Jan. 10, 1928.

1,656,128

F. F. TAYLOR

TOY VEHICLE

Filed Oct. 25, 1924

2 Sheets-Sheet 1

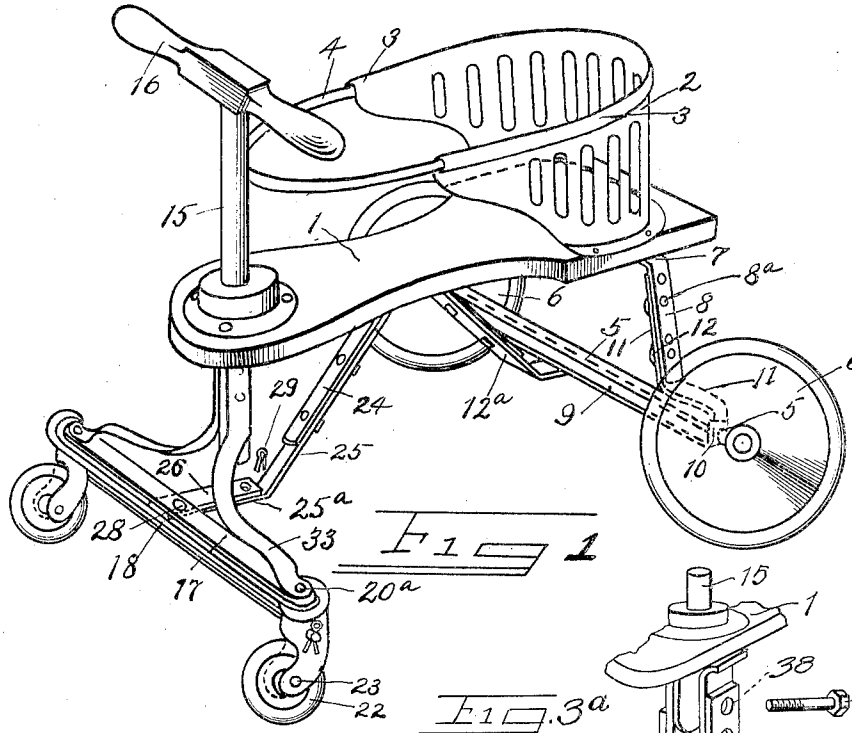


Fig. 1

Fig. 3a

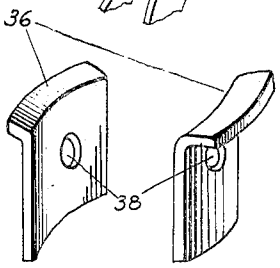


Fig. 3

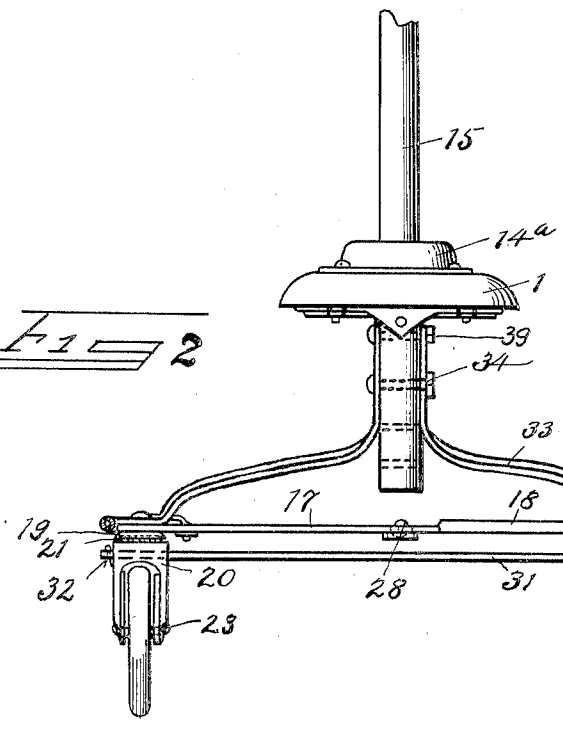


Fig. 2

INVENTOR
Frank F. Taylor

BY
Allen & Allen

ATTORNEYS

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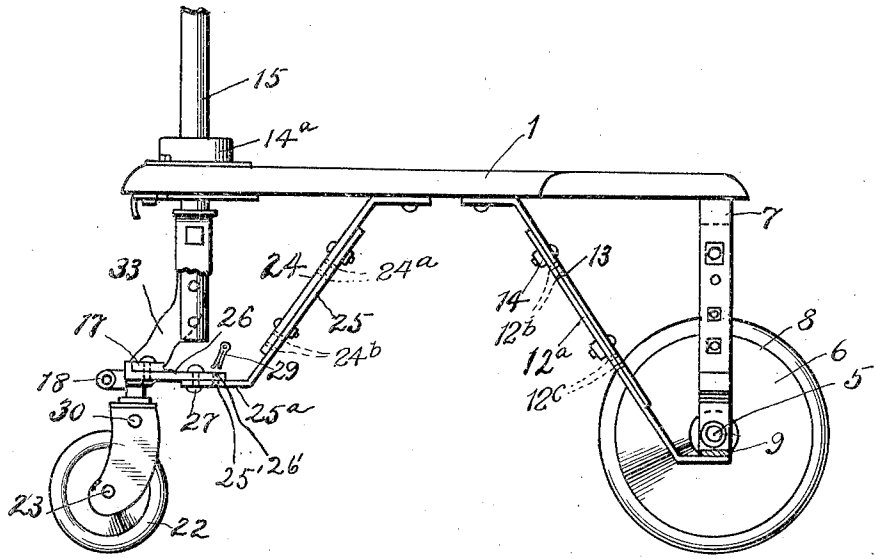


Fig 4

