Oct. 3, 1933. E. S. PEAKE 1,929,257

WHEELED TOY

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FIG. 1.

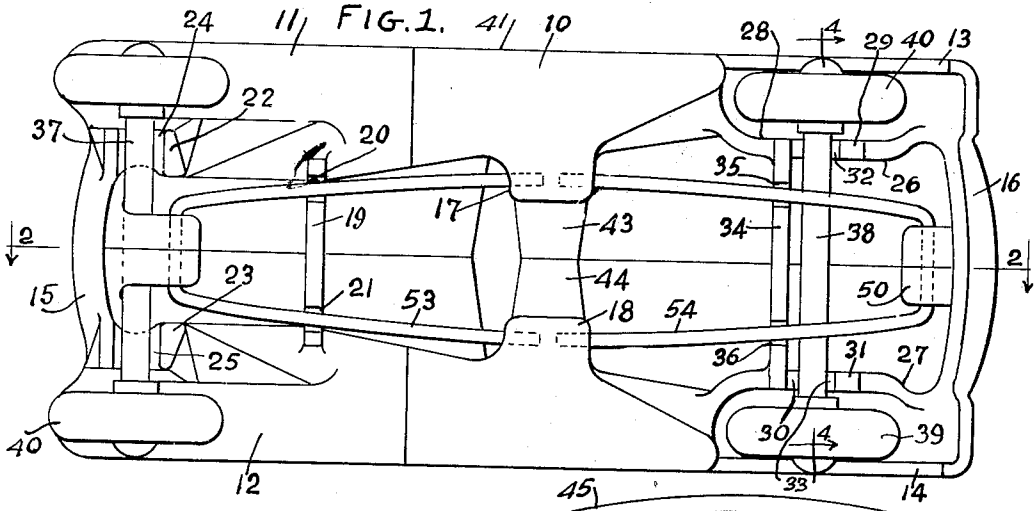


FIG. 2.

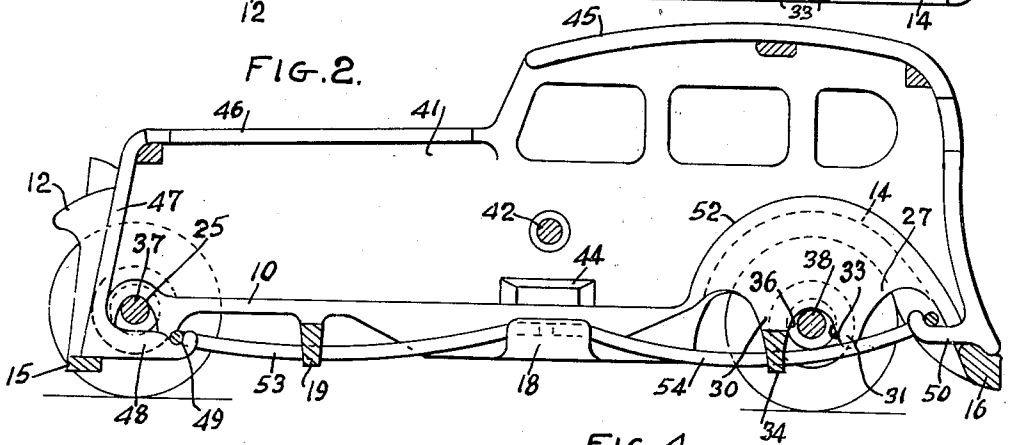


FIG. 3.

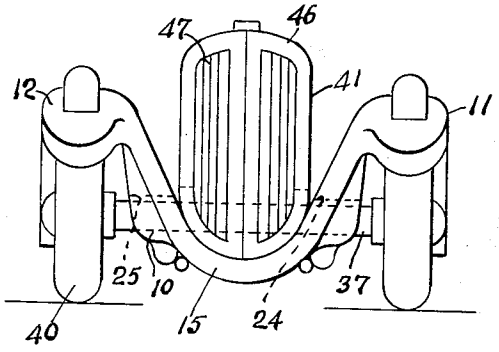
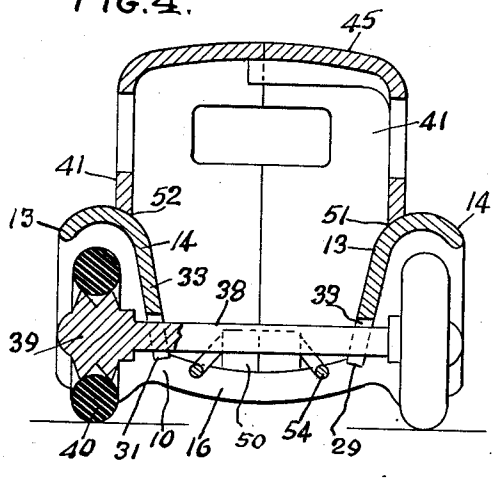


