No. 724,218. PATENTED MAR. 31, 1903.

T. SULIKX.

HOBBY HORSE AND MERRY-GO-ROUND.

APPLICATION FILED OCT. 20, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

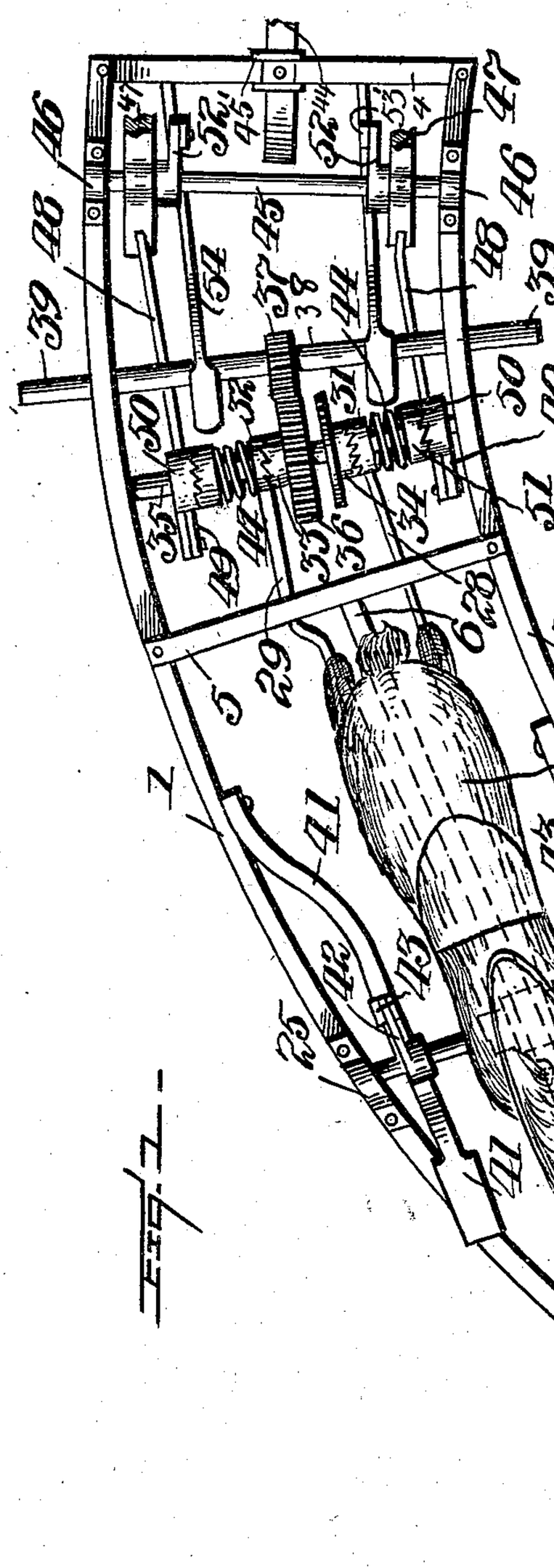

Fig. 1.