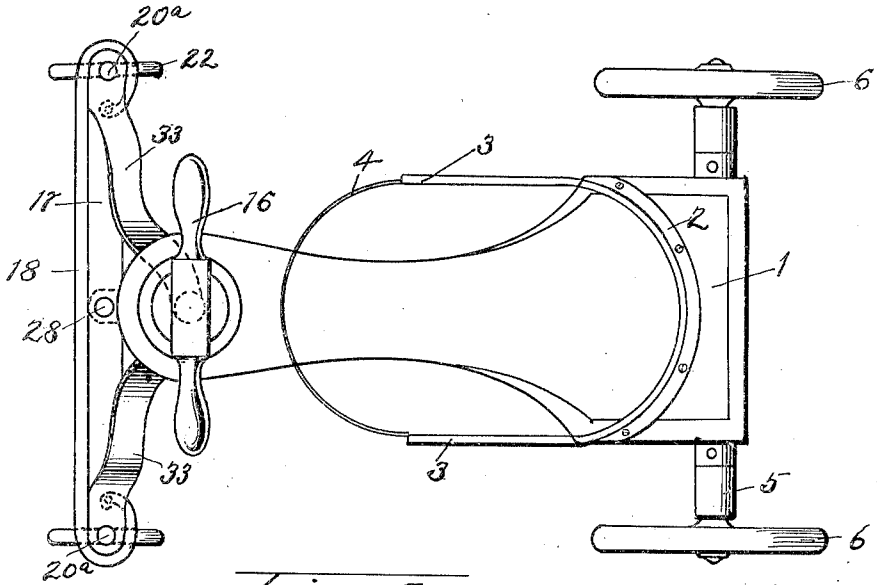


Fig 5

INVENTOR

Frank F. Taylor

BY

Allen & Allen

ATTORNEYS

Patented Jan. 10, 1928. 1,656,128

UNITED STATES PATENT OFFICE.

FRANK F. TAYLOR, OF CINCINNATI, OHIO.

TOY VEHICLE.

Application filed October 25, 1924. Serial No. 745,943.

My invention relates to vehicles which are used at various stages of a child's life, first as a baby walker, later as a steering walker, and finally as a coaster wagon.

