, the latter carrying with it the horses 98 and their riders.

It will be seen that by the employment of the top links a connection is made with the conveyer below, thereby making said conveyer rigid under all conditions; or, in other words, by connecting the above in the manner described I obtain an equal strain on top and bottom, since if the top chain were not used the bottom conveyer would not pull evenly, but by making the connection in the manner described the trolleys are kept in a vertical position.

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

1. In a device of the character named, an endless conveyer adapted to travel in a path conforming to the inner and outer edges of a horseshoe, and having a sprocket-chain connected therewith, sprocket-wheels engaging said chain and means for rotating said wheels in unison.

2. In a device of the character named, an endless conveyer, a conduit therefor, tracks for enabling said conveyer to travel in a path conforming to the inner and outer edges of a horseshoe curve, a sprocket-chain connected with said conveyer, sprocket-wheels located at the heel and toe of the horseshoe curve, and means for rotating said sprocket-wheels in unison.

3. In a device of the character named, an endless conveyer having its path of travel conforming to the edges of a horseshoe curve, sprocket-wheels located at the heel and toe of said horseshoe curve, gears mounted upon the shafts to which said sprocket-wheels are secured and a plurality of diverging or obliquely-arranged shafts provided with end thrusts and suitable bearings, said shafts having worms engaging said gears and means for actuating one of said shafts.

4. In a device of the character named, a conveyer, means for causing the same to travel in a path conforming to a horseshoe curve, a sprocket-chain in alinement with said conveyer, connections common to said conveyer and chain, sprocket-wheels located at the heel and toe of said horseshoe curve, and gears mounted on the shafts of said sprocket-wheels and diverging or obliquely-arranged shafts having worms on either end thereof, the pinion at the toe of the horseshoe curve being engaged by a worm of both shafts, while the pinions at the heel of said shoe are engaged by a single worm of the adjacent shaft.

5. In a device of the character named, a conduit, a track supported on the upper portion thereof, means for adjusting the height of said track, rolls or trolleys adapted to travel on said track, a trolley bar or arm supporting said rolls, a conveyer and a sprocket-chain common to said trolley bars or arms, and means for actuating said chain.

6. A conduit suitably supported and carrying a track on its upper portion, means for

raising and lowering said track, a series of trolley-arms, rollers carried upon laterally-projecting bearings attached to said arms, a sprocket-chain attached to the lower portion of said arms, a conveyer formed of a plurality of links having the upper portion of said trolley-arms passing therethrough, trailers attached to said conveyer, a device simulating a horse or other animal mounted upon said trailers and wheels supported on shafts located above said conveyer.

7. In a device of the character named, a conveyer consisting of a plurality of links pivotally attached to each other, trailers secured to said links, said trailers having a top portion and depending sides, standards attached to said trailers, a shaft mounted in said standards, a wheel carried by said shafts, an object simulating a horse or other animal pivotally mounted on said standards and means for actuating said conveyer.

8. In a device of the character named, a sprocket-chain consisting of links having openings therein, blocks inserted in said links, means for holding said blocks in position, a trolley-bar also inserted in certain of said links, a conduit for said trolley-bar, a track in the upper portion of said conduit, rolls carried by said bar and adapted to travel on said track, a conveyer attached to said bar and means for actuating said sprocket-chain.

9. In a device of the character named, a conveyer composed of links pivotally attached to each other, trailers having one end pivotally secured to said links, standards attached to said trailers, a shaft passing through said standards and having wheels mounted thereon, a device simulating a horse or other animal mounted in said standards and means for causing said device to rock or canter at will.

10. A sprocket-chain composed of links having a slot therethrough, and blocks inserted in said slots, said blocks having an opening therein, a wall of said opening being rounded, means for preventing displacement of said blocks, a trolley-bar having an opening in the lower portion thereof, which latter is inserted in said links, a track, rollers carried by said trolley-bar and adapted to travel on said track, a conveyer and fastening devices common to the links of said conveyer and to said trolley-bar.