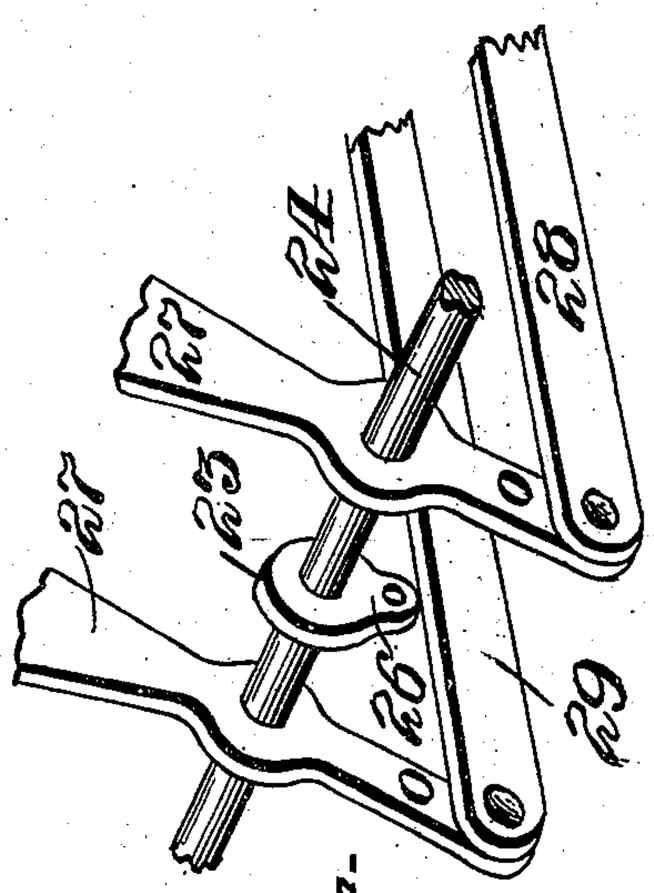

Fig. 2.

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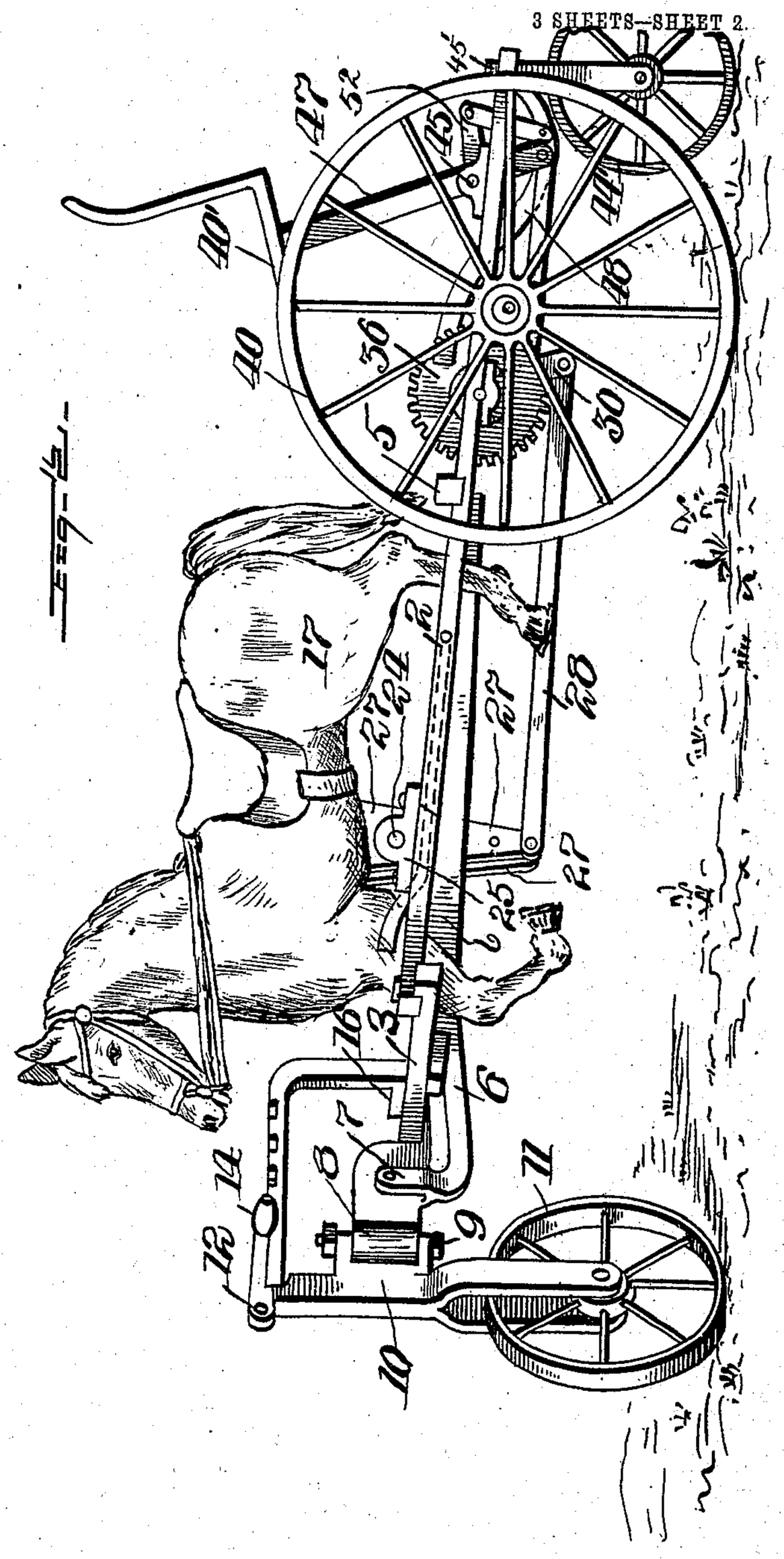

Fig. 1.

