Jan. 22, 1924. 1,481,704

A. C. GILBERT

TOY VEHICLE

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Fig. 1.

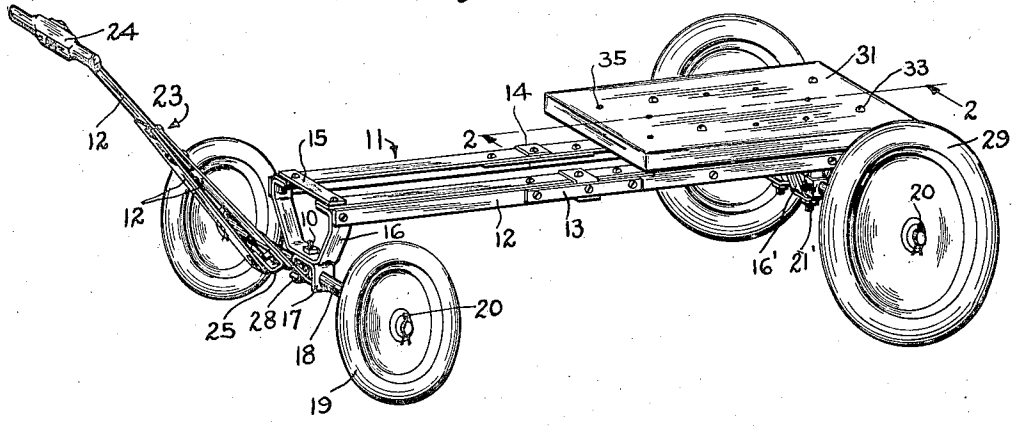


Fig. 2.

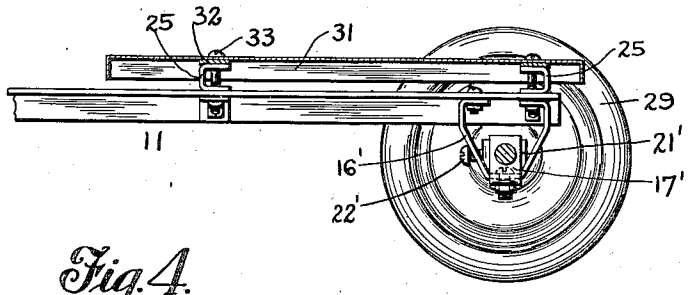


Fig. 4.

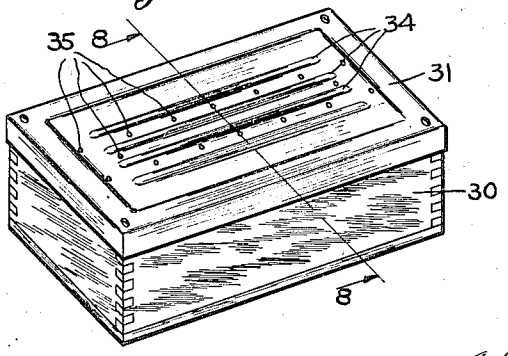
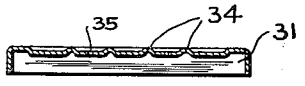


Fig. 8.



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Fig. 3.

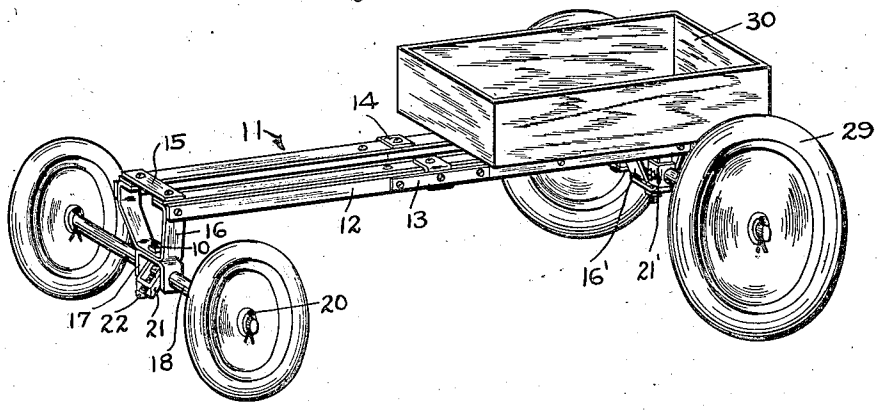


Fig. 5.

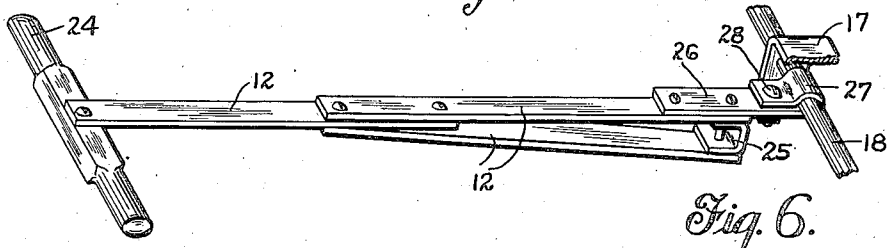


Fig. 6.

