June 24, 1924. 1,498,922

C. S. LEHMAN

TOY VEHICLE

Filed Dec. 17, 1923 2 Sheets-Sheet 1

Fig. 1.

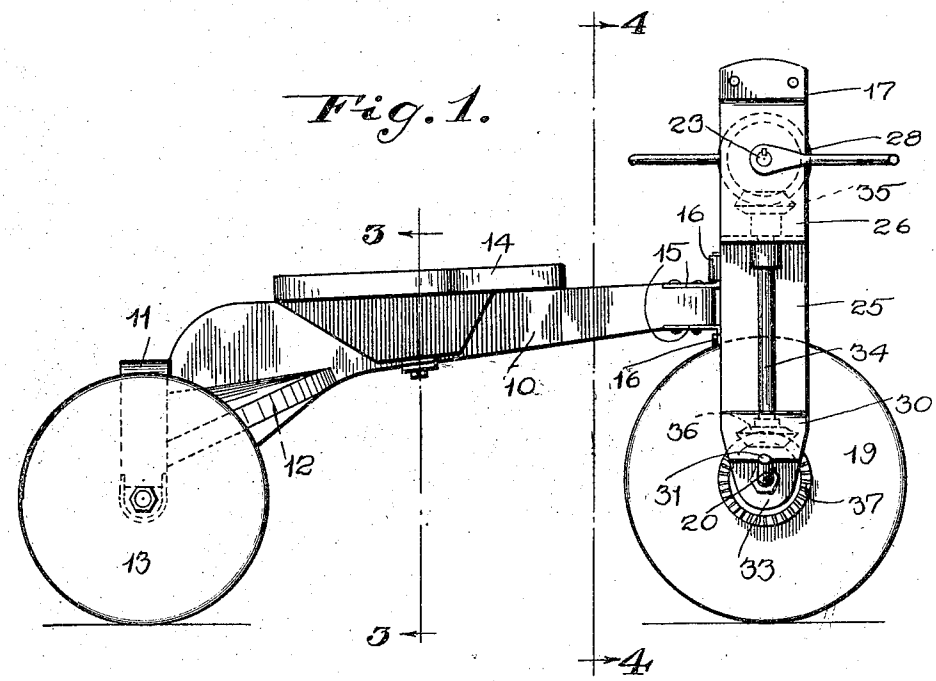
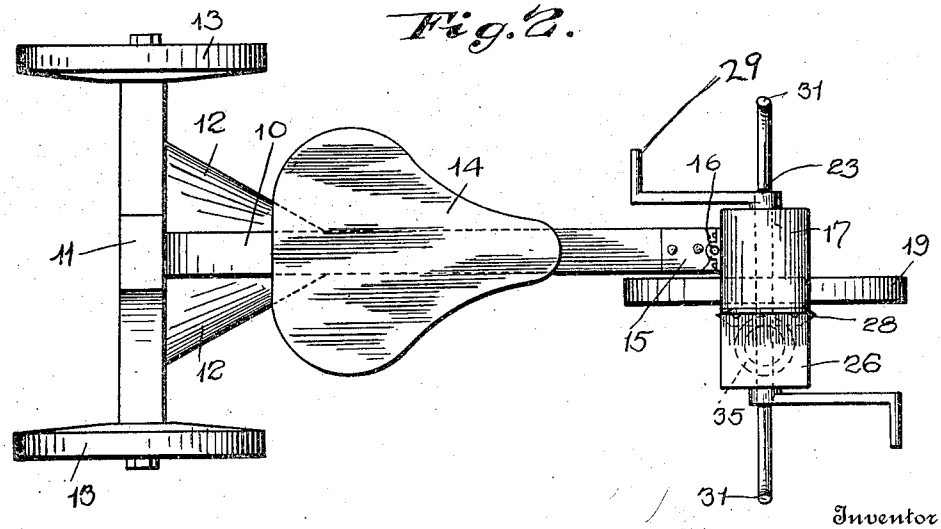


Fig. 2.



Inventor

C. S. Lehman.

By Watson & Coleman Attorney

June 24, 1924. 1,498,922

C. S. LEHMAN

TOY VEHICLE

Filed Dec. 17, 1923 2 Sheets-Sheet 2

Fig. 3.

