April 25, 1933. E. S. PEAKE 1,905,649

WHEELED TOY

Filed Oct. 29, 1931 2 Sheets-Sheet 1

Fig. 1.

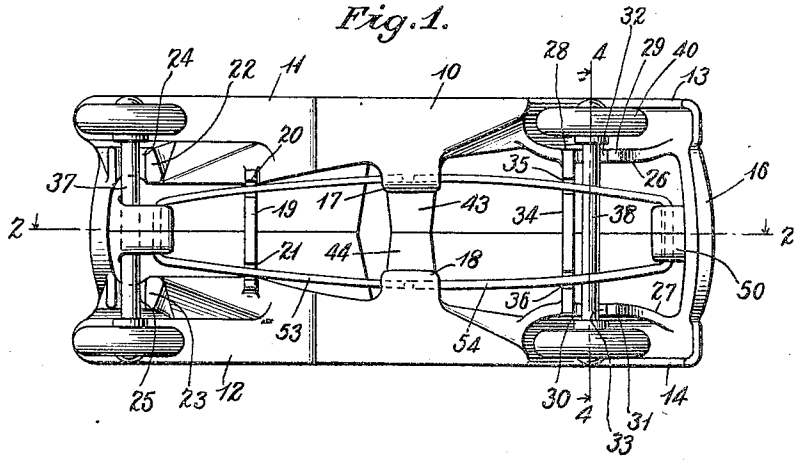


Fig. 2.

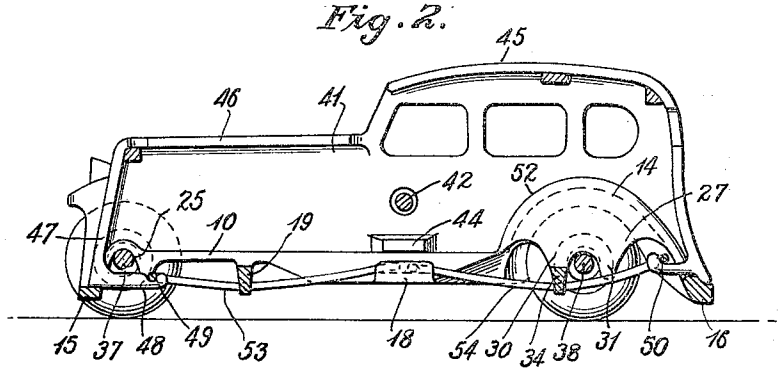


Fig. 3.

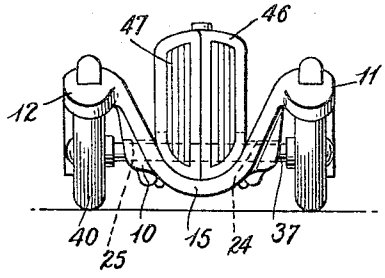
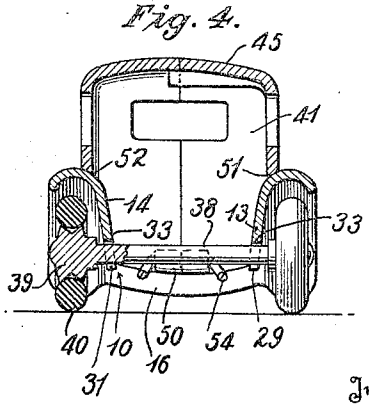


Fig. 4.



Inventor

Edward S. Peake

By Cushman Bryant Darby & Cushman

Attorneys

April 25, 1933. E. S. PEAKE 1,905,649

WHEELED TOY

Filed Oct. 29, 1931 2 Sheets-Sheet 2

Fig. 5.

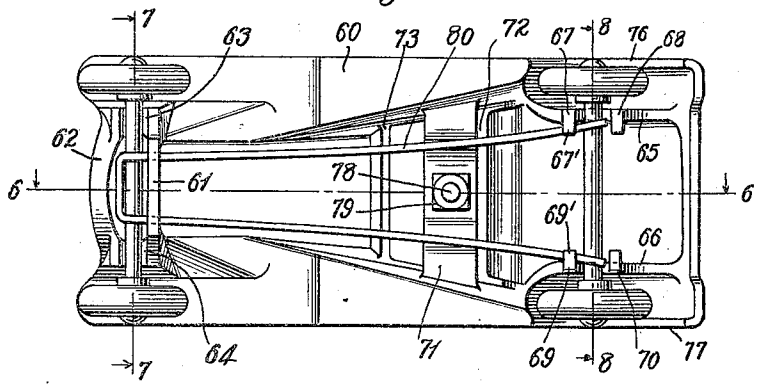


Fig. 6.