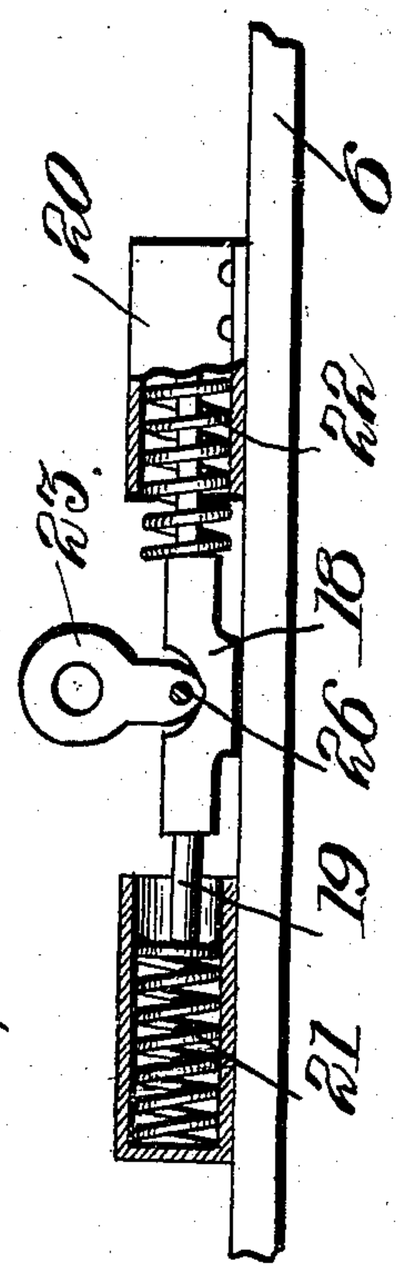

Fig. 5.

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NO MODEL. 3 SHEETS—SHEET 3.

