C. W. SPAULDING.

TOY TRICYCLE.

APPLICATION FILED JAN. 3, 1917.

1,276,587.

Patented Aug. 20, 1918.

3 SHEETS—SHEET 1.

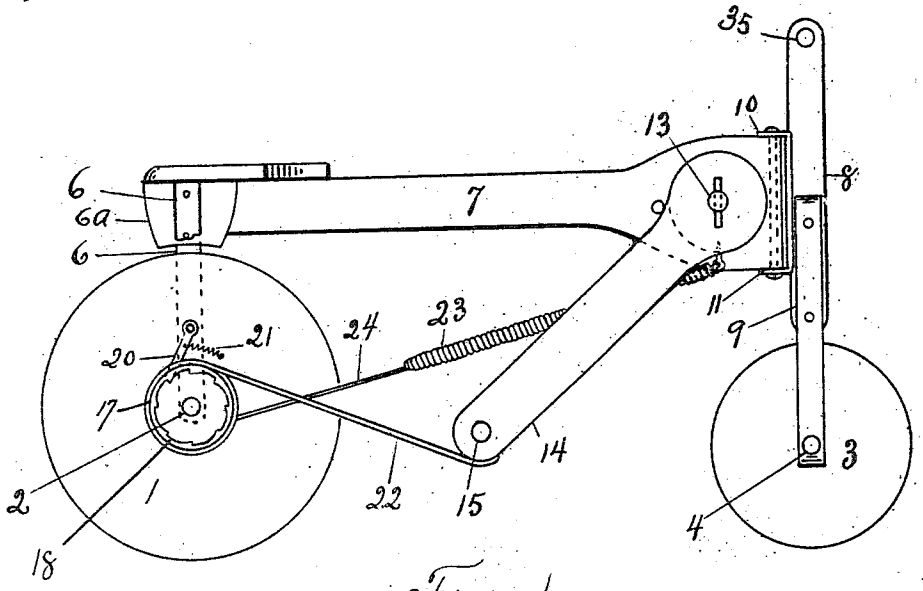


Fig. 1.

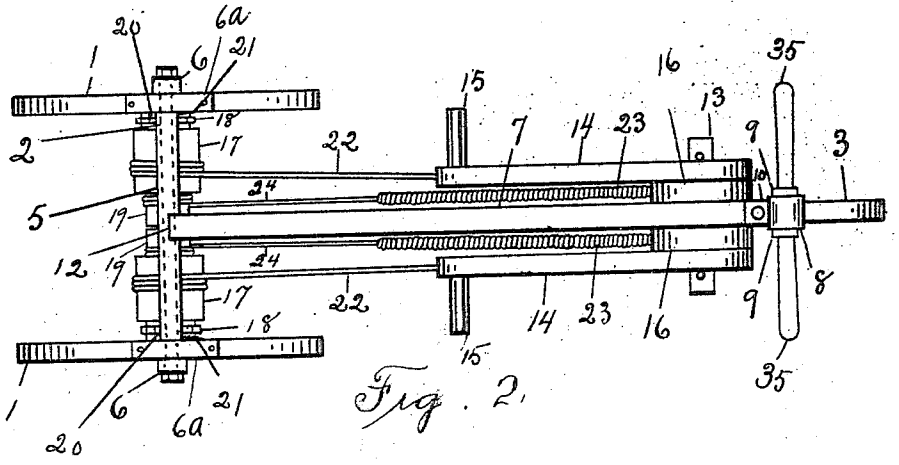


Fig. 2.

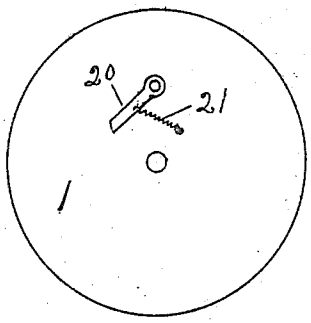


Fig. 3.