FIG. 4.



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FIG. 5.

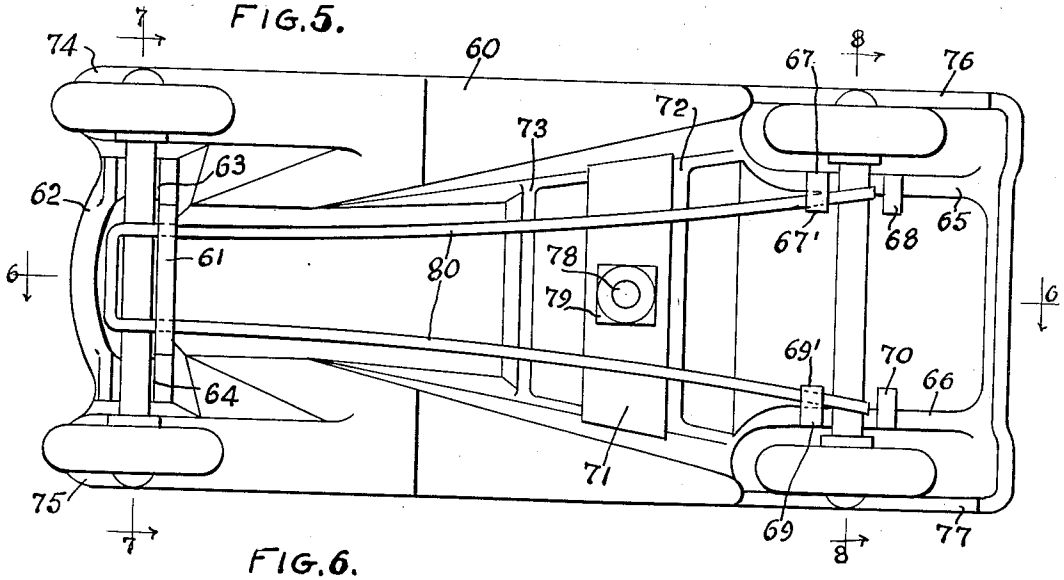


FIG. 6.

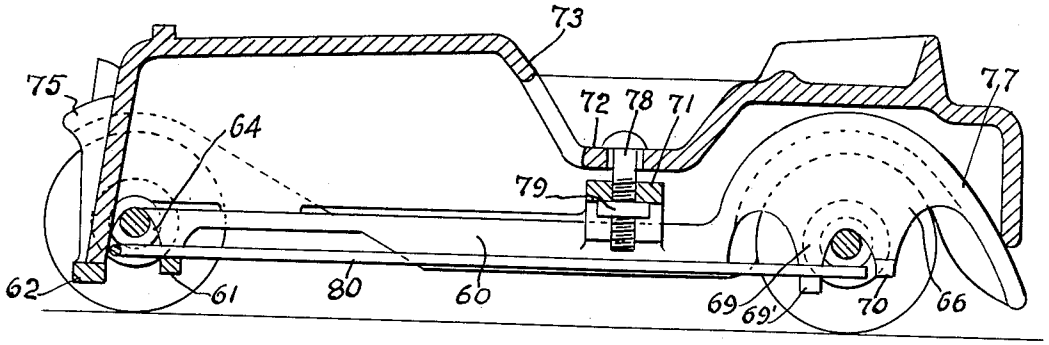


FIG. 7.