It is the practice at present in the art, to provide a structure in which a single front wheel is used in the walker, with a steering column on which it is supperted, and in which a flat saddle-like board provides the seat for the child. When such devices are used for a baby walker, the seat is equipped with a ring, into which the baby is set, and the steering of the vehicle is prevented by fastening the handle against movement, and another form of front support using casters, is substituted for the single wheel.

A single wheel device is unsuitable for a coaster. A plain board without a back is also unsuitable for a coaster. The object of my invention is thus to provide a support for the board which is always four wheel, and to have a wide spread caster support at the front of the vehicle to secure against non-tipping. It is my object to provide for selectively either locking the steering post against rotation, and releasing the casters for action like regular caster wheels, or releasing the steering post for rotation, and locking the casters against movement, so that the vehicle can be steered.

It is my object to make the frame adjustable, including the steering post itself, so that the vehicle can be adjusted in size to take care of the growth of the child, and make the vehicle entirely satisfactory for the same child at various stages of his growth.

I accomplish my object by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawings:

Figure 1 is a perspective of the device.

Figure 2 is a front elevation of the board and steering and supporting mechanism.

Figure 3 is a detail perspective of the steering post adjustment piece.

Figure 3ª is a perspective view of the assembly of the steering post in extended position.

Figure 4 is a side elevation of the device, partly in section.

Figure 5 is a top plan view of the device.

I provide the usual board 1 of saddle-like character. On this board I erect a back piece 2, which is curved around to enclose partially the body of the child, and has a supporting bar adapted to fit into it, at the front. The top edge of the back is curled as indicated at 3, and a rod is provided, which is bent into a loop 4, and its ends thrust into the curled rim of the back, said rim acting as a socket for the ends of the loop at both sides. The loop is a tight enough fit so that it will stay firmly in place against the movements of an infant. The back support of the board is formed of a metal frame, that journals an axle 5, on which are the two wheels 6, 6.

This frame is formed of a top piece 7 having its ends curved down at 8, 8. The ends 8, 8, are pierced with a series of holes 8ª. The axle journal is a piece 9, bent up at the ends at 10, 10, where the axle support is located, and then bent inwardly at a slant forming the ends 11, 11, which have holes in them for securing bolts. The bolts 12 are used to secure the ends 11, against the inner faces of the ends 8, 8. Due to the arrangement of a series of holes, the bolts can be shifted, to make the back support higher or lower at will.

A central brace is provied comprising a piece 12ª riveted to the piece 9, and a piece 13, secured to the underside of the seat board. The pieces 12ª and 13 have bolts 14 for securing them together, and a series of holes as at 12ᵇ—12ᶜ in each piece permits of adjustment of the brace, to correspond to the adjustment of the rear axle support.

The board is equipped at the front with a boss 14ª, of wood, preferably through which passes the steering post 15, said post having a handle 16, of desired nature, that serves as a grip for the child, whether used in steering the vehicle or not.

The front axle 17 is in the form of a metal strip, to the ends of which are secured the front bumper bar 18, which extends across the front of the axle, and is preferably formed of a piece of metal rod covered with a rubber tube. At the undersides of the axle strip 17, are secured the upper bearing race portions 19 of the caster bodies. The main portions of the caster bodies, as shown at 20 have their spindles 20ª passing up through the axle strip, and have the balls 21 between the portions 19 and 20.

The caster wheels 22 are mounted in the bodies on the usual pins 23.

A center brace for the front axle is formed

of a piece of metal 24 secured to the under side of the seat and extending forwardly and downwardly, and a second piece 25 held adjustably, as in the instance of the other brace, to the piece 24, by means of bolts which can be set in interspaced holes as indicated at 24^a—24^b in the piece 25.

The forward end of the piece 25 is turned to a horizontal plane at 25^a and has a metal plate or strip 26, pivoted thereto at 27 by means of a rivet or the like. This piece 26 is also secured fixedly to the front axle strip as by a rivet 28. The piece 26 has a cotter pin hole 26^a therein, located behind the pivot at 27, and the piece 25 also has a cotter pin hole 25^a. A cotter pin 29, set through the two holes, will hold the front axle in a rigid position crosswise of the vehicle. The removal of the cotter pin will permit the front axle strip to swivel.