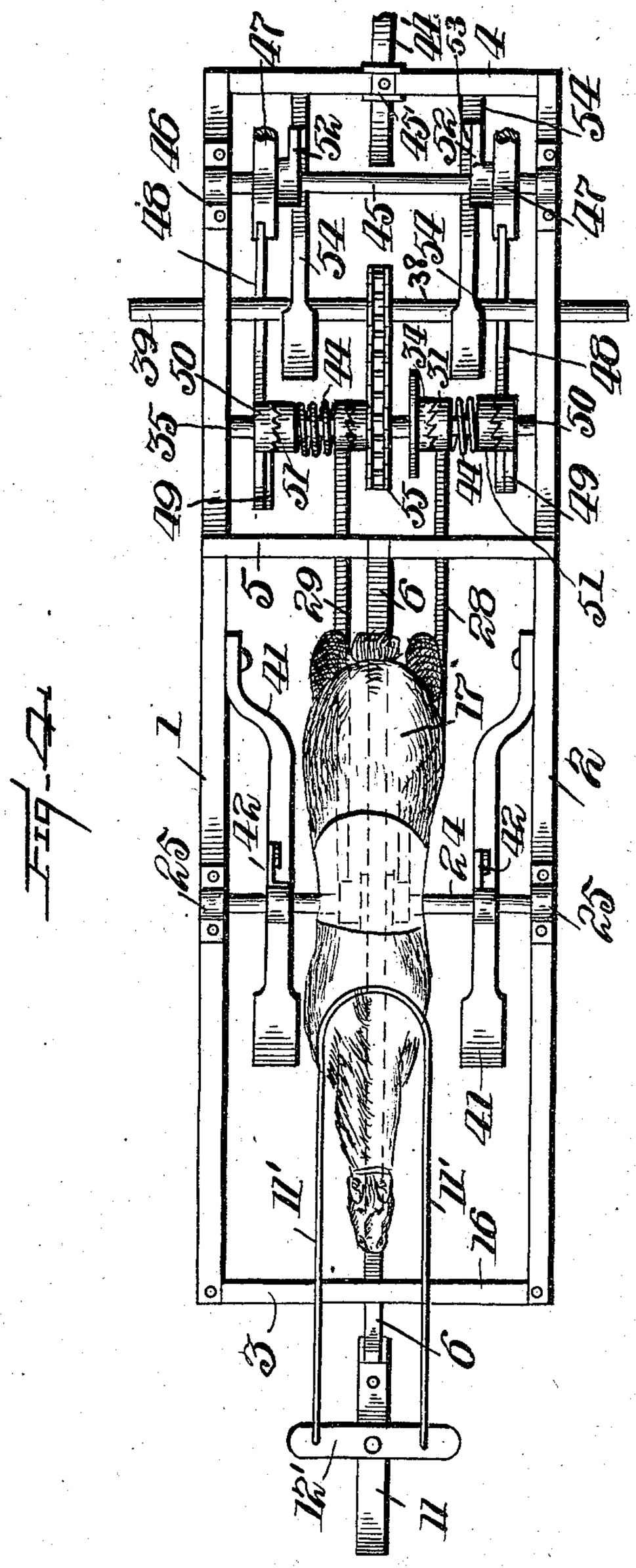

Fig. 4.

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UNITED STATES PATENT OFFICE.

THEODOR SULIKX, OF DUQUESNE, PENNSYLVANIA.

HOBBY-HORSE AND MERRY-GO-ROUND.

SPECIFICATION forming part of Letters Patent No. 724,218, dated March 31, 1903.

Application filed October 20, 1902. Serial No. 128,090. (No model.)

To all whom it may concern:

Be it known that I, THEODOR SULIKX, a citizen of the United States of America, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Hobby-Horses and Merry-Go-Rounds, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in hobby-horses and merry-go-rounds; and the invention has for its object to construct a hobby-horse in such a manner that the same may be caused to travel in a circular direction during the time the horse is being rocked or operated in the manner of a hobby-horse, and, further, to provide a device of this character which may be caused to travel in a straight line, if desired.

To this end the invention comprises a wheeled frame the front or guide rail of which is swiveled, whereby it may be turned at any desired angle with respect to the frame in order that the latter may be caused to travel either in a straight or circular direction, as may be desired. The rocking horse is mounted in the frame, and through the media of two levers and clutch mechanism actuated by the rocking of the horse movement is transmitted to the wheeled frame. A seat is also provided which is connected up by levers to actuating clutch mechanism, this seat being adapted to be actuated by the person or party seated thereon and rocked in such a manner that movement will be imparted to the wheeled frame when it is desired to operate the device in this manner instead of by the horse.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a top plan view of my improved hobby-horse and merry-go-round, the wheels and seat thereof being removed. Fig. 2 is a side elevation of my improved hobby-horse and merry-go-round. Fig. 3 is a side elevation, partially in section, of the spring-pressed plunger mechanism for returning the treadles to their normal position after each operation. Fig. 4 is a top plan view of a modified form of construction, showing the straight wheeled frame. Fig. 5 is a detail perspective view of a part of the rock-shaft and the actuating mechanism therefor.

To put my invention into practice, I provide a wheeled frame embodying an outside rail 1 and an inside rail 2, which are arranged on an arc of a circle, connected together at their forward end by cross bar or rail 3 and at their rear end by a like bar or rail 4 and at one or more points intermediate of their ends by a similar bar or rail 5. A reach 6 is connected to the cross bar or rail 5, and to the cross bar or rail 3, near the outside forward end of the frame, this reach has an upwardly-extending bifurcated end 7, in which is journaled the bearing 8, which receives the bolt 9, passing through apertured lugs carried by the fork 10, in which the wheel 11 is journaled. The fork 10 at its upper end has a lever 12 pivoted thereto, which is provided with a suitable handle 14. This lever is adapted to engage with one of the inclined notches 15, which are formed in the upper face of the rack 16, carried by the front rail or cross-bar 3. As the lever is curved, it will be observed that when placed in one of the notches 15, as shown in Fig. 1 of the drawings, the front wheel 11 will be held at an angle or position in which it has been placed, whereby a greater or lesser circle will be described by the device while in motion, or in event of the wheel being off side the device will be caused to travel in a straight-away line.

