March 4, 1924. 1,485,834

D. V. DAVIS

TOY CAR

Filed March 31, 1920

Fig. 1.

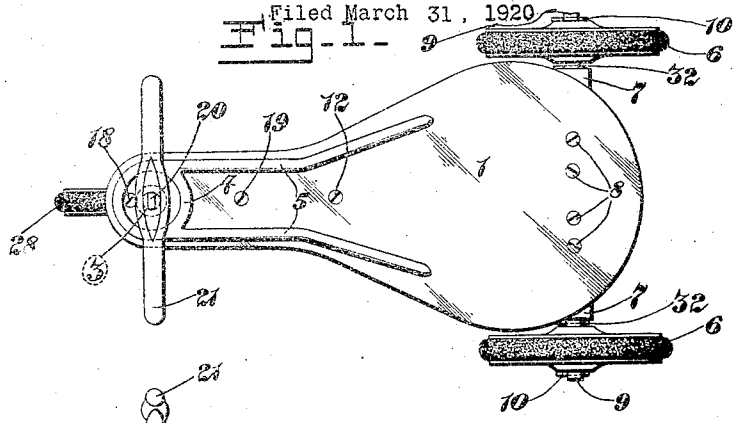


Fig. 2.

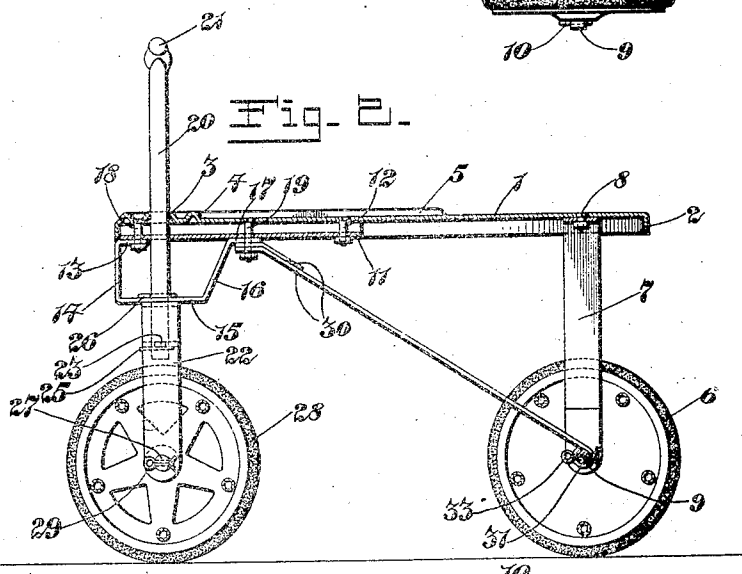


Fig. 3.

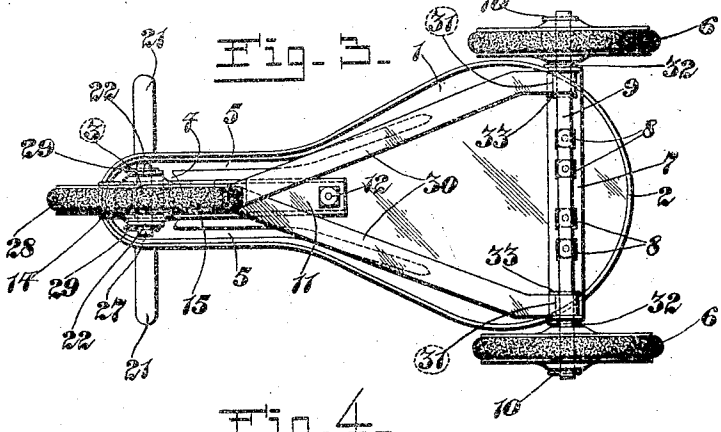
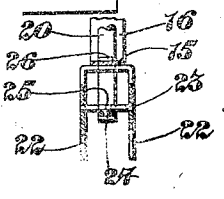


Fig. 4.



Attest.

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UNITED STATES PATENT OFFICE.

DONALD V. DAVIS, OF ST. LOUIS, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO JAKE S. BRAUNIG, OF ST. LOUIS, MISSOURI.

TOY CAR

Application filed March 31, 1920. Serial No. 370,071.

To all whom it may concern:

Be it known that I, DONALD V. DAVIS, a citizen of the United States, residing at the city of St. Louis and State of Missouri, have invented new and useful Improvements in Toy Cars, of which the following is a specification.

This invention relates to improvements in toy cars, and consists in the novel construction hereinafter disclosed.

An object of the invention is to provide a device of the character mentioned which may be economically manufactured and which will be durable in use.