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3 SHEETS—SHEET 2.

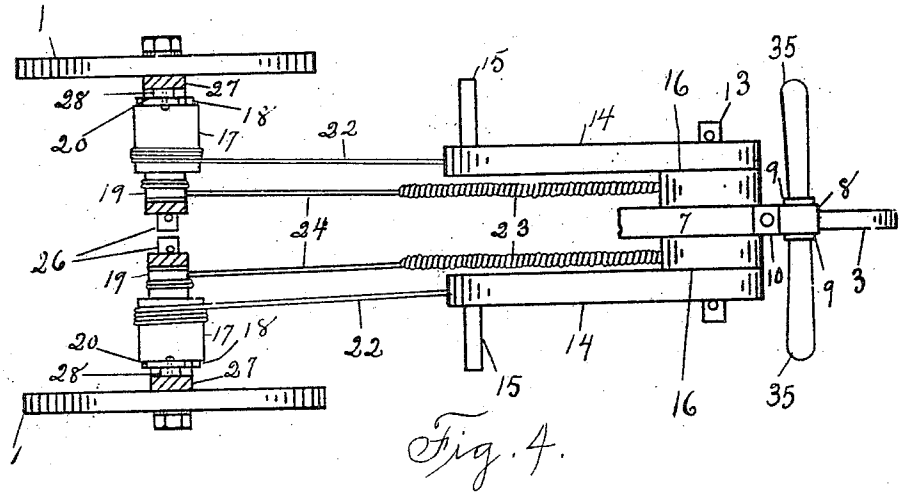


Fig. 4.

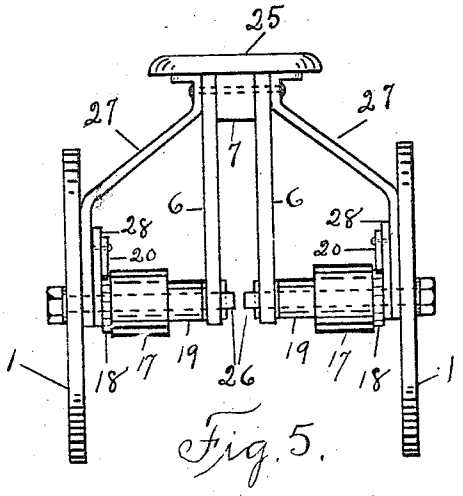


Fig. 5.

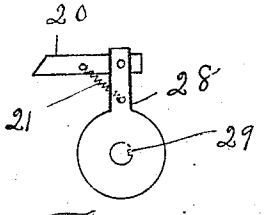


Fig. 6.

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3 SHEETS-SHEET 3.

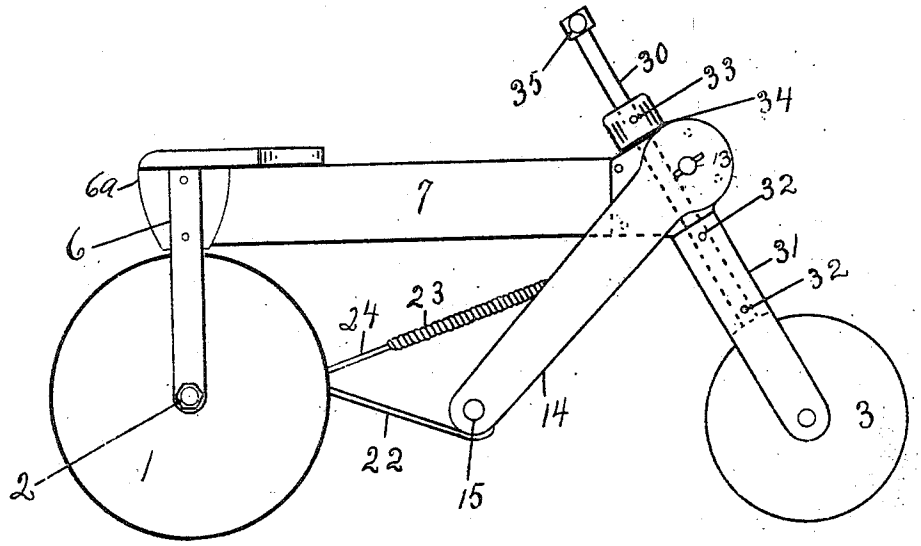


Fig. 7.