In order to actuate the device and impart movement thereto by rocking the horse 17, I mount on the reach-bar 6 a sliding block 18, provided with pistons 19 at each end, which operate in cylinders 20, mounted on said reach-bar 6. A spring 21 is mounted within one of the cylinders, between the pistons and the rear end of the cylinder, and in the other cylinder a spring 22 is mounted between the pistons and the end of the sliding block 18. This spring serves to return the parts to their normal position after each operation. A collar 23 is mounted on the rock-shaft 24, which is journaled in suitable bearings 25, carried by the outside rail 1 and the inside rail 2, this collar having an extension 26 connected

by a knuckle-joint to the sliding block 18. The rock-shaft has mounted thereon a pair of actuating arms or levers 27, which at their upper ends are attached to the body of the horse 17 in any suitable manner and at their lower ends are respectively connected to levers 28 29, attached at their rear end to the clutch mechanism. In order to vary the throw of the levers 28 29 and levers or arms 27, the latter are preferably provided with one or more holes, whereby the point of pivot of the levers 28 29 and levers or arms 27 may be varied. The vibratory levers 28 29 are connected at their rear end to cranks 30, carried by the loosely-mounted members 31 32 of the clutch, the members 33 34 of which are rigidly mounted on the shaft 35, journaled in suitable bearings carried by the rails 1 and 2. This shaft 35 carries a gear or pinion 36, which meshes with a similar pinion 37, carried by the rotating axle 38, the latter being journaled in suitable bearings carried by the rails 1 and 2 and having its ends extended beyond the rails to form spindles 39, on which the wheels 40 are mounted.

Where the device is adapted to travel in a circle, it will be evident that the outside wheel must travel considerably faster than the inside wheel, and to this end the outside wheel will be mounted loosely upon its spindle 39—that is, the wheel will be free to rotate independent of the spindle—while the inside wheel will be keyed to the spindle, so as to only revolve in unison with its spindle and the axle 38. Pivotally connected to the inner face of the rails 1 and 2 are treadle-levers 41, which extend underneath the rock-shaft 24 and are connected to cranks 42, carried by said shaft, by means of links 43. I preferably provide the rear wheel 44′, which may be journaled in the fork 45′, suitably connected to the rear cross-bar 4 of the frame.

With the mechanism as now described motion will be imparted to the device, whereby the same will be caused to travel in an arc of a circle, the size of the circle described being regulated according to the position in which the front wheel 11 has been placed. The operator seated upon the horse by rocking the same and by pressure on treadle-levers 41 causes the arms or levers 27 and the levers 28 and 29 to actuate the clutch mechanism and impart rotary movement to the shaft 35 and through the media of gear 36 and pinion 37 imparting a rotary movement to the axle 38, causing the device to travel in the arc of a circle, the springs 21 22 serving to return the respective treadle-levers 41 to the elevated position after each operation in order that the loosely-mounted members 31 32 of the clutch may be again operated to engage with the rigidly-mounted members 33 34 of the clutch mechanism. The loosely-mounted members 31 32 of the clutch mechanism are operated by the springs 44, arranged on the shaft 35.

I also provide a seat for the device and mechanism whereby the shaft 35 may be driven from the seat instead of from the horse, if desired, or both operating mechanisms may be operated in unison. To this end I provide a cross-shaft 45, journaled in suitable bearings 46, carried by the rails 1 and 2 and near the rear ends of the latter. On this shaft is mounted a pair of standards 47, the lower end of which extend some distance below the shaft 45, and are connected, respectively, to operating-levers 48, the other end of which are attached to crank-arms 49 carried by the loosely-mounted members 50 of the said operating clutch mechanism. On the upper ends of the standards 47 is mounted a suitable seat 40′. The clutch mechanism is of the ordinary form, comprising loosely-mounted members 50 and the rigidly-mounted members 51. Connected to the shaft 45, adjacent to each of the standards 47, is a pair of cranks 52, which are connected by links 53 to a pair of treadle-levers 54, the treadle-levers being suitably pivoted to the rear bar 4 of the frame. The treadle-levers are located at a suitable position where they may be depressed by the feet of the party sitting upon the seat. The seat is rocked back and forth by the operator, and through the media of the connecting-rods 48 and with the assistance of the treadle-levers 54 it will be observed that the clutch mechanism is operated so as to impart movement to the shaft 35 and through the media of the gear 36 and pinion 37 rotate the axle 38, so as to propel the device forwardly.