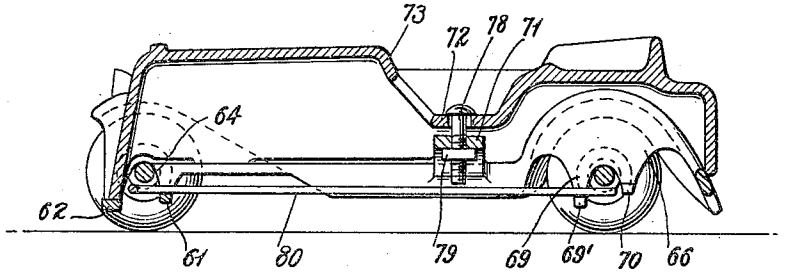


Fig. 7.

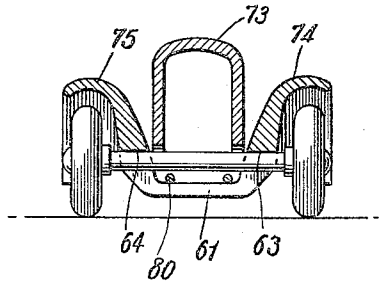
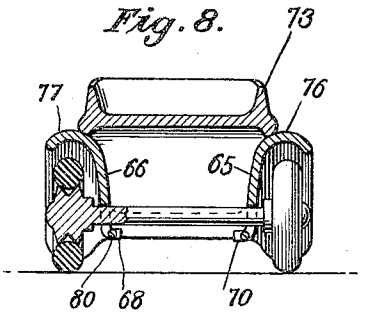


Fig. 8.



Inventor

Edward S. Peake

By Cushman, Darby & Cushman

Attorneys

Patented Apr. 25, 1933 1,905,649

UNITED STATES PATENT OFFICE

EDWARD S. PEAKE, OF WESTERVILLE, OHIO, ASSIGNOR TO THE KILGORE MFG. COMPANY, OF WESTERVILLE, OHIO, A CORPORATION OF OHIO

WHEELED TOY

Application filed October 29, 1931. Serial No. 571,918.

The present invention relates to wheeled toys and is particularly concerned with the design of such toys for ready assembly.

A principal object of the invention is the provision of means permitting rapid mounting and secure retention of wheel and axle units of novel design.

Other objects will be apparent upon consideration of the invention in connection with the illustrative embodiments thereof shown in the accompanying drawings and which will be hereinafter described and claimed.

In the drawings:

Figure 1 is a bottom plan view of a wheeled toy embodying the invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a front elevation of the toy of Figure 1.

Figure 4 is a section on line 4—4 of Figure 1.

Figure 5 is a bottom plan view of a wheeled toy embodying the invention in somewhat modified form.

Figure 6 is a section on line 6—6 of Figure 5.

Figure 7 is a section on line 7—7 of Figure 5, and

Figure 8 is a section on line 8—8 of Figure 5.

Referring to the drawings, and first to Figures 1 to 4, reference numeral 10 designates a chassis frame of substantially rectangular form and including front and rear fenders 11, 12, 13 and 14, the frame being preferably cast in one piece. The side members of the frame are connected at the front by a downwardly curved yoke portion 15, and at the rear by a yoke portion 16. Centrally, the side members of the frame have opposed inwardly projecting lug portions 17 and 18 and forwardly of the lug portions the side members are connected by a bolster 19 having downwardly open notches 21. Immediately to the rear of yoke portion 15, the side members are provided with downwardly projecting lugs 22 and 23, defining, with the yoke portion 15, downwardly open aligned recesses 24 and 25 for the reception of an axle.