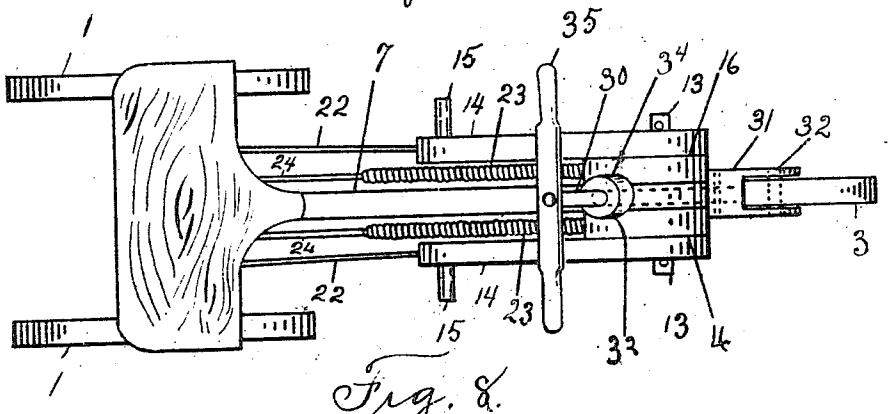


Fig. 8.

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TOY TRICYCLE.

1,276,587.

Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed January 3, 1917. Serial No. 140,358.

To all whom it may concern:

Be it known that I, CHARLES W. SPAULDING, a citizen of the United States, residing at Clinton, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Toy Tricycles, of which the following is a specification.

This invention relates to improvements in toy tricycles. It is especially designed to provide a vehicle for small children which is simple in construction and which is easily and conveniently operated.

In the drawings herewith accompanying and forming a part of this application Figure 1 is a side elevation of my improve tricycle, the hither wheel being removed and a part of one of the frame supporting uprights being broken away; Fig. 2 is a plan view of the same, the seat being removed; Fig. 3 is a detail elevation of the inside of wheel and pawl; Fig. 4 is a plan view of a somewhat different embodiment of the invention, the seat and a portion of the frame being removed; Fig. 5 is a rear end elevation without the wheel and operating mechanism of the form shown in Fig. 4; Fig. 6 is a detail view of the pawl which locks the drum to the axle and its supporting post; Fig. 7 is an elevation of a modified form of my device, and Fig. 8 is a plan view of same.

The same reference characters indicate like parts in the several figures.

Referring now to the embodiment of my invention shown in Figs. 1, 2 and 3, 1 represents the rear wheels, 2 the rear axle, 3 the front wheel which is also a steering wheel and 4 its axle, constituting the running gear. The frame comprises a transverse bar 5, two uprights 6 with two side blocks 6^a mounted on the rear axle outside the wheels and a longitudinal connecting bar 7. The front end of bar 7 is pivotally secured to a post 8 mounted on and between uprights 9 in which the axle of the front wheel is journaled. A convenient means for connecting bar 7 to post 8 is shown and consists of a U-iron 10 into which the end of the bar 7 projects and to which it is secured by a pivot pin 11. The bar 7 may have its rear end mortised into bar 5 as shown at 12. Mounted on a transverse pivot bar 13 set in bar 7 are treadles 14 provided with foot rests 15, one on each side of said bar. For convenience the treadles are spaced apart from bar 7 by spacing blocks 16. On the rear axle are two drums 17 having on their outer ends ratchets 18. The inner or adjacent ends 19 of the drum are preferably of smaller diameter than the main part. On the inside of the wheels are pivotally mounted pawls 20 which are held in yielding engagement with said ratchets by means of springs 21. Secured to the ends of the treadles 14 are cables 22 which pass more than once around the larger end of said drums 17. Secured to some stationary part of the device, for instance to the underside of the spacing block 16, are coil springs 23 carrying cables 24 which pass more than once around the reduced ends of the drums. This arrangement of treadles, drums and actuating mechanism gives great power and speed.