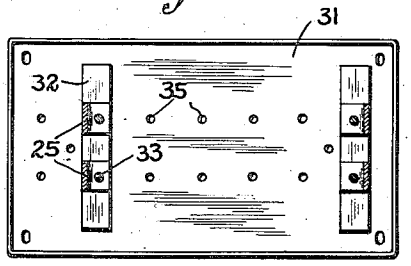
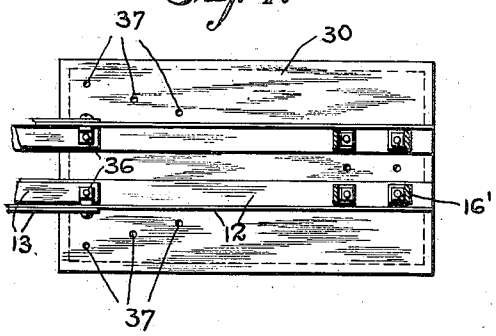


Fig. 7.



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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.

TOY VEHICLE.

Application filed December 16, 1920. Serial No. 431,202.

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, and 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 the type of such toys which may be built up or fabricated from sets of standard elements or parts. In the manufacture of toys of this nature, a number of standard parts are provided and so formed that they may be put together in various combinations to form many different toys. The parts should be conveniently stored or packed in a suitable box for handling or shipping purposes but in the past it has been difficult to provide such toy parts as were necessary to build some toys, such as wagons and the like, requiring a box body, as this body could not be conveniently packed in a box suitable for the other parts of the toy.

One object of this invention is to provide a novel construction toy of the character described.

A further object of the invention is to provide a set of standard parts which may be assembled to form a plurality of toys, including a wagon having a box body, and are so arranged that the body may be used as the shipping or storing box in which the parts may be packed.

Another object of the invention is to provide construction member of relatively short length, which may be spliced or joined together to form toy parts of relatively great length. These elements can then be packed or stored in a box of convenient size and yet can be assembled to form relatively long vehicle parts, such as a wagon frame or tongue.

A still further object of the invention is to provide new and improved standard metal construction units, which can be easily assembled to form a strong and substantial toy and yet may easily be detached and reassembled to form other toys.

Still another object of this invention is to provide a new and improved tongue member, and to connect this member to the axle in such a manner that it assists in holding the axle and wagon frame in operative relation.

To these and other ends, the invention consists of 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 toy vehicle embodying my invention;

Fig. 2 is a sectional view on line 2—2 of Fig. 1;

Fig. 3 is a perspective view similar to Fig. 1, but showing the vehicle provided with a box body;

Fig. 4 is a perspective view of the box in which the toy constructions are packed for shipping and handling, the cover being applied thereto;

Fig. 5 is a detail perspective view of the handle or tongue member;

Fig. 6 is a view of the under side of the body or seat member, shown in Fig. 1;

Fig. 7 is a similar view of the box body; and

Fig. 8 is a sectional view of the box cover on line 8—8 of Fig. 4.

The toy vehicle to which I have shown my improvements applied consists of an elongated frame or body portion, which is made up of two relatively long frame members 11. These frame members are of angle cross-section and are in turn formed of the metal strips 12, two of which are spliced together in abutting relation in the formation of one of the frame members 11. The strips 12 are perforated, as shown, so that two abutting members may be placed end to end and a metal strap 13 applied and bolted thereto, so that the two strips will form one long rigid member. The angle members are then formed by joining two of the long rigid members thus formed by means of the perforated brackets 14, which may be secured to these strips by means of the perforations therein to connect them in as many places as will be found desirable to form a rigid member. These two frame members 11 may then be joined in spaced relation by a plurality of strap members 15, which are placed at desirable and convenient points along the length of the same, to form the body member of the vehicle. To the front end of the body is connected a V-shaped bracket 16, which is so shaped at the ends thereof

that it may be bolted to both strips 12 of the frame members 11, so that these brackets assist in holding these strips in assembled relation. To the lower portion of this bracket is connected a clip 17 by means of a bolt 10, which clip is perforated to receive the front axle 18 carrying the two wheels 19. A pin 20 may be inserted through perforations in the axle on each side of each of the wheels 19 to prevent the movement of the wheels longitudinally of the axle. To prevent longitudinal movement of the axle within the clip 17 a second clip 21 is adapted to embrace the axle and to fit between the legs of the clip 17 and it is provided with a set screw 22, which when tightened, will secure the axle in position. It is seen that the parts thus far described may be assembled, as set forth to provide a rigid body member which has an axle pivotally connected thereto and securely held in position. This pivotal connection is provided about the bolt which joins the bracket 16 to the clip 17.