Adjacent the yoke portion 16 and inwardly of the fenders 13 and 14, vertical web portions 26 and 27 of the frame present downwardly projecting pairs of lugs 28, 29 and 30, 31, the pairs of lugs defining aligned downwardly open recesses 32, 33 for the reception of an axle. The lower extremities of lugs 28 and 30 are connected by means of a bolster 34 provided with downwardly open notches 35 and 36.

The aligned downwardly open recesses, above described receive axles 37 and 38 of integrally cast wheel and axle units, a wheel being shown at 39, Figure 4. Wheel 39 is provided with a peripheral groove which receives a tire 40 of elastic material, preferably rubber.

Considerable economy is effected in the provision of the integral wheel and axle units, since the stringing of wheels on axles is avoided, it being merely necessary to drop the axles in the recesses provided therefor. The invention contemplates particular means for retaining the axles in the recesses.

A body, generally designated by the reference numeral 41 is made up of two parts as indicated particularly in Figure 4, the parts being connected by means of a rivet 42, in the well-known manner, the proper spaced relation of the body side walls being maintained by the abutting spacing elements 43 and 44 integral with the body portions.

The body comprises a body proper 45, a hood portion 46 and a front wall 47 in simulation of a radiator. The front wall 47 at its lower extremity has an integral rearwardly extending lug 48 provided adjacent the top of its free end with a transverse notch 49. Simularly, the body 45 adjacent the bottom of its rear wall is provided with the inward projection 50 up-turned at its free end. The body side walls are provided with recesses 51 and 52 in which the fenders 13 and 14 seat.

With axle 37 seated in recesses 24 and 35, projection 48 is hooked thereunder and the body pulled rearwardly and downwardly on

the chassis frame until fenders 13 and 14 seat in the recesses provided therefor.

Hereupon, the cross portion of a hairpin-shaped flat spring member 53 is engaged in groove 49, the legs engaged in notches 20 and 21 and the free ends engaged above the seats provided by lugs 17 and 18. The relation of the parts is such that the spring is placed under tension as indicated in Figure 2, and causes the lower edge of wall 47 to bear downwardly in contact with yoke 15 so that projection 48 is held clear of axle 37. A hairpin-shaped spring 54 has its cross portion engaged above projection 50, its legs in notches 35 and 36 and its free ends above lugs 17 and 18. The spring is thus placed under tension as indicated in Figure 2 and serves to hold the rear end of the body against yoke 16 and also to retain axle 38 in recesses 32 and 33.

The described toy is quickly assembled and the parts rigidly held together by means of springs 53 and 54.

Lateral displacement of the forward end of the body is prevented by the side walls of yoke member 15, Figure 3. Forward displacement of the body is prevented by fenders 13 and 14 which are engaged in the recesses 51 and 52 and the fenders also serve to prevent lateral displacement of the rear end of the body, since the fender crowns extend somewhat beyond the edges of the recesses.

Spring 53 serves to hold the front end of the body upon the chassis frame, while spring 54 serves to hold the rear end of the body on the frame and also to retain axle 38 in its bearing recesses.

According to Figures 5 to 8, the chassis frame 60 has a second yoke 61 spaced rearwardly from the forward yoke 62 and defining with the latter downwardly open recesses 63 and 64 for the reception of an axle. Rearwardly, the chassis frame has vertical webs 65 and 66 provided with downwardly extending pairs of lugs 67, 68 and 69, 70, the lower extremities of each lug being inwardly extending. The frame is also provided with a cross portion 71 which underlies a cross portion 72 of a body 73, the forward end of the body being positioned between the forward fenders 74 and 75 of the chassis frame and the rear portion of the body being positioned by means of the rear fenders 76 and 77 in the manner described with reference to the first embodiment. The cross members 71 and 72 are connected by a bolt and nut 78 and 79.

Wheel and axle units of the type above described are positioned in the downwardly open recesses 63 and 64 and the recesses defined between the pairs of lugs 67, 68, 69 and 70. Hereupon, a hairpin-shaped flat spring member 80 has its closed end passed beneath the forward axle and above yoke 61, the free ends of the spring member being engaged under projections 67′ and 69′ of lugs 69 and 67 to lie immediately below the rear axle. Forward movement of the spring member is limited by the yoke 62, while rearward movement is limited by lugs 68 and 70.