In Fig. 4 I show practically the same embodiment of my invention with a straight frame, illustrating how the device may be adapted for traveling in a straight-away line when desired. The mounting of the horse upon the frame is in the same manner, as is also the actuating of the device from the seat, and the same reference-numerals have been applied to the parts which are alike. In this construction of device I may employ a drive-chain 55 to operate over sprockets carried by the shaft 35 and axle 38, respectively, in lieu of the gear 36 and pinion 37, as heretofore stated, though it will be observed that I may employ a gear and pinion in the same manner as shown in Figs. 1 and 2 of the drawings. The front wheel 11 will in this device be swiveled, so as to be turned at different angles in order to guide the machine, and to this end the reins 11′, leading up over the neck of the horse 17, may be made rigid and connected to a suitable cross-head 12′ above the wheel 11, whereby the latter may be steered. In lieu of this any approved steering mechanism may be employed for the front wheel. With this form of device both of the main wheels would be preferably loosely mounted on their spindles, though the same may be keyed to the spindles, so as to rotate in unison with the axle.

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

1. In a device of the character described, the combination with a frame, an axle journaled therein, a guide-wheel secured upon the forward end of said frame, means for locking said wheel at different angles to the frame, wheels supporting the frame mounted upon said axle, a drive-shaft journaled in the frame, means for communicating motion from the drive-shaft to the axle, a rock-shaft journaled in the frame, treadle-levers connected thereto, actuating-arms mounted on the rock-shaft, a rocking horse secured to the upper ends thereof, levers secured to the lower ends of said arms, a clutch mechanism mounted on the drive-shaft, said levers secured thereto, a second pair of levers connected to said drive-shaft, said levers secured to the lower ends of a pair of standards, a cross-shaft journaled in said frame, carrying said standards, a rocking seat mounted at the upper end of the standards, and a second pair of treadle-levers, said levers connected to the cross-shaft and adapted to be worked from the seat, substantially as described.

2. In a device of the character set forth, the combination of a frame, an axle journaled therein, wheels thereon, a drive-shaft, clutch members mounted thereon, connecting means between said axle and drive-shaft, a rock-shaft mounted in the frame, treadle-levers pivotally secured to the frame mounted on said rock-shaft, actuating-levers mounted on said shaft, a rocking horse mounted at the upper ends thereof, levers secured to the lower ends of said actuating-levers, connecting means securing said levers to clutch members on the drive-shaft, a rocking seat mounted on a cross-shaft journaled in the frame, and means for communicating motion from said rocking seat to the drive-shaft to aid in driving the same, substantially as described.

3. In a device of the character set forth, the combination with a frame, having wheels swiveled at the front and rear ends thereof, an axle journaled in the frame, wheels carried thereby, for supporting the frame, a drive-shaft, connections between the drive-shaft and axle, clutch mechanism mounted on the drive-shaft, a rock-shaft mounted in the frame, actuating-arms secured thereto, a rocking horse mounted on the said arms, levers connecting said arms with the clutch mechanism of the drive-shaft, and treadle-levers mounted on the rock-shaft adapted to be actuated from the rocking horse, substantially as described.

4. In a device of the type set forth, the combination with a frame, an axle journaled therein carrying wheels for supporting the frame, a drive-shaft having clutch mechanism thereon, mounted on said frame, connections between said drive-shaft and axle for imparting motion to the latter, a rock-shaft mounted in the frame, actuating-arms secured to said shaft, bearing a rocking horse at their upper ends and being connected by the other to said clutch mechanism, a cross-shaft journaled in the frame, standards mounted thereon having a rocking seat thereon, treadle-levers secured to the shaft adapted to be actuated from the seat, levers connecting said standards to the clutch mechanism of the drive-shaft, whereby said device is adapted to be operated by both the rocking horse and seat, substantially as described.

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

THEODOR SULIKX.

Witnesses:
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JAS. V. MCMASTER.