The caster bodies are provided with holes 30 therein which are set so that when a rod 31 is strung through the holes in the two bodies and held in place by a cotter pin 32, the two caster bodies cannot rotate. Also the holes are so arranged that the two caster bodies are slightly toed in so that if the front axle piece is swivelled with relation to the vehicle, this will result in steering the vehicle by means of the caster wheel. However, if the front axle strip is held fast by the cotter pin 29, and the rod removed from the caster bodies, then the vehicle will steer only by applying unequal propelling motion at one side then on the other. In this latter case the vehicle will be used as a baby walker, and in the former, as a foot propelled car, or a coaster.

The steering post is fitted with a pair of arms 33, which have half circle ends secured through the steering post by means preferably of a lower bolt 34, and an upper bolt 39 which pass through holes in the steering post, so that it can be adjusted in height.

The arms 33 extend outwardly and are bent forwardly, where they are secured to the front axle strip by means of the swivel pins of the front caster bodies.

The extension of the arms to the front permit of the steering post and the pivot pin 27 being in line, to facilitate steering. In order to form a support for the front of the vehicle when the steering post is raised, I provide a pair of half circle fittings 36 so that the length of the arms 33 may be extended therewith. Each fitting has a bolt hole 38 in it for securing to the steering post, which has holes 38^a below the hole or holes which are used for holding the two arms under normal conditions. A bolt 39 can be set through the post, holding the two fittings in place thereon just above the upper ends of the two arms, so as to form a proper bearing.

It may thus be observed that the device set at its lowest height, with the caster wheels free to swivel, and the front axle held tight, will serve as a baby walker, and that when the caster wheels are held against swivelling, and the front axle freed for movement, that the movement of the steering wheel will result in a swivelling of the front axle on the pivot pin or rivet 27. This pivot is preferably in the same line as the axis of the steering post, so that steering will be easy.

The back for the seat will be equipped with the baby confining rod when the device is in use as a baby walker, but the rod may be removed when the structure is used by an older child either as a walker, or as a coaster.

The adjustments in height naturally make the device one which can be accommodated to various sizes of a child or children using it.

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

1. In a child's vehicle the combination with a seat board, rolling support therefor at the back, and a roller support at the front, the latter comprising caster wheels, an axle and means for mounting the caster wheels so as swivel with relation to the axle, and means for inhibiting the swivelling of said means.

2. In a child's vehicle the combination with a seat board, rolling support therefor at the back, and a roller support at the front, the latter comprising caster wheels, an axle and means for mounting the caster wheels so as to swivel with relation to the axle, and means for inhibiting the swivelling of said means, and means for retaining the axle so as to swivel with relation to the seat, and means for inhibiting said swivelling action of the axle.

3. In a device of the character described, the combination of a seat, a rear rolling support therefor, and a front support therefor, said front support comprising an axle, means for securing it to the vehicle, a steering device for the axle, and casters having housings mounted so as to swivel on the axle, and means passing through both housings to hold the wheels against swivelling motion.

4. In a child's vehicle the combination with a seat board, rolling support therefor at the back, and a roller support at the front, the latter comprising caster wheels, an axle and means for mounting the caster wheels so as to swivel with relation to the axle, and means for inhibiting the swivelling of said means, the roller support at the back and front being secured to the seat board adjustably as to height.

5. The combination in a child's vehicle of a seat, a movable steering truck, casters on the truck, and means for locking the truck

against movement and locking the casters against movement, and means for moving the truck.

6. In a vehicle for teaching babies to walk, a board having a narrow intermediate portion, with front and rear rolling supports having spacing to prevent tipping, the front rolling supports formed as swivelled casters to avoid necessity of manual steering, and a support for the baby located on said board, and having a formed back located behind the intermediate portion, and a baby confining element projecting forward from the upper portion of the formed back so as to overhang and lie above the plane of the narrow intermediate portion, sufficiently that a baby when a-straddle of the said narrow portion in exercising may place himself forward so as to be free in the exercise of its limbs, from confinement by said back and whereby when resting upon the device may seat himself in the back.