Another object of the invention is to porvide an all-metal toy car having the body thereof so formed as to have relatively great strength and which will have sufficient resiliency in the structure to prevent jar to the user when in use.

Additional advantages and features of the construction will be apparent from the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a plan view.

Fig. 2 is a vertical section.

Fig. 3 is a bottom plan view.

Fig. 4 is a detailed view of a portion of the steering mechanism.

As illustrated in the drawing the invention includes a racket-shaped plate 1 having a wide rear portion forming a seat and a narrow portion extending forwardly from the seat to the forward end of the plate, leaving free play for the legs of the child at the sides of the narrow portion throughout the length thereof. The plate is provided with a depending reinforcing flange 2. The body portion is preferably stamped from relatively thin gauge metal so that it will provide a seating portion having sufficient resiliency to make it comfortable for the operator when used. Near the front of the body portion is an opening 3 for the steering post. Around the opening and in order to reinforce the front end of the plate 1 an annular bead 4 is formed. Beads 5 formed near each side of the narrow portion of the plate extend backwardly some distance from the point at which the plate commences to widen into the wide resilient seating portion so that the entire narrow portion of the plate will be sufficiently reinforced to prevent collapsing or bending thereof. By providing the reinforcing beads 4 and 5 and the flanges 2 the seat plate may be made of very light material and yet have sufficient strength to support the weight of the user.

The rear wheels 6 of the car are supported by a U-shaped bracket 7 having its central portion extending transversely across and attached to the seating plate by screws 8. A rear axle 9 extends through openings near the extremities of the U-shaped bracket 7, the wheels fitting over the ends of the axle upon which they are revoluble, and being retained in any suitable manner, for instance, by cotter pins 10.

A reinforcement in the form of a channel plate 11 extends longitudinally beneath the narrow portion of the plate. This channel plate is held rigid with the plate 1 by bolts 12. A bracket having a horizontal portion 13, a vertical portion 14, a lower horizontal portion 15, an inclined leg 16, and a horizontal portion 17, is secured beneath the narrow portion of the plate 1 by bolts 18 and 19 passing through the reinforcing plate 11. This bracket constitutes a support for a steering post 20 having at its upper end a handle 21.

From the foregoing it will be seen that a highly desirable and important feature of my invention consists of the plate 1 which is relatively thin and resilient and which is so constructed and arranged as to form a wide resilient seating portion near the rear end thereof, having a smooth upper surface. The extreme rear end of the resilient plate is strengthened by the bracket 7. This resilient plate, as clearly shown in Figs. 1 and 3, is substantially racket-shaped, the wide resilient seating portion having its side edges converging for a distance, and terminating in a narrow portion extending forwardly to the forward end of the plate leaving free play for the legs of the child at the sides of the narrow portion throughout the length thereof. Thus there are no lateral projections at the sides of the narrow portion to interfere with the legs of the child working at the sides of said narrow portion, as such projections would interfere with the use of the car and hurt the legs of the child riding it.

The reinforcements 5 and 11, by which the narrow portion of the plate is strengthened, terminate in front of the seating portion of the plate, thereby providing a perfectly

smooth and resilient seat between the bracket 7 and the rear ends of said reinforcements.

A fork 22 having a lateral plate 23 is attached to the lower end of the steering post, the steering post being held from rotation in respect of the fork by forming a squared extremity 24 at the end of the post which seats in a squared opening in the lateral plate 23. A cotter pin 25 extends through an opening in the squared portion 24 at the end of the steering post and serves to hold the steering post in connection with the fork. A cotter pin 26 is passed through an opening in the steering post just above the upper face of the section 15 of the supporting bracket and prevents vertical movement of the steering post in its mounting. A shaft 27 extends between the two branches of the fork 22 near its lower extremity and carries the front wheel 28, the shaft 27 being removably secured in its mounting by cotter pins 29.

The rear axle is braced by a pair of struts 30 that extend from the bolt 19 to which they are attached obliquely outwardly and are connected with the rear axle, eyes 31, being formed at the extremities of the strut for that purpose. It will be understood in mounting the rear axle 9 that it is slipped endwise through the openings in the extremity of the bracket 7 and through the eyes 31, the rear axle being held from lateral motion by cotter pins 32 extending through the axle at the outside of the bracket 7, and additional cotter pins 33 extending through the axle adjacent to the inner face of the struts. The struts 30 are of metal having a slight resiliency in order to permit a slight springing motion in the body or seat of the car.