As compared to the embodiment first described, the toy of Figures 5 to 8 utilizes a single keeper member 80 and this member has the sole function of bridging the axle receiving recesses, the chassis frame and body being connected by means of bolt and nut 78, 79.

It will be understood that many modifications are possible without departure from the scope of the invention and accordingly I do not limit myself to structure except as in the following claims.

I claim:

1. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, a demountable body supported on the frame, and a member serving to hold the body on the frame and the axle in said recesses.

2. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, a demountable body supported on the frame, and a spring member engaging the frame and body to hold them together and passing under the axle to hold it in the recesses.

3. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, and a demountable body supported on the frame and having a portion underlying the axle to hold the latter in said recesses.

4. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, a demountable body supported on the frame and having a portion underlying the axle to hold the latter in said recesses, and a spring member engaging said portion to hold the body on the frame.

5. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, a demountable body supported on said frame, and a spring member extending under said axle and engaging on seats provided on the frame and body respectively.

6. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, a demountable body supported on said frame, a spring member extending under said axle and engaged on seats provided on the frame and body respectively, and means holding the spring member out of contact with the axle.

7. In a wheeled toy, a chassis frame having downwardly open recesses, an axle rotatably seated in said recesses, a demount-

able body supported on said frame, a spring member extending under said axle and engaged on seats provided on the frame and body respectively, and a bolster on the frame holding the spring member out of contact with the axle.

8. In a wheeled toy, a chassis frame, a demountable body supported on said frame, a spring having its ends engaged on seats provided on the frame and body respectively, and means engaging the spring intermediate its ends extending below said seats to retain the spring ends on said seat.

9. In a wheeled toy, a chassis frame, a demountable body supported on said frame, a flat spring having its ends engaged on seats provided on the frame and body respectively, and a bolster on the frame engaging the spring intermediate its ends and on its side opposite the side engaged on the seats.

10. In a wheeled toy, a chassis frame, a demountable body supported on said frame, and spring means interposed between seats on the frame and body at each end of the body, said spring means holding the body against the frame.

11. In a wheeled toy, a frame presenting downwardly projecting laterally spaced pairs of lugs, an axle rotatably engaged between the pairs of lugs, an axle keeper, and keeper engaging means including a bolster extending between the lower extremities of lugs of said pairs of lugs.

12. In a wheeled toy, a frame having a spring support, a body mounted thereon having spring supports spaced from one another, a spring means mounted on said supports and means associated with said frame serving to retain said spring means on said body and frame supports.

13. In a wheeled toy, a frame having a spring support, a body mounted thereon having spring supports spaced from one another, a spring means mounted on said supports and means associated with said frame serving to retain said spring means on said body and frame supports, and an axle carrying wheels mounted between said spring and frame and retained in operative position thereby.

14. In a wheeled toy, a body, a detachable frame, said body having a spring support and means intermediate said spring support and frame engaging a spring whereby said spring passes beneath said last mentioned means and rests upon said spring support and frame at its ends.

15. In a wheeled toy, a body having a spring support, a frame having laterally disposed spaced spring supports and an intermediate bridge on which a spring rests and a U-shaped spring, the closed end of which rests on the body support, the middle of which rests on said bridge, and the free ends of which rest on said spaced frame supports.

16. In a wheeled toy, a body, a detachable frame, said body having a spring support and said frame having spaced spring engaging means on different levels whereby said spring rests on top of the body support, rests beneath one of the frame supports and on top of the other frame support.

17. In a wheeled toy, the combination of a chassis frame, a detachable body and an interlocking metal spring means yieldingly holding said members to one another, said spring means being detachable from and independent of the frame and body.

18. In a wheeled toy, the combination of a chassis frame, a detachable body and an interlocking metal spring means yieldingly holding said members to one another, and loosely mounted axles on said frame retained in position by said frame and said interlocking metallic spring means, said spring means being detachable from and independent of the frame and body.

19. In a wheeled toy, a body, a chassis frame and running gear, and yielding means to hold said chassis frame and body to one another, said spring means being detachable from and independent of the frame and body.

In testimony whereof I affix my signature.

EDWARD S. PEAKE.