The operation of this embodiment of my invention is as follows.

The operator sitting on a seat 25 on the frame and straddling the bar 7 places his feet on foot rests 15 and presses the treadles down, preferably alternately, which imparts a partial rotation to the drums and by means of the pawl and ratchet imparts a forward motion to the machine. When the pressure is removed from the treadles the springs which were distended by rotation of the drums automatically retract and rotate the drums in the opposite direction, thereby lifting the treadles again to operative position.

In the embodiment of my invention shown in Figs. 4, 5 and 6 I show a different method of mounting the rear end of the longitudinal frame bar 7, a different way of mounting the seat and a different way of operating the drums, but the main features are substantially the same as shown in Figs. 1, 2 and 3. In Figs. 4, 5 and 6 the rear wheels are mounted on a divided axle 26. Inside the wheels mounted on the axle are inwardly curved uprights 27 which support the seat 25. On the inner adjacent ends of the axle are uprights 6 between which the longitudinal frame bar 7 is secured. In this case posts 28 are rigidly secured to the axle in any convenient manner as by a key 29 taking into a recess in the axle. Mounted on posts 28 are the operating pawls 20 held in yielding engagement with the ratchets on the drums by springs 21, as before.

The operation is substantially the same

except that in this case the forward rotation of the drums through the pawls and ratchets rotates the posts 28 and through them the axle and the wheels which are rigidly secured to the axle.

In the embodiment of my invention shown in Figs. 7 and 8 is shown a different method of mounting the steering wheel upon the frame bar 7. In this case there is a rod 30 extending diagonally downward through a diagonal hole near the front end of the bar. The lower end of this rod is inserted in an enlarged bifuracted extension 31 and secured therein in any convenient way as by pegs 32. The end of bar 7 rests upon said extension. Secured to rod 30 in any convenient manner as by a peg 33 is a collar 34 which rests upon the top of bar 7. The rod is provided with any convenient operating handle, as 35. The rod is rotatable relative to bar 7 for the purpose of steering the tricycle. This arrangement is cheaply constructed, and the rod being inclined presents the operating handle in a more convenient position for the rider.

I claim:

1. In a device of the character described, rear wheels and axle, uprights mounted upon the axle outside the wheels, a supporting frame including a transverse bar supported by said uprights and a longitudinal bar, operating mechanism for imparting limited rotary motion to the wheels and means for automatically returning the operating mechanism to ready position.

2. In a device of the character described, rear wheels and axle, uprights mounted upon the axle outside the wheels, a supporting frame including a transverse bar supported by said uprights and a connecting longitudinal bar, a seat rigidly secured to said bars, whereby one is braced relative to the other by the seat, a steering wheel pivotally attached to the front end of said longitudinal bar, operating mechanism for imparting limited rotary motion to the wheels and means for automatically returning the operating mechanism to ready position.

3. In a device of the character described, rear wheels and axle, a supporting frame including a transverse bar and a connecting longitudinal bar, uprights supporting said transverse bar upon the axle, a steering wheel pivotally attached to the front end of said longitudinal bar, drums loosely mounted on said axle, treadles pivotally attached to said longitudinal bar in front of the point where the steering wheel is mounted on said bar, cables passing around said drums and attached to the free ends of said treadles, means for locking the drums to the running gear and means for automatically returning the treadles to ready position.

In testimony whereof I affix my signature.

CHARLES W. SPAULDING.