7. The combination in a child's vehicle, of a front steering truck, swivelled caster bodies on the truck, casters rotatably mounted in the bodies, and means for engaging the two bodies and holding them against movement.

8. The combination in a child's vehicle, of a front steering truck, swivelled caster bodies on the truck, casters rotatably mounted in the bodies, and means for engaging the two bodies and holding them against movement, comprising a rod, and holes in the bodies through which the rod will pass.

9. The combination in a child's vehicle, of a front steering truck, swivelled caster bodies on the truck, casters rotatably mounted in the bodies, and means for engaging the two bodies and holding them against movement, comprising a rod, and holes in the bodies through which the rod will pass, said holes being arranged to engage the bodies so as to direct the casters to toed-in position, to facilitate steering.

10. The combination in a child's vehicle, of a seat, a rear rolling support, and a front rolling support, the front rolling support comprising an axle element, casters on said element, a steering post, means on the axle element engaging the post, means for adjusting the height of the front support, and a bearing for the steering post beneath the seat, and means for adjusting the position of said bearing.

11. The combination in a child's vehicle, of a seat, a rear rolling support, and a front rolling support, the front rolling support comprising an axle element, casters on said element, a steering post, means on the axle element engaging the post, means for adjusting the height of the front support, and a bearing for the steering post beneath the seat, and means for adjusting the position of said bearing, said bearing comprising portions of the post engaging means of the axle, and said adjusting means comprising an additional element mountable on the steering post above the said post engaging means.

12. The combination in a child's vehicle, of a seat, a rear rolling support, and a front rolling support, the front rolling support comprising an axle element, a steering post, means on the axle element engaging the steering post, caster wheels on the front support, and means engaging the seat, and selectively engaging the said axle, to hold it against movement, and means for locking the caster wheels against swivelled movement.

13. The combination in a child's vehicle, of a seat, a rear rolling support, and a front rolling support, the front rolling support comprising an axle element, a steering post, means on the axle element engaging the steering post, caster wheels on the front support, and means engaging the seat, and selectively engaging the said axle, to hold it against movement, and means for locking the caster wheels against swivelled movement, said means comprising a lengthwise brace, a plate secured to the axle and pivoted to the brace in line with the steering post, and a cotter pin, said plate and brace having holes for engagement by the cotter pin to hold the plate, and hence the axle against pivotal movement.

14. In a child's vehicle, a body formed with an enlarged rear seat portion and a reduced forward portion, wheeled supporting frames for said body, a seat back and side forming member secured on and extending upwardly from the seat portion of said body, and a confining member mounted on and supported solely from said seat forming member and extending forwardly from the upper forward ends thereof and thereacross above the reduced forward portion of the body.

15. A foot propelled vehicle comprising a seat platform of substantially the same length as the vehicle, a rear axle and rear wheels partially supporting the platform, a substantially vertical steering post arranged in close proximity to the front edge of said platform and mounted in the latter, a handle fixed to the post above the platform, a front bolster arraged below the platform and extending forwardly of the front edge of the latter, said bolster comprising a substantially straight cross bar and forwardly and laterally diverging metal arms, each arm extending downwardly from the platform to a point forwardly from the front edge thereof and caster wheels connected to the ends of the cross bar and having their axes arranged forwardly of the front edge of the platform.

FRANK F. TAYLOR.

DISCLAIMER

1,656,128.—*Frank F. Taylor*, Cincinnati, Ohio. TOY VEHICLE. Patent dated January 10, 1928. Disclaimer filed October 4, 1930, by the assignee *The Frank F. Taylor Company*.

Hereby enters a disclaimer limiting claim 6 of said patent as follows:—

By restricting the scope of claim 6 to a toy vehicle which includes a post provided with a handle extending laterally from each side thereof to distribute the weight of the baby.

By restricting the scope of claim 6 to a toy vehicle in which the board does not extend along the outside of the child's legs.

[*Official Gazette October 21, 1930.*]