When the vehicle is provided with a handle or tongue member 23, as shown in Fig. 1, the clip 21 is omitted and the tongue is so connected with the axle that the latter is held against longitudinal movement in the clip 17. The handle member is constructed, as best shown in Fig. 5, by securely bolting, or securing in a convenient way, the rear end of one strip member 12, between the forward ends of two similar strip members. To the forward end of the structure thus formed is then secured a handle bar 24. The two rear strip members are spaced apart by means of a U-shaped bracket 25 securely fastened to the ends of these members and a rigid and strong tongue construction is thus provided. A strap 26, provided with a loop 27, is then secured to the upper one of the rear strip members 12. This loop is designed to be slipped upon the axle between the legs of the U-shaped clip 17 and is so arranged that when the nut is tightened upon the bolt 28, the axle will be tightly gripped by the loop, thus holding the tongue and clip member 17 against longitudinal movement along the axle.

As the rear wheels 29 are of greater diameter than the front wheels, it is necessary to mount the frame member 11 closer to the rear axle than to the front axle, in order that the body of the vehicle will be supported in horizontal position. The same members are used to support the rear end of the body as are used in connection with the front end, but these members are assembled in different relation. The bracket 16′ is secured between the legs of one of the U-shaped clips 17′ and a clip 21′ carrying the set screw 22′ is placed so that its legs will straddle one of the legs of the clip 21′. The axle is then slipped through the aligning openings of the two clips, as best shown in Figs. 2 and 3, and when in the proper position, the set screw is tightened to secure the parts upon the axle. The bracket 17′ will then be supported with its apex below the axle instead of above the axle, as is the case in the front axle construction and this difference will just make up for the difference in diameter of the wheels. The frame of the vehicle will then be supported in horizontal position.

The numerous construction units and elements, which comprise the set from which the toys here shown and others are made, are, when disassembled, designed to be packed or stored in a box for the purpose of handling or shipping. In Fig. 4 of the drawings, I have shown the box 30, in which the toys are packed, supplied with a cover 31. The entire set of elements is packed within the box, so that the appearance of the set when delivered to the customer is accurately represented in the disclosure of Fig. 4.

As shown in Figs. 1 and 3, both the box and the cover therefor are designed and constructed to be used either separately or together as parts of the toy vehicle. In Fig. 1, I have shown a set or body member for the vehicle, provided by mounting the cover 31 upon the frame members 11. In order to space this seat member from the frame, brackets 25, identical with that used in connection with the tongue, are mounted upon the frame members 11 and short strap members 32 are mounted between these brackets and the seat member 31, which is then secured to the frame by bolts 33 passing through the seat 31, the straps 32, the brackets 25 and frame members 11. This provides a broad supporting base for the seat member which, in the form shown, is made of sheet metal which might otherwise have a tendency to bend or twist about the points of support. The exact means of mounting the seat upon the frame may, of course, be varied in details without departing from the spirit of my invention. The seat member, as shown in Figs. 4 and 8, may be provided with strengthening corrugations 34 and is provided with numerous perforations 35 by which it may be connected to other elements in various relations.

In Figs. 3 and 7, I have shown the box 30 mounted upon the vehicle frame to provide a box body for the toy. As shown, the box rests directly upon the frame members 11 and is bolted thereto by bolts 36 passing through perforations in the bottom of the box. The box may, if desired, be mounted upon the frame in the same manner as the seat member 31. The top 31 of the box may be used in connection with the device shown in Fig. 3, if it is desired to provide a cover for the box body.

The bottom of the box is provided with numerous perforations as shown in Fig. 7, to be connected in various ways to the different elements. For instance, by means of the rows of perforations 39, a pair of the strips 12 are designed to be secured to the box to form a wheel barrow body and handles. Various other adaptations and arrangements will, of course, suggest themselves.

While all parts of the toys shown and described herein, except the handle bar 24 and the box 30, are made of metal, the exact material from which the elements are made may, of course, be varied without departing from the scope of the invention.

While I have shown and particularly described a preferred form of my invention, it is understood that I do not wish to limit myself thereto in all its details as many changes and modifications may be made which will fall within the spirit of my invention and within the scope of the appended claims.

What I claim is:

1. In a toy vehicle, a sectional tongue member comprising a plurality of elongated strip members secured together to form one section of said tongue member, and another strip member having one end secured to an end of said section in overlapping relation.

2. In a toy vehicle, a tongue member comprising a pair of strip members secured together to form one section of said tongue, and a single strip member having one end overlapping the ends of the strip members of said section and secured thereto.

3. In a toy vehicle, a tongue member comprising a pair of strip members secured together to form one section of said tongue and a single strip member having one end overlapping the ends of the strip members of said section and clamped between the ends of the strip members.

In witness whereof, I have hereunto set my hand on the 8th day of December, 1920.

ALFRED C. GILBERT.