

Oct. 30, 1923.

1,472,164

A. C. GILBERT

TOY VEHICLE

Filed March 20, 1919

2 Sheets-Sheet 1

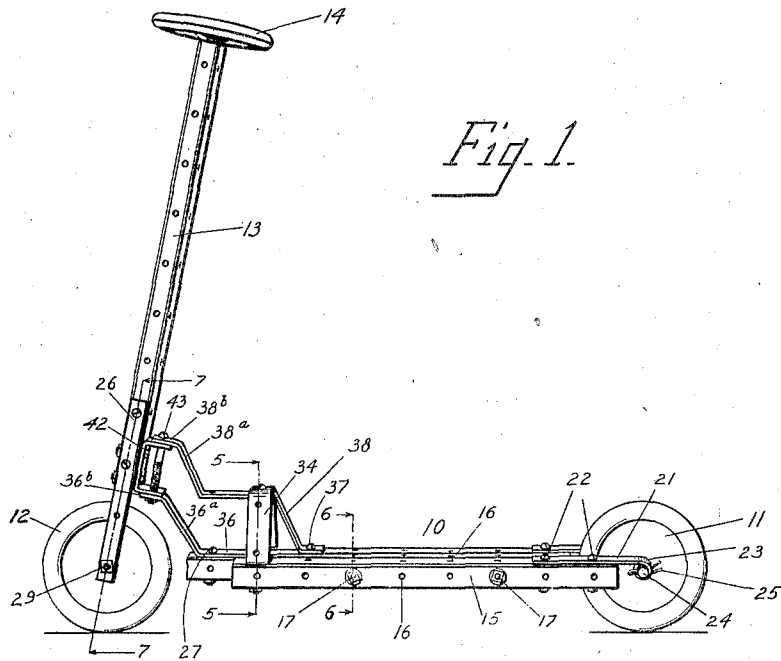


Fig. 1

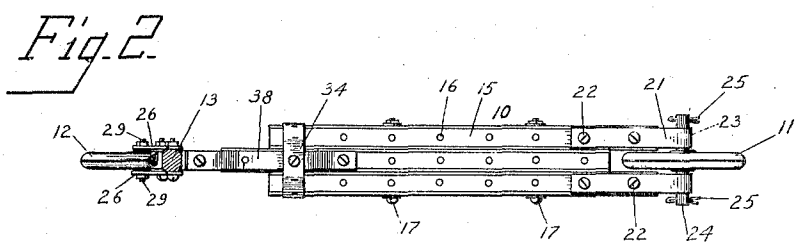


Fig. 2

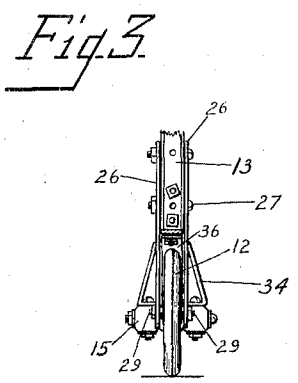


Fig. 3

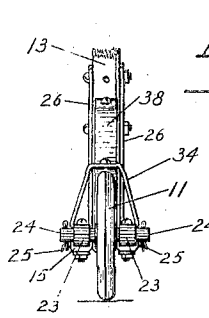


Fig. 4

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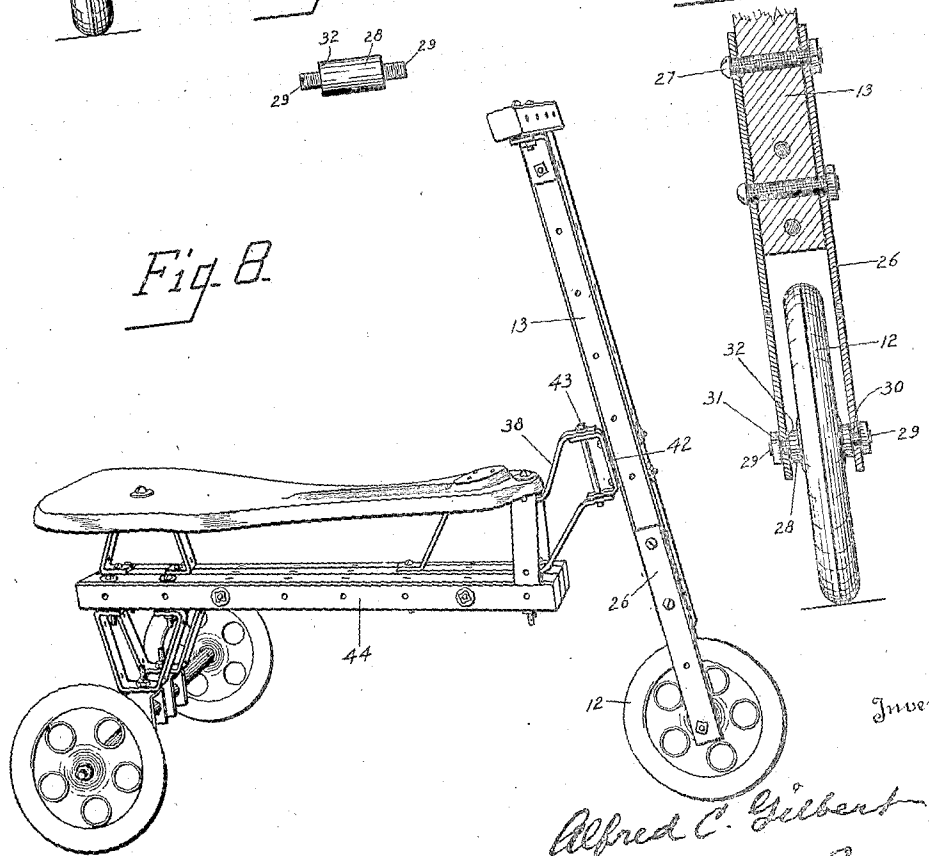
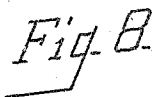
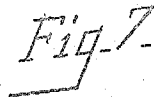
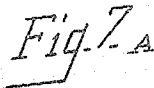
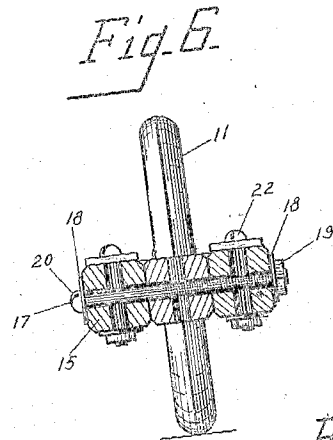
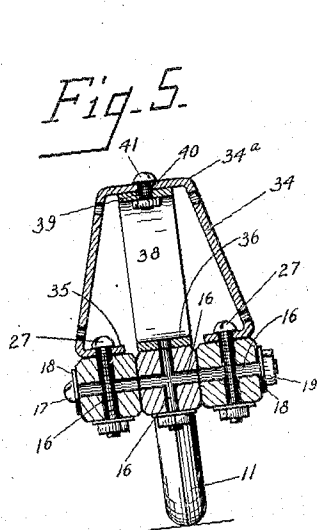
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

ALFRED C. GILBERT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE A. C. GILBERT COMPANY, OF NEW HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

TOY VEHICLE.

Application filed March 20, 1919. Serial No. 283,693.

To all whom it may concern:

Be it known that I, ALFRED C. GILBERT, a citizen of the United States, residing in New Haven, county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Toy Vehicles, of which the following is a full, clear, and exact description.

This invention relates to toy vehicles, and more particularly to knockdown toy vehicles of the general class referred to in my application, Serial No. 281,970 filed March 11, 1919. In that application there is described a so-called construction toy, wherein a set of parts is used for constructing various toy vehicles and playthings, in which the parts can be used in a great many different combinations. When one of the toy vehicles or the like has been built, it can thereafter be readily taken apart for building another structure more or less different.

The present invention relates particularly to construction toys like scooters, kiddie cars and the like, where there is a body for supporting the weight of the child, two or more supporting wheels, and suitable provisions for steering the toy vehicle.

One of the primary objects of the invention is to provide an improved toy of this general type.

Another object is to furnish a knockdown toy vehicle of this general class wherein the parts can be very readily assembled and taken apart by the boy or girl, and which when finished is attractive in appearance, strong and durable.

Another thing which I have in mind, is the provision of a wheeled toy with front and rear supporting wheels, and provisions for steering, wherein the parts can be adjusted or interchanged, or new parts substituted for old ones, to meet various conditions, in a very ready and convenient manner.

The invention is not limited in all its aspects to a wheeled toy, as certain features may be used in connection with toys having runners or the like, as sleds, for example.

To these and other ends, the invention

consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is a perspective view of what I may term a "scooter", constructed in accordance with the invention. This vehicle has a single rear wheel, a single front wheel, a body connecting the wheels, on which the child may stand, and provisions for steering by turning the front wheel.

Fig. 2 is a top plan view, partly in section, of the vehicle shown in Fig. 1.

Fig. 3 is a front end view of the lower part of the vehicle.

Fig. 4 is a rear end view of the lower part of the vehicle.

Fig. 5 is an enlarged section on line 5—5 of Fig. 1.

Fig. 6 is an enlarged section on line 6—6 of Fig. 1.

Fig. 7 is an enlarged section on line 7—7 of Fig. 1.

Fig. 7^A is a detail of the axle member, shown in Fig. 7, and

Fig. 8 is a perspective view of a modified form of the vehicle.

Referring particularly to Figs. 1 and 2, it will be observed that in the particular example shown, the vehicle comprises a body 10, a rear wheel 11, and a front wheel 12. The body 10 is constructed and arranged so that the child can stand on the same, and the front wheel is mounted for steering by means of an upstanding post 13. The post 13 is inclined slightly in a rearward direction, and it can be turned about a longitudinal axis for steering the vehicle. A suitable steering element, such as a wheel 14, fixed to the upper end of the post, permits the steering wheel 12 to be readily turned to the right or left. The wheel 12 is supported from the lower end of the steering post, and the body 10 is supported from the lower end of said post by a swivel connection, permitting said post to be turned to a considerable degree, either to the right or left, with respect to the body.

The body 10 is of a composite character,

as it is formed of a plurality of detachable longitudinally extending elongated elements 15. In the example shown, the body is formed by detachably clamping together three of these elements 15. They are of the kind described in my application, previously referred to, each preferably consisting of a wooden stick or piece of substantially square cross-section, having two longitudinal series of equally spaced holes or perforations 16. The holes of one series extend at right angles to the holes of the other series, and corresponding holes intersect each other, as shown more particularly in Figs. 5 and 6.

In the form shown, the three pieces or sticks, of which the body is composed, are of the same length, but the middle piece is extended forward to a certain distance beyond the front ends of the outside pieces, and this creates a space between the rear ends of the outside pieces, in which the rear wheel 11 is received. The body pieces are detachably bolted together by bolts 17, extending through horizontal registering holes or perforations, as shown in Fig. 6. The bolts 17 are provided with washers 18 and nuts 19. The heads of the bolts are provided with slots 20, so that a screw driver can be used for ready assemblage and detachment of the parts. In the case under discussion, two bolts 17 are used for clamping the three sticks together in the relation specified.

The wheel 11 is detachably supported from the rear end of the body by means substantially similar to those described in my previous application, above mentioned, for which purpose detachable bearing straps for the wheel axle are applied to the rear ends of the outside members 15. The straps are shown at 21, and it will be observed that they are detachably applied to the upper surfaces of the respective outside members 15 by short bolts 22, which pass through registering vertical perforations in the wooden members and straps. At the rear ends of the straps are loops 23, in which fit an axle 24, on which the wheel 11 is rotatably mounted. The wheel is mounted between the straps, in the same manner described in my above mentioned application, the axle being held against longitudinal displacement by cotter pins 25, passed through the respective ends of the same, as shown more particularly in Fig. 2.

The three elongated members 15, when clamped together in the manner specified, form a rigid body having an upper surface of such extent as to accommodate the feet of the child. The steering post 13 is similar to the wooden pieces 15, being perforated in the same way. The wheel 12 is mounted on the lower end of the steering post between detachable straps 26, similar to the straps

described in my application previously referred to. These straps are secured to opposite side faces of the lower end portion of the steering post by short bolts 27, similar to the bolts 22, passing through certain of the registering horizontal perforations in the straps and steering post. In the form shown, two of the bolts 27 are employed and the straps extend downward beyond the lower end of the steering post through-out substantially half their length, so as to provide bearing cheeks between which the wheel 12 is mounted. The wheel 12 rotates on a short axle 28, which can be readily interposed between the lower ends of the straps, as shown in Fig. 8. The axle has reduced ends 29, which fit fairly snugly within the perforations 30, in the lower ends of the straps, and the assemblage can be completed by nuts 31, engaging threads on the outwardly projecting shanks or studs on the ends of the axle. By screwing up the nuts 31, the lower end portions of the straps are tightly clamped against shoulders 32 on the axle, and the axle is rigidly held in place with the wheel free to rotate on the same.

The swivel connection between the body and steering post may be constructed as follows:

Arranged transversely on the upper surface of the body at the front end portion thereof is a V-shaped strap or bracket member 34 similar to that described in my application previously referred to. The open end of the V is lowermost and its inturned perforated terminals 35 are detachably secured to the outside body pieces 15 by bolts 27, similar to those previously described. In the example shown these bolts pass through perforations in the inturned terminals of the strap and through the vertical perforations or holes 16 at the front ends of the outside body members. Between the terminals of the V-shaped strap or bracket 34, an angle strap 36 is applied to the forward end of the middle body member at the upper surface thereof. The strap 36 extends forwardly and rearwardly of the bracket 34, and is detachably secured to the middle body member by another bolt 27, similar to those previously described, passing through the vertical perforation adjacent the front end of the middle body member. The rear end of the strap 36 is similarly attached to the upper surface of the middle body member, back of the bracket 34, by means of a bolt 37. Another angular bracket member 38 is applied beneath the upper intermediate portion 34^a of the bracket 34. It has a perforation 39 registering with the perforation 40 in the upper part of member 34, and a short bolt 41 passes through the registering perforations and clamps the intermediate

part of the strap 38 tightly to the under surface of the upper part of member 34. Extending rearwardly and downwardly from the upper part of bracket 34, the strap 38 has a portion detachably secured to the middle body member on top of the rear end of strap 36 by means of the bolt 37, previously mentioned.

The straps 36, 38 have upwardly bent angular portions 36^a, 38^a, respectively, with parallel forward ends 36^b, 38^b. Between these forward ends is interposed a rearwardly projecting U-shaped clip 42, applied by short bolts to the rear face of the steering post near the lower end of the latter. The rearwardly projecting legs of the clip 42 are provided with perforations, which register with perforations in the front ends of the portions 36^b, 38^b of the straps 36, 38, and a swivel bolt 43 completes the assemblage.

The clip 42 is rigidly fastened to the rear face of the post, and the post is, therefore, mounted to turn on the axis of the swivel bolt 43, which clamps the rearwardly projecting legs of the U-shaped clip between the forward extremities of the straps 36, 38. The upper strap 38 is securely mounted on the body by providing the V-shaped bracket 34, which serves as a brace member.

In Fig. 8, I have shown my improvements applied to a toy vehicle having a body portion on which the child can sit. In this case, however, the swivel connection between the body and the steering post is substantially the same as that previously described, and the mounting of the wheel on the lower end of the steering post is the same. The body 44 is in this case also formed by placing three of the elongated perforated members side by side and clamping them together. I do not claim specifically herein, however, any structure of the toy vehicle shown in Fig. 8 which is not common to the toy vehicle, previously described herein, as other features are claimed in my divisional application, Ser. No. 306,773, filed June 26, 1919.

It will be manifest that the toy vehicle structure herein described may be made very substantial and sturdy by providing parts of the requisite strength. The parts can be readily assembled by a boy or girl and the process of assembling and disassembling is interesting and instructive. A great many changes are possible according to the desires of the builder while still using the same parts or other parts provided in the toy construction set. In the particular toys shown, the different pieces of the body are adjustable and interchangeable. The wheels are removable and interchangeable, and many variations may be made by the child in assembling the structure.

It will be manifest that I do not limit myself to a toy having all the parts arranged

as herein described, as various features of my invention can be used in different combinations, and it will be apparent also that changes may be made in the design and construction of the different parts without departing from the scope of my inventive idea, as defined in the claims.

I do not claim broadly herein a construction toy member comprising an elongated wooden piece of substantially square cross-section having longitudinally extending series of perforations, said perforations intersecting, or other features claimed in my application, Serial No. 281,970 above referred to.

What I claim is:

1. A wheel toy such as described comprising a plurality of elongated elements secured together in parallel relation to form a body, looped straps secured to the rear ends of certain of the body members to project rearwardly therefrom, a wheel structure carried by said straps with the wheel thereof extending between the body members, and a wheeled steering member pivotally connected to the forward end of the body.

2. A wheel toy having a body composed of a plurality of elongated elements secured together, the rear ends of certain of said elements being spaced apart, looped straps secured to the spaced rear end of said elements and a wheeled structure carried by said straps with the wheel thereof disposed between the spaced ends of the body elements.

3. A wheel toy such as described comprising a body made up of elongated elements detachably secured together, a wheel supporting the rear end of the body, a pair of strap members connected to the body provided with spaced ends projecting forwardly therefrom, a wheeled steering member swivelly connected to the spaced ends of the straps, and a bracket connected to one of the straps and to the body members.

4. In a toy such as described, a plurality of elongated perforated body members, means for detachably clamping them together, a perforated steering post similar to the body members and interchangeable therewith, means providing a swivel connection between the steering post and the body, a supporting wheel on the rear end of the body, and a steering wheel on the lower end of the steering post.

5. In a toy such as described, a body having separable longitudinally extending elements, means for supporting the body at the rear, a steering post comprising an element interchangeable with the body elements, a swivel connection between the lower end portion of the steering post and the front end of the body, and a supporting wheel on the lower end of the steering post.

6. In a wheeled construction toy, outside

elongated body members, a similar elongated
body member interposed and secured be-
tween the outside body members, said inter-
posed body member being offset forwardly
5 relatively to said outside members, a wheel
supported from the rear ends of the outside
members, a steering post, a wheel on the

lower end of the steering post, and a swivel
connection between the lower end portion
of the steering post and the front end por- 10
tion of the interposed body member.

In witness whereof, I have hereunto set
my hand on the 15th day of March, 1919.

ALFRED C. GILBERT.