11. In an amusement device, a plurality of standards, a device simulating a horse movably mounted thereon, a shaft passing through said standards, wheels carried by said shaft, an eccentric mounted on the latter, a rod or shaft mounted in said horse, and connections common to said eccentric and rod for imparting a rocking motion to said horse.

12. A device simulating a horse or other animal movably supported, an eccentric, means for rotating the latter, a conveyer with which said eccentric is adapted to travel, a rod attached to said horse, a shaft attached to said conveyer and having a loop in its upper portion, said loop having a widened portion or

seat therein, in which the flattened portion of said shaft is adapted to engage and an eccentric-rod having a connection with said eccentric and a loop in its upper portion through which said shaft passes, the upper terminal of said loop being laterally deflected.

13. In an amusement device, a conduit, having upwardly-extending sides provided with flanges upon which a floor is supported, a track supported upon said conduit, a trolley-bar carrying trolleys or rollers, a conveyer attached to said trolley-bar and means for adjusting the height of said conveyer and trolleys.

14. In an amusement device, a trolley-bar having an upwardly-extending threaded stem, journals carrying trolleys through which said stem passes, nuts on either side of said journals for holding the latter in position, a conveyer and connections common to said conveyer and trolley-bar.

15. In an amusement device, a conveyer, a sprocket-chain having connections to said conveyer, a device simulating a horse or other animal pivotally mounted and actuated by said conveyer, means for imparting a rocking motion to said horse when desired, and means for actuating said conveyer and sprocket-chain in unison.

16. In an amusement device, a trolley-arm, a sprocket-chain attached to the latter, a track, trolleys carried by said trolley-arm and means for adjusting the height of said conveyer, trolleys and track with respect to each other.

17. In an amusement device, a conduit of horseshoe shape, an endless conveyer adapted to travel on said conduit, a sprocket-chain attached to said conveyer, sprocket-wheels adapted to engage suitable portions of said chain, openings in the sides of said conduit at or near the heel and toe portions thereof, for permitting the teeth of the sprocket-wheels to project therethrough and means for rotating said sprocket-wheels.

18. In an amusement device, an endless conveyer, means for propelling the same, said means consisting of a sprocket-chain attached thereto, sprocket-wheels for engaging said chain, upright shafts on which said sprocket-wheels are mounted, means for rotating said wheels, and yokes or pedestals secured to a suitable support in which said upright shafts have their bearing.

19. In an amusement device, a conduit of horseshoe shape, sprocket-wheels located at or near the heel and toe portions thereof, a conveyer actuated by said wheels, a series of chairs located in the spaces intermediate said conduit and the sprocket-wheels at the heel portion thereof, a series of girders extending between said chairs, and flooring or panels supported on said girders.

20. In an amusement device, a conduit, an endless conveyer adapted to travel adjacent thereto, sprocket-wheels located at or near the point where the reverse movement of said conveyer begins, a series of chairs arranged in spaces between said sprocket-wheels and con-

duits, girders extending between said chairs, other girders supported on either side of said conduit, and a series of panels or sectional floors adapted to be supported upon said girders.

21. In an amusement device, a conveyer, a conduit of horseshoe shape, sprocket-wheels located at or near the heel and toe portions of said conduit, the latter having openings therein, in proximity to said sprocket-wheels for the purpose of allowing the teeth of the latter to project therethrough, and engage the sprocket-chain adapted to actuate said conveyer, chairs supported in the spaces between said wheels and conduit, girders supported on said chairs and panels supported on said girders.

22. In an amusement device, an endless sprocket-chain composed of slotted links, mortise-blocks inserted therein, trolley bars or arms with their lower ends having an opening or mortise also secured in certain links of said sprocket-chain, rollers vertically mounted in said chain, said trolley-bars being adapted to travel in the inside of said conduit, rollers mounted horizontally on the upper end of said trolley-arms, and adapted to travel on the upper track of the conduit and sprocket-wheels mounted on vertical shafts at the heel and toe portions of the horseshoe curve for the purpose of actuating said sprocket-chain.