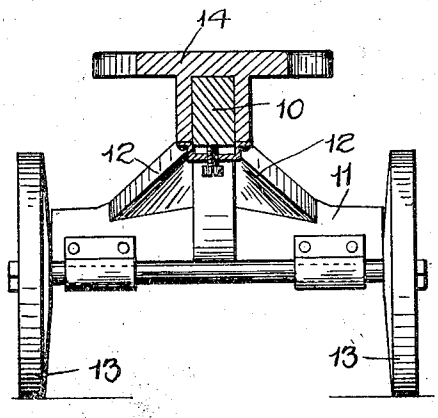


Fig. 4.

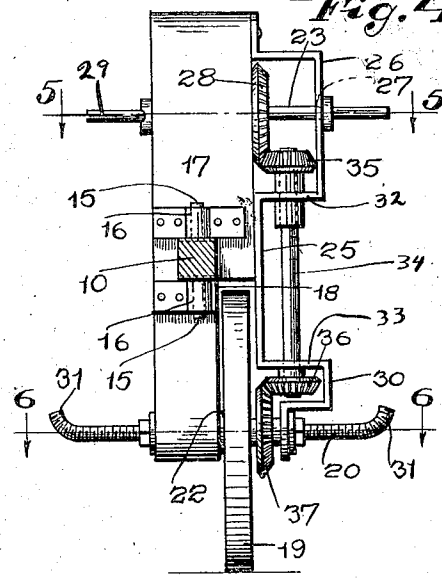


Fig. 5.

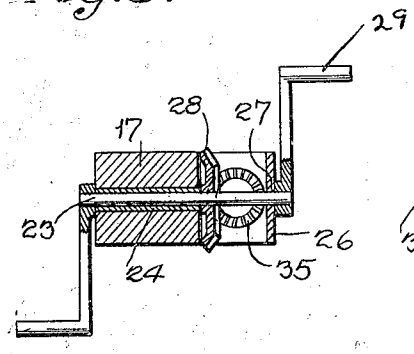
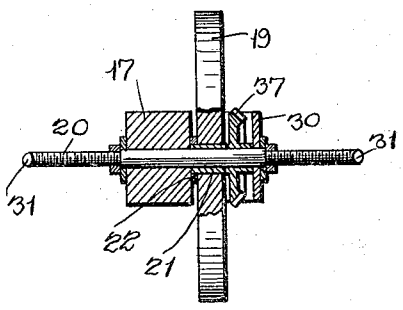


Fig. 6.



Inventor
C. S. Lehman.

By Watson E. Coleman Attorney

Patented June 24, 1924. 1,498,922

UNITED STATES PATENT OFFICE.

CHRISTIAN S. LEHMAN, OF LAWN, PENNSYLVANIA.

TOY VEHICLE.

Application filed December 17, 1923. Serial No. 681,288.

To all whom it may concern:

Be it known that I, CHRISTIAN S. LEHMAN, a citizen of the United States, residing at Lawn, in the county of Lebanon and State of Pennsylvania, have invented certain new and useful Improvements in Toy Vehicles, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in toy vehicles and more particularly to a hand propelled vehicle of a tricycle type. An important object of the invention is to provide a device of this character which may be very cheaply produced and readily constructed.

A further object of the invention is to provide a device of this character in which the steering wheel of the device forms the drive wheel thereof and is located at the front of the vehicle so that maximum control of the vehicle is given.

A still further object of the invention is to provide in a device of this character a drive wheel mounting or pivot shaft, the ends of which provide steering foot supports.

These and other objects I attain by the construction and arrangement shown in the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein like reference characters designate like parts throughout.

In the drawings:—

Figure 1 is a side elevation of a vehicle constructed in accordance with my invention;

Figure 2 is a plan view thereof;

Figure 3 is a section on the line 3—3 of Figure 1;

Figure 4 is a section on the line 4—4 of Figure 1;

Figure 5 is a section on the line 5—5 of Figure 4; and

Figure 6 is a section on the line 6—6 of Figure 4.

Referring now more particularly to the drawings, the numeral 10 indicates a longitudinally extending frame member having secured to its rear end a transversely extending bolster 11 braced to the frame member 10 as at 12. This bolster has secured thereto an axle provided upon the ends thereof with supporting wheels 13. The frame member 10 has mounted thereon a longitudinally adjustable seat 14 and is provided at its forward end with pivots 15 engaging in bearings 16 formed by straps carried by a vertically extending steering post 17.