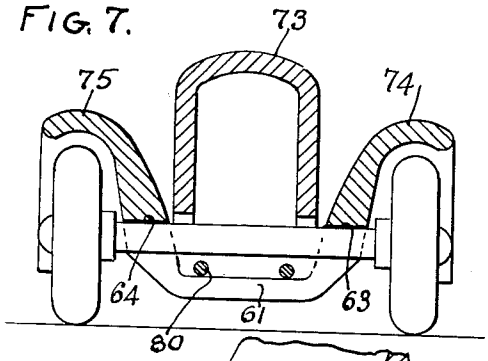


FIG. 8.

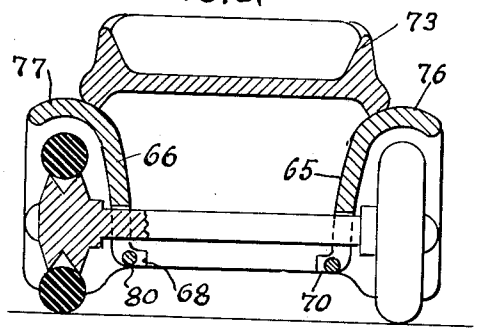
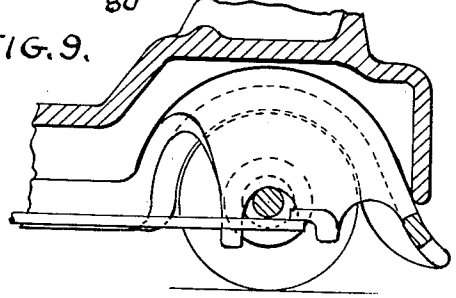


FIG. 9.



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UNITED STATES PATENT OFFICE

1,929,257

WHEELED TOY

Edward S. Peake, Westerville, Ohio, assignor to The Kilgore Manufacturing Company, Westerville, Ohio, a corporation of Ohio

Original application October 29, 1931, Serial No. 571,918. Divided and this application March 22, 1932. Serial No. 600,466

8 Claims. (Cl. 46—48)

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.

Figure 8 is a section on line 8—8 of Figure 5; and

Figure 9 is a modification of the rear end spring support.

This application is a division of my application Serial No. 571,918, filed October 29, 1931.

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. Similarly, 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 axles 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 70 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 including wheel fenders, and a demountable body supported on said frame and abutting the fenders for positioning the body on the frame and means attaching the center of the body and frame together independent of the running gear on the wheeled toy.

2. 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 an angular continuation at the lower extremity of one lug of each pair of lugs.

3. A chassis frame having axle receiving slots fore and aft thereof, a detachable body mounted on said frame, wheels and axles having their axles mounted in the slots in the chassis frame, yielding means for retaining said axles in said frame and means of retaining the body on said frame.

4. In a wheeled toy, a chassis frame, a demountable body mounted on said frame and forming therewith a complete vehicle with the exception of the axles and wheels, means on said frame for receiving and positioning the axles and wheels, axles and wheels so positioned, means interconnecting the body and frame to hold them together, and spring means adapted to retain said axles and wheels in position on the frame.

5. In a wheeled toy, a chassis frame comprising a frame and the fenders of a vehicle, a fenderless body having receiving portions for receiving said fenders on the frame for positioning the body thereon, axles and wheels carried in slots in said frame, and interlocking yielding means carried by projections on said frame only adapted to retain said axles and wheels in position.

6. In a wheeled toy, a chassis frame comprising a frame and the fenders of a vehicle, a fenderless body having receiving portions for receiving said fenders on the frame for positioning the body thereon, axles and wheels carried in slots in said frame, interlocking yielding means carried by projections on said frame only adapted to retain said axles and wheels in position and a bolt to retain the frame and body together.

7. In a toy body, a chassis frame having at one end a yoke and at the other end a pair of lugs, a body detachably mounted on the chassis, a pair of axles and wheels, and a hairpin shaped member engaging each axle and engaging at its closed end the yoke and at its open end the lugs for retaining the axles on the frame.

8. In a toy body, a chassis frame having integral fenders, a body supported on the frame and positioned by the fenders, means for holding the body and frame together, wheels for supporting the frame, and means independent of the first-named means for holding the wheels to the frame.

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