The toy car constructed in accordance with the present invention is extremely durable, there being no parts that will readily break. The seat of the car is so designed that it will have sufficient spring to avoid shock and jar to the user. The construction of the car is such that it may be readily assembled and disassembled, thereby permitting it to be shipped in a "knock down" condition. The assembly of the car is sufficiently simple so that it requires no skill in assembling the parts.

I am aware that the structure may be modified in certain details without departing from the spirit and scope of the invention. I do not limit myself therefore to the exact details shown and described, but what I claim and desire to secure by Letters Patent, is:—

1. A toy car, comprising a relatively thin racket-shaped metallic plate composed of a wide rear portion forming a resilient seat and a narrow portion extending forwardly from the seat to the forward end of the plate, leaving free play for the legs of the child at the sides of the narrow portion throughout the length thereof, a reinforcing element secured to the under side of the narrow portion of said plate, an axle shaft, a bracket secured to the under side of the wide portion near the rear end thereof and having its arms extending downwardly and connected to said shaft, wheels on the end portions of said shaft, struts bracing the ends of the bracket arms and extending forwardly and connected with said reinforcing element, a bracket supported near the forward end of said plate, a steering post extending through said plate and through said reinforcing element and said last-named bracket, and a wheel controlled by said post.

2. A toy car, comprising a resilient metal plate having a substantially wide seating portion near its rear end and a relatively narrow portion extending forwardly from the seating portion to the forward end of the plate, leaving free play for the legs of the child at the sides of the narrow portion throughout the length thereof, reinforcing beads near the marginal edges of the narrow portion extending rearwardly for a distance into the wide rear portion, a bracket secured to the under side of the wide rear portion and having its arms extending downwardly, leaving a smooth resilient seating portion between the rear ends of said beads and said bracket, an axle shaft extending through the lower ends of the arms of said bracket, wheels on said shaft, and a steering wheel device at the narrow forward end of the plates.

3. A toy car, comprising a metallic plate forming a wide seating portion at its rear end and a narrow portion at its forward end, a marginal depending reinforcing flange around the edge of said plate, reinforcing beads in the narrow forward portion of said plate extending rearwardly for a distance into the wide portion thereof, a U-shaped bracket having its central portion extending transversely across the under side of the wide portion of said plate a considerable distance rearwardly from the rear ends of said beads, leaving a flat resilient seating portion between said bracket and the ends of said beads, an axle shaft passing through the lower ends of the arms of said bracket, wheels on the end portions of said shaft, struts having their lower ends connected with said shaft near the ends of the arms of said bracket and having their forward ends secured to the narrow portion of said plate, and a steering device at the forward end of said plate.

4. A toy car, comprising a resilient metallic plate which is substantially racket-shaped providing a wide seating portion at its rear end and a narrow portion extend-

ing forwardly to the forward end of the plate, leaving free play for the legs of the rider at the sides of the narrow portion throughout the length thereof, reinforcing structure extending to the connection of the narrow portion with the wide portion and terminating in front of the seating portion of the plate, a steering device at the forward end of the plate, a bracket supporting the rear end of the plate leaving a resilient seating portion between the bracket and said reinforcing structure, an axle shaft in connection with said bracket, and wheels on the ends of said axle shaft.

5. A toy car, comprising a resilient metallic plate which is substantially racket-shaped having a wide seating portion at its rear end and a narrow portion extending to the forward end of the plate, leaving free play for the legs of the rider at the sides of the narrow portion throughout the length thereof, a supporting bracket for the rear end of the seating portion of the plate, reinforcing structure for the narrow portion of the plate terminating in front of the seating portion, and a depending flange around the edge of said plate.

6. A toy car, comprising a relatively thin metallic plate which is substantially racket-shaped, having a wide resilient seating portion at its rear end and a narrow portion extending forwardly from the seating portion to the forward end of the plate, leaving free play for the legs of the rider at the sides of the narrow portion throughout the length thereof, a support for the rear end of said plate, reinforcements for the narrow portion of said plate terminating in front of the seating portion and leaving a resilient seating portion between the ends of said reinforcements and said support, and a steering device at the forward end of said plate.

7. In a toy car, the combination with a running gear comprising wheels at the rear end of the car, and a steering device at the forward end of the car, of a racket-shaped metallic plate supported by the running gear and composed of a relatively resilient rear seating portion and a relatively non-resilient forward end, the non-resilient forward end being relatively narrow and permitting the legs of the rider to work freely at the sides thereof in propelling the car, and a protecting flange along the side edges of said plate extending from the forward end thereof throughout the length of the narrow forward end at the sides of which the legs of the child work in propelling the car.

DONALD V. DAVIS