23. In an amusement device, a conduit of horseshoe-curve shape, a track secured on the top of said conduit, trackways vertically secured in said conduit, a conveyer consisting of a series of trough-shaped links adapted to travel on said top track, an endless sprocket-chain composed of a series of slotted links, mortise-blocks secured in said links, trolley bars or arms with their lower ends, having an opening or mortise also inserted and secured in certain links of said sprocket-chain, rollers vertically mounted on said chain and carried by said trolley bars or arms, and adapted to travel on the inside of said conduit, rollers mounted horizontally on the upper end of said trolley-arms, and adapted to travel on said top track, shafts vertically mounted in and between the circles of the heel and toe of the said horseshoe curve in a triangular position, sprocket-wheels mounted on said shafts for the purpose of engaging and actuating said sprocket-chain and conveyer, worm-wheels also mounted on said vertical shafts and placed in a triangle between the inner and outer circles, a plurality of oblique shafts with worms on each end thereof and adapted to engage with said worm-wheels, respectively at the heel and toe of the said horseshoe curve, whereby the endwise thrust of said oblique shaft is equalized, trailers pivoted to said conveyer, standards secured to said trailers, a horse or other figure pivotally mounted on said standards, a movable axle-shaft mounted upon each standard, wheels mounted loosely on said axle-shaft, eccentrics mounted on the hubs of

said wheels and connections from said eccentrics to said horse or figure for actuating the same.

24. In a device of the character named, a conveyer adapted to travel in a path conforming to the shape of a horseshoe, a sprocket-chain connected with said conveyer, sprocket-wheels suitably supported and adapted to engage said chain and means for rotating said wheels.

25. In an amusement device, a conveyer, a track upon which the latter is adapted to travel, a sprocket-chain connected to said conveyer, means for actuating said sprocket-chain, a device simulating a horse or other animal adapted to be actuated by said conveyer and means for oscillating or cantering said device.

26. In an amusement device, a conveyer, a track or support for the latter, a sprocket-chain connected to said conveyer, means for actuating said sprocket-chain, and means for adjusting said track and sprocket-chain relative to each other in combination with a device simulating a horse or other animal actuated by said conveyer.

27. In an amusement device, a sprocket-chain, means for actuating the latter, a conveyer connected to said chain, said conveyer consisting of links pivoted to each other, trailers pivotally attached to said links, devices simulating a horse or other object supported upon said trailers, and a track upon which said conveyer is adapted to travel.

28. In an amusement device, a conduit, a conveyer adapted to travel thereupon, a sprocket-chain connected to said conveyer, means for actuating said chain, a device simulating a horse or other animal, adapted to be propelled by said conveyer, chairs suitably supported, girders extending between said chairs, and flooring or panels supported upon said girders.

29. In an amusement device, a conveyer, a sprocket-chain connected thereto, sprocket-

wheels for actuating said chain, gears mounted on the shafts carrying said sprocket-wheels, diverging shafts provided with end thrusts and suitable bearings, said shafts having worms engaging said gears and means for actuating one of said shafts.

30. In an amusement device, the combination of a conveyer consisting of links pivoted to each other and trailers attached to said links, a sprocket-chain connected to said conveyer, a device simulating a horse or other object, adapted to be propelled by said conveyer, and means for actuating said chain.

31. In an amusement device, the combination of a conveyer consisting of links pivotally connected and trailers attached to said links, a device simulating a horse or other object, adapted to be propelled by said conveyer, means for actuating said conveyer and means for imparting a rocking motion to said device.

32. In an amusement device, an endless conveyer consisting of links pivotally connected and trailers attached to said links, means for causing said conveyer to travel in a path conforming substantially to the inner and outer edges of a horseshoe, a device simulating a horse or other object adapted to be propelled by said conveyer and means for actuating the latter.

33. In an amusement device, an endless conveyer consisting of links pivotally connected and trailers attached to said links, means for causing the latter to travel in a path conforming substantially to the inner and outer edges of a horseshoe, a device simulating a horse or other object, adapted to be propelled by said conveyer, and means for actuating the latter, in combination with means for imparting a rocking or cantering motion to said device.

WILLIAM J. GORDON.

Witnesses:

FORREST E. GORDON,
JOSEPH A. ROSS.