The steering post 17 is provided at its lower end and at one side face thereof with a notch 18 of slightly greater depth than the thickness of the steering wheel 19. This steering wheel is mounted upon a rod 20 extending through the lower end of the steering post 17, the steering wheel having a bearing or bushing 21 receiving the rod 20. The face of the steering wheel next adjacent the wall of the notch 18 is held spaced from this wall by a flange 22 formed upon the bushing 21 or a similar flange formed upon the wheel proper, the former construction being herein disclosed.

Extending through the upper end of the steering post 17 is a rotatable shaft 23, the steering post preferably being bushed as at 24 to provide a mounting for the shaft. Secured to that side face of the steering post 17 having the notch 18 is a combined brace and guide member 25 which at its upper end is provided with an offset portion 26 in spaced relation to the adjacent wall of the steering post 17 at the point of passage therethrough of the shaft 23. This offset portion has an opening 27 rotatably receiving the shaft. Between the offset portion and the wall of the steering post 17 and abutting the inner wall of the offset portion a gear 28 is secured to the shaft 23 for rotation therewith. The ends of the shaft project outwardly of the offset portion 26 and the opposite face of the steering post 17 and have secured thereto oppositely directed operating cranks by means of which the shaft may be rotated. At its lower end the combined brace and guide member 25 is provided with a second offset portion 30 through which the rod 20 is directed. The end portions of the rod 20 project beyond the outer face of the offset portion 30 and the opposite face of the steering post member 17 for a considerable distance and are bent upwardly to provide foot rests 31 by means of which the steering post 17 may be rocked upon its pivots to guide the steering wheel 19. Directed through the lower horizontal portion 32 formed in providing the offset portion 26 and the horizontal portion 33 formed in providing the offset portion 30 is a vertical shaft 34, the upper end of which is provided with

a pinion 35 meshing with the gear 28 and the lower end of which is provided with a spur pinion 36. This spur pinion engages with a spur gear 37 secured to the steering wheel 19 so that when the cranks 29 are operated to rotate the shaft 23 this rotation is transmitted to the steering wheel to positively drive the same.

It will be obvious that by the construction such as above pointed out power may be applied by a person operating the vehicle by pulling the cranks 29 toward him and he may brace himself against this pulling action by setting his feet firmly upon the steering foot rests 31. This construction, therefore, provides for a full construction of the steering mechanism in addition to providing a drive and accordingly small children employing the device for amusement will have exercise not only of the legs but of the arms as well. It will be obvious that this structure is capable of a limited range of change and modification without materially departing from the spirit of my invention and I accordingly do not limit myself to such specific structure except as hereinafter claimed.

What I claim is:—

1. In a toy vehicle, a frame supported at its rear end by wheels, a steering post pivoted to the front end of the frame upon vertical pivots, a steering wheel rotatably mounted upon the lower end of the steering post, steering foot rests carried by the lower end of the post and adapted for the reception of feet and hand-operated means at the upper end of the steering post for rotating said steering wheel, including a combined guide and brace member secured to said steering post, a horizontal shaft directed through the upper end of the steering post and guide and having a gear, said shaft being provided with cranks whereby it may be rotated, a vertical shaft mounted in said guide and having a pinion engaging with said shaft at its upper end and at its lower end, a second pinion and a gear secured to said steering wheel and with which the last named pinion meshes.

2. In a toy vehicle, a frame supported at its rear end by wheels, a steering post pivoted to the front end of the frame upon vertical pivots, a steering wheel rotatably mounted upon the lower end of the steering post, steering foot rests carried by the lower end of the post and adapted for the reception of feet and hand-operated means at the upper end of the steering post for rotating said steering wheel, including a combined guide and brace member secured to said steering post, a horizontal shaft directed through the upper end of the steering post and guide and having a gear, said shaft being provided with cranks whereby it may be rotated, a vertical shaft mounted in said guide and having a pinion engaging with said shaft at its upper end and at its lower end, a second pinion and a gear secured to said steering wheel and which with the last named pinion meshes, said steering foot rests comprising the ends of a rod directed through the steering wheel and post and affording a pivot for the steering wheel.

In testimony whereof I hereunto affix my signature.

CHRISTIAN S. LEHMAN.