C. J. DORSEY.

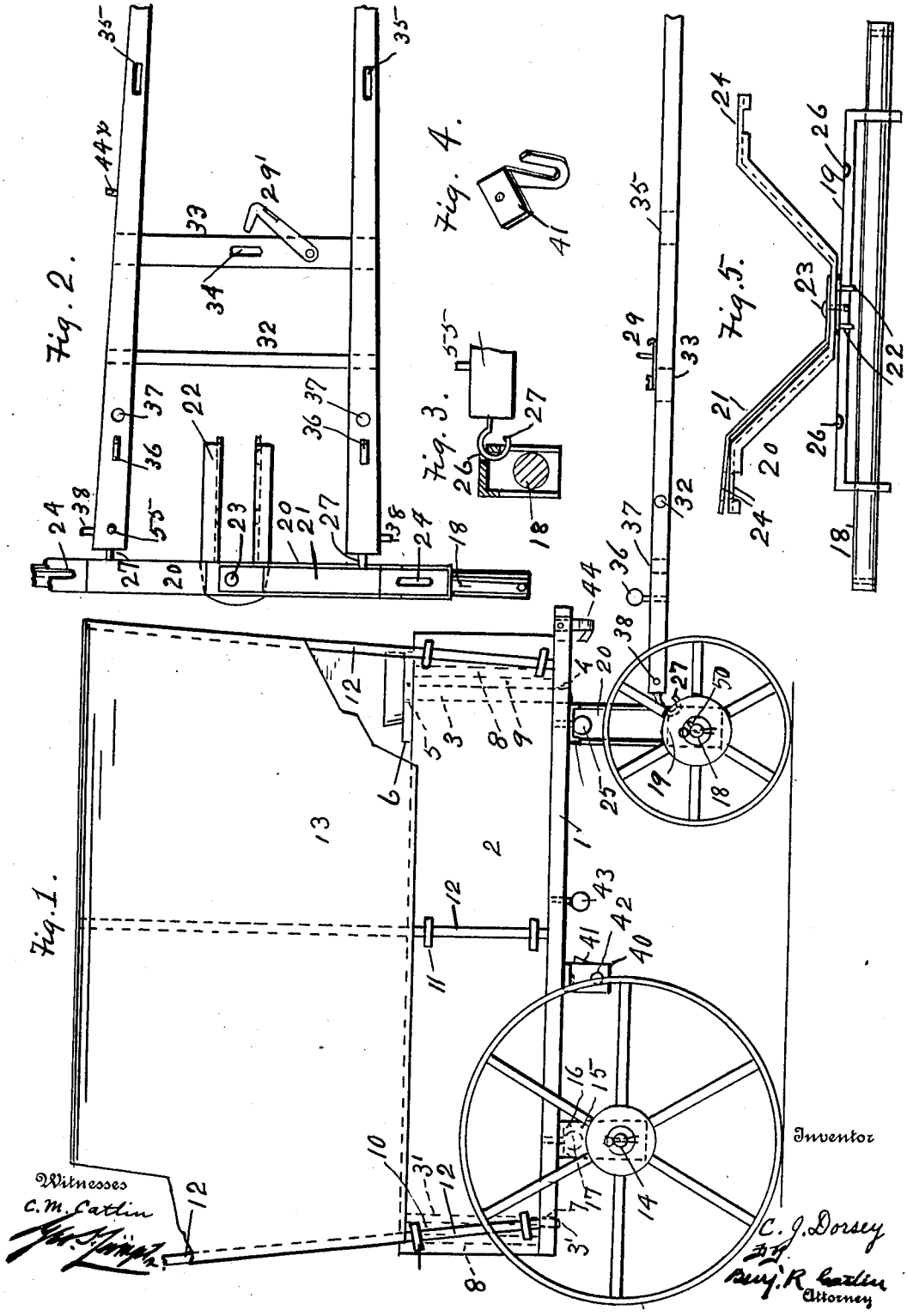
CONVERTIBLE TOY VEHICLE.

APPLICATION FILED MAR. 11, 1911.

1,020,027.

Patented Mar. 12, 1912.

2 SHEETS—SHEET 1.



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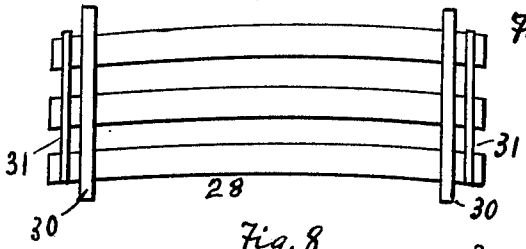


Fig. 6.

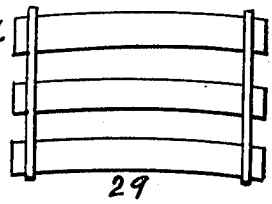


Fig. 7.

Fig. 8

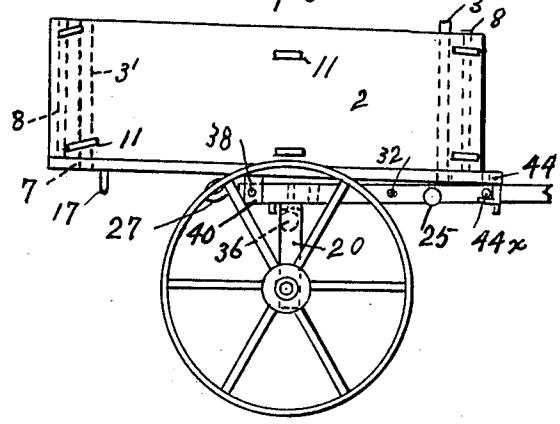


Fig. 9.

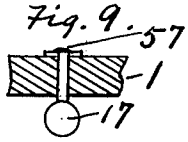
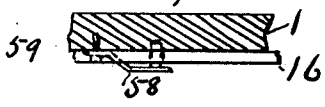


Fig. 10.



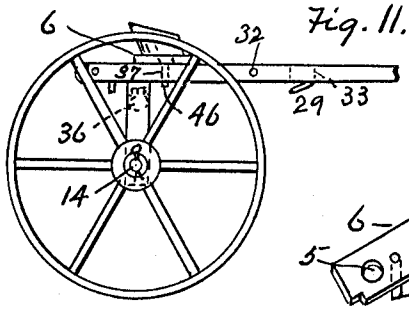
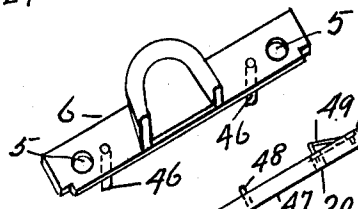


Fig. 11.

Fig. 12.



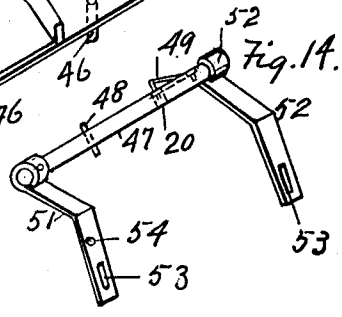
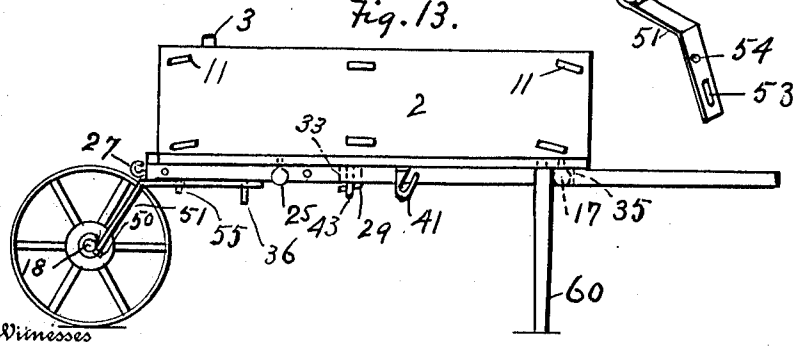


Fig. 14.

Fig. 13.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES J. DORSEY, OF BALTIMORE, MARYLAND.

CONVERTIBLE TOY VEHICLE.

1,020,027. Specification of Letters Patent. Patented Mar. 12, 1912.

Application filed March 11, 1911. Serial No. 613,815.

To all whom it may concern:

Be it known that I, CHARLES J. DORSEY, a resident of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Convertible Toy Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to convertible toy vehicles, the main object of the invention being to provide a wagon, together with a few extra parts, which can be readily rearranged or changed to produce vehicles of a plurality of different types for the amusement and instruction of children.

The invention consists in the construction and devices hereinafter described and particularly pointed out in the claims.

In the accompanying drawing which illustrates the invention and forms part of the specification:—

Figure 1 is a side elevation of a vehicle in the form containing a maximum number of parts; Fig. 2 is a plan view of the thills, front axle and bolster; Fