

Mar. 3, 1925.

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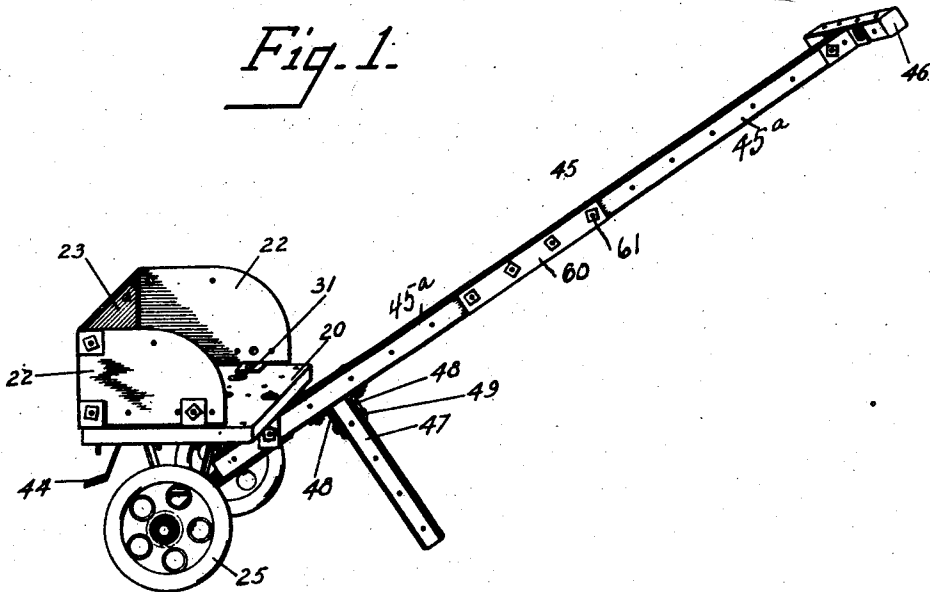
A. C. GILBERT

TOY VEHICLE

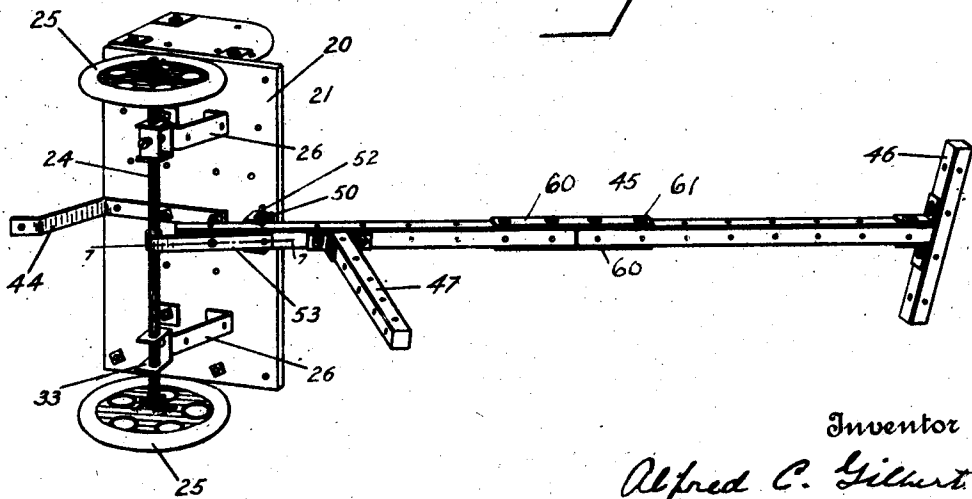
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*Fig. 1.*



*Fig. 2.*



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Fig. 3.

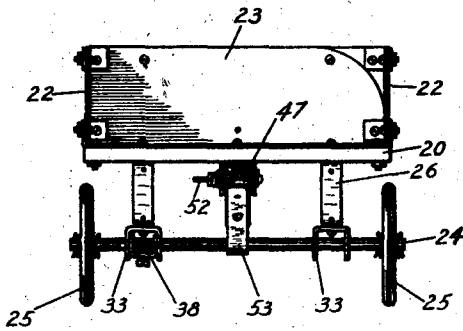


Fig. 4.

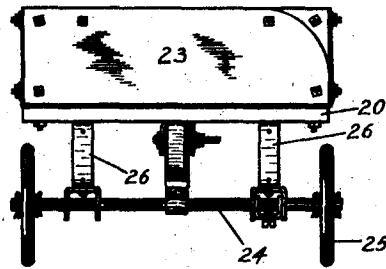


Fig. 5.

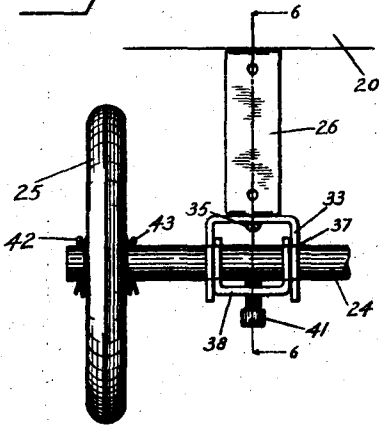


Fig. 6.

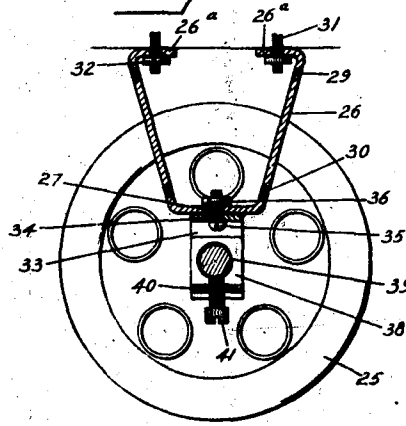
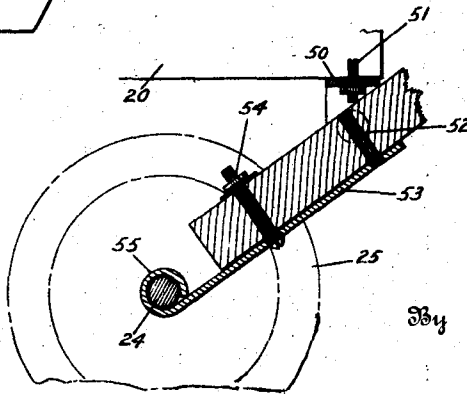


Fig. 7.



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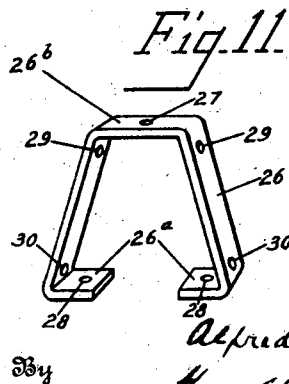
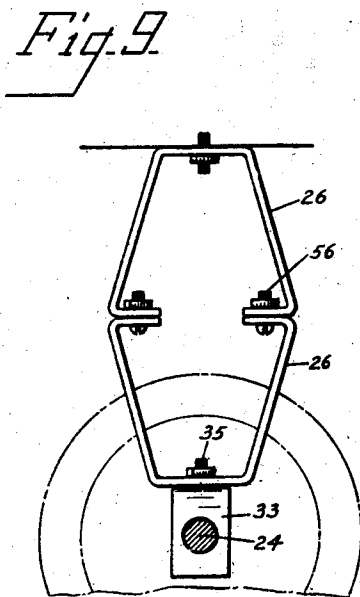
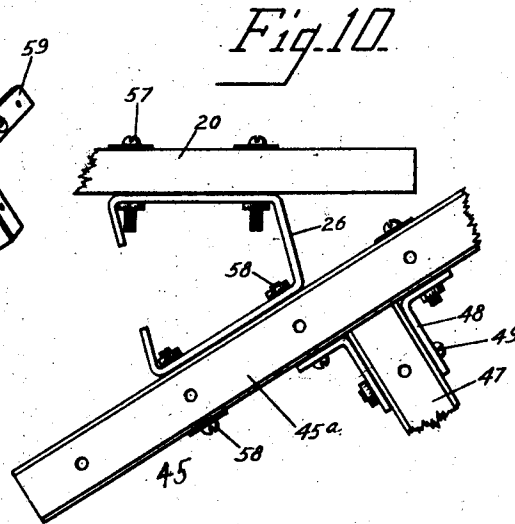
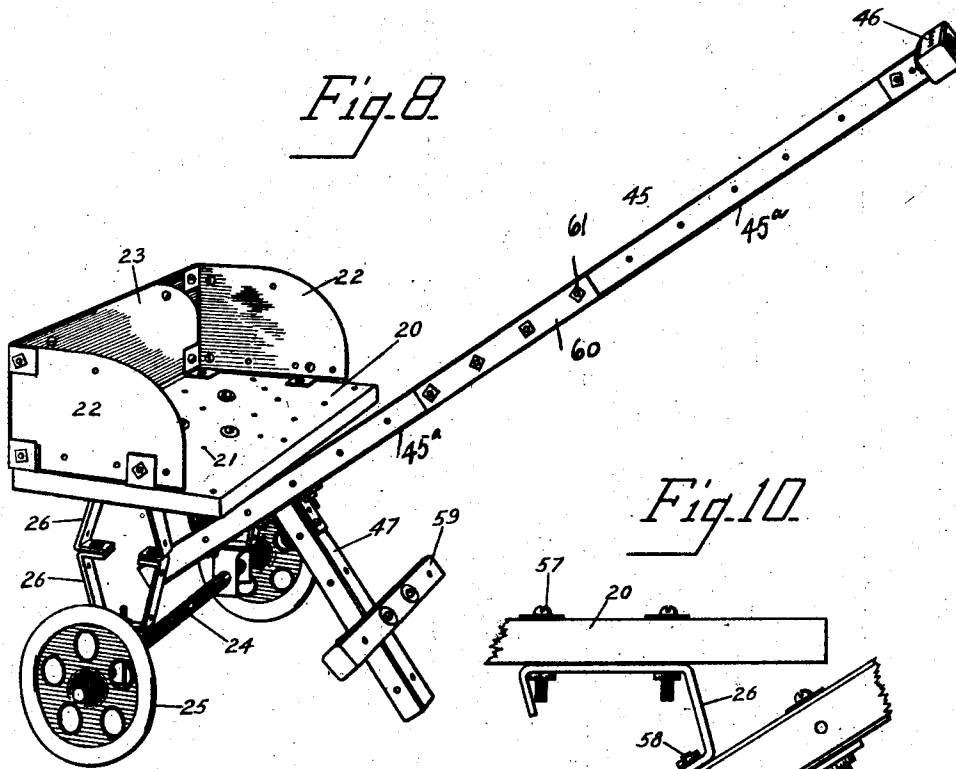
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Filed April 26, 1919

3 Sheets-Sheet 3



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# UNITED STATES PATENT OFFICE.

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## TOY VEHICLE.

Application filed April 26, 1919. Serial No. 292,877.

*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 toys, and more particularly to toys of that class termed construction toys, where a set of different parts (a plurality of some of which are furnished) is used for building up various structures that can thereafter be readily taken apart for building other structures.

In my application Serial No. 281,970, filed March 11, 1919, I have described and broadly claimed a toy of this general character with which vehicles of various types adapted to support or carry children can be readily built up or fabricated by the children themselves. The present application is in part a division of that application, but relates also to features of construction not fully described therein.

One of the objects of the present invention is to furnish improvements which are of special advantage in a knock-down wheeled toy. Certain features of the invention are not necessarily restricted to use in wheeled toys, however, because they are applicable with equal advantage to structures having runners, such as sleds.

More specifically, my invention aims to provide a novel and satisfactory running gear for toy vehicles of that type wherein an axle is employed for carrying wheels or runners. In accordance with my invention, the axle can be very readily and securely attached to a board or the like constituting a vehicle body, and the wheels or the like may be readily applied to the axle. The structure is strong and durable, but it can be easily taken apart when it is desired to use the parts in another structure.

Another object of my invention is to furnish a knockdown child's cart of simple construction.

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 a child's cart embodying my improvements.

Fig. 2 is another perspective view showing the cart turned up on one side to disclose the axle mounting.

Fig. 3 is a front end view of the cart with the tongue broken away.

Fig. 4 is a rear end view with the upper portion of the tongue omitted.

Fig. 5 is an enlarged detail elevation of one end portion of the axle and its mounting.

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

Fig. 7 is a detail section showing one method of attaching the tongue to the cart.

Fig. 8 is a perspective view of a child's cart of somewhat modified construction.

Fig. 9 shows the axle mounting of the cart shown in Fig. 8.

Fig. 10 shows the tongue connection of the cart shown in Fig. 8; and

Fig. 11 is a detail perspective view of one of the axle supporting brackets.

In constructing the cart herein illustrated, a wooden board 20 is used for the body. It is the same as the body board described in my application, Serial No. 281,970, having a plurality of series of perforations 21, which adapt it for various uses. Metal side plates 22 and a metal rear plate 23, composed of two overlapping parts, are applied to the upper surface of the board in substantially the same manner described in my above mentioned previous application. The side plates 22 are comparatively short, as they extend along the short sides of the board. The two plates composing the rear plate-structure 23 are longer and correspond to those shown on the wheelbarrow in my above mentioned prior application. As certain corners of the same are cut away, it is necessary to overlap them in a certain relation to obtain a true rectangle suitable for connection to the side plates 22, as will be understood.

Supported from the lower face of the body 20 is an axle 24 adapted to carry 100

wheels or runners. In the present instance, wheels 25 are mounted to rotate upon the respective end portions of the axle. The axle has a detachable mounting on the vehicle body including a pair of spaced metal straps or brackets 26, one of which is shown in detail in Fig. 11. These brackets are of approximately V-shape, having inturned free ends 26<sup>a</sup>. The intermediate part of the bracket is somewhat flattened as shown at 26<sup>b</sup>, and is provided with a central perforation 27. The inturned ends or lugs 26<sup>a</sup> are each provided with a perforation 28, and the legs of the bracket are provided with perforations 29, 30, as shown in Fig. 11. The brackets 26 are set transversely to the body, as shown in Fig. 2, with the upper surfaces of the lugs 26<sup>a</sup> in contact with the lower surface of the body and the perforations 28 registering with certain of the perforations 21. It will be observed from Fig. 2 that the body is provided with two longitudinal series of perforations arranged at opposite sides respectively of a longitudinal median line, and the upper ends of the brackets register with certain of these perforations. Bolts 31 passing through the upper ends of the brackets and through the body secure the parts together. The bolts have nuts 32. By providing the body with the two longitudinal series of perforations above mentioned, the spacing of the brackets 26 may be changed within certain limits. In other words, if it is desirable to do so, the brackets can be brought more closely together than in the construction shown in Figs. 2, 3 and 4.

Applied to the lower portions of the brackets are small U-shaped clips 33. Each of these clips has a perforation 34 in its intermediate portion adapted to register with the perforation 27 of the bracket; and a short bolt 35, provided with a nut 36 is adapted to engage the registering perforations for securing the clip rigidly but detachably to the bracket, as shown more particularly in Fig. 6. The legs of the U-shaped clip extend downwardly, the clip being set transversely with respect to the bracket, and said legs are provided with holes 37 through which the axle 24 passes. The legs of the clip act as spaced supporting members for the axle, which is received therein. In order to prevent longitudinal displacement of the axle relatively to its mounting, a suitable locking device is employed. In the form shown, the locking device comprises a U-shaped locking clip 38, similar to the clip 33, but smaller, so that it will fit fairly snugly within the clip 33, as shown in Fig. 5. The legs of the locking clip have holes 39 fitting over the axle and the intermediate portion of the locking clip is provided with a screw threaded socket 40 engaged by a clamping screw 41.

This screw clamps the locking clip tightly on the axle, as will be understood, and owing to the fact that the legs of the locking clip lie within the supporting clip and in contact with the inner faces of the supporting clip legs, it will be impossible for the axle to shift lengthwise to any appreciable extent in the bearing holes of the supporting clip 33.

Each wheel 25 is mounted to rotate on one of the projecting ends of the axle. In order to hold the wheel detachably in place, suitable detachable fasteners are employed. In the case illustrated, the wheel is mounted between cotter pins 42, 43, passing through transverse holes in the end portion of the axle.

A strap 44 may be detachably applied to the under surface of the body at the rear thereof by bolts engaging certain perforations of the strap and certain perforations of the body. The function of this strap is to engage the ground so as to prevent the cart from tipping backward to too great an extent.

The tongue employed for pulling the cart is shown at 45. This tongue is built up of sections, and has a detachable handle-bar 46 secured thereto. A perforated wooden stick 47 similar to the handle-bar 46 is detachably secured to the tongue near the body 20 by angles 48 and bolts 49 in substantially the same manner in which the handle-bar is applied to the tongue body. The stick 47 extends downward to engage the ground and hold the tongue or handle of the cart in an upwardly inclined position, as shown in Fig. 1.

In order to secure the tongue to the cart, a clip 50, similar to the clip 38, is detachably secured to the lower face of the body adjacent the front edge thereof by a bolt 51, as shown more particularly in Fig. 7. The rear end portion of the tongue extends between the legs of the clip 50 and is secured thereto in a detachable manner by a bolt 52 engaging one of the perforations in the tongue. A metal strap 53 is also applied to the rear end portion of the tongue by means of a bolt 54 passing through a perforation in the strap and one of the rearmost perforations of the tongue. The strap 53 extends beyond the rear end of the tongue and is provided at its rearwardly projecting end with a loop 55 embracing the intermediate portion of the axle 24. It will be understood that by this construction, wherein the tongue is secured to the body and also to the axle, said tongue is held in a comparatively rigid relation to the cart proper at the desired angle.

In the cart shown in Fig. 8, double brackets are used for supporting the body from the axle so that the body will be higher from the ground. The double

brackets are each constituted by two of the brackets 26, detachably clamped together by short bolts 56. The lugs 26<sup>a</sup> of one member 26 are placed in contact with the lugs of the other member, and the bolts 56 are passed through the registering perforations of the lugs.

In the form shown in Fig. 8, a modified tongue connection is also employed, in which a bracket 26, similar to those previously described, is utilized. One leg of the bracket is detachably secured to the body, as shown in Fig. 10, by bolts 57, and the other leg is detachably secured to the rear end of the tongue by bolts 58. In making this connection, the perforations 29, 30 of the bracket are utilized. The spacing of these perforations relatively to each other is such that they register with perforations of the body and the tongue.

In the vehicle shown in Fig. 8, the downwardly extending post or stick 47, which serves to support the vehicle, has detachably secured thereto a transverse piece or stick 59 similar to said post and to the handle-bar 46. The piece 59 serves as a footrest for the child sitting on the vehicle body.

The tongue is formed of sections 45<sup>a</sup> arranged in end to end abutting relation. Each of these sections consists of a wooden piece or stick or approximately square cross-section having two longitudinal series of perforations that are spaced apart at equal distances substantially throughout the length of the section. The holes of the respective series are arranged at right angles to each other, with corresponding holes intersecting. The two sections are interconnected by a butt joint which includes perforated metal straps 60, applicable to opposite faces of the sections. The straps 60 have at least four holes or perforations extending in a longitudinal series and having the same spacing as the holes in the sections. The straps are so placed that the two upper holes of both straps register with two lowermost holes of the upper tongue section, while the lower holes of the straps register with two uppermost holes of the lower section. Fastening bolts 61 are then passed through the registering holes, securing the parts detachably together. The bolts 61 are of the kind previously described, having nuts threaded thereon. By the construction described, the tongue sections can be very readily assembled so as to obtain a tongue of the required length, and in assembling, no special care need be exercised to bring the sections together in any special relation, as either end of one section may be connected to either end of the other section. Furthermore, the fastening bolts 61 may pass through holes of either of the two longitudinal series with which each section is provided. The handle bar is detachably connected to the upper or

outer section of the tongue in the same manner in which the stick or post 47 is secured to the lower tongue section, angles and bolts similar to the angles 48 and bolts 49 being employed.

It will be apparent that by my invention I provide a very simple vehicle construction of the knockdown type for children. The parts can be very readily assembled and disassembled. A toy of this kind is very interesting to a child, because the parts can be assembled in various relations, embodying different features of design.

Various changes may be made in the details of the construction herein described without departing from the scope of my invention, as defined in the claims.

I do not claim broadly herein a member having a plurality of perforations, a perforated strap member, means for detachably securing said strap member to said first member in various positions, an axle, means for securing said axle to said strap member, a wheel adapted to be mounted on said axle, and means for securing the wheel on the axle, or other features claimed in my application Serial No. 281,970; nor do I claim herein the combination, in a toy such as described, of a plurality of elongated members of substantially square cross-section, each having a longitudinal row of holes, and means for interconnecting said members detachably in various relations with the end face of one member abutting another member, or other features claimed in my application Serial No. 290,312, filed April 15, 1919.

What I claim is:

1. A toy vehicle comprising a body member, ground engaging devices including an axle, a tongue member, means including a plurality of substantially identical brackets secured together in inverted relation for securing the axle to the body member, and means including a bracket substantially identical with the first named brackets to secure the tongue member to the remainder of the toy.

2. A fabricated toy comprising a body member, brackets detachably secured to the under face of the same, an axle, means for detachably securing said axle to said brackets so that it is held against longitudinal and rotary movement, said means including a pair of identical V shaped brackets secured together in inverted relation, wheels rotatably mounted on the respective end portions of the axle, and detachable means for preventing displacement of the wheels.

3. A fabricated toy having a flat body member, and a wheel structure including an axle, and means for securing the axle to the body member including a V shaped bracket having its apex connected to the axle, a second V shaped bracket having its apex connected to the body member and means for

securing the free ends of the brackets together.

4. A toy vehicle comprising a body member and a wheel structure secured thereto, a tongue member connected to said body member and having applied at the free end thereof a transverse handle bar consisting of an

elongated element and a substantially identical element applied transversely to the tongue adjacent the other end thereof to support it in an upwardly inclined position. 10

In witness whereof, I have hereunto set my hand on the 24th day of April, 1919.

ALFRED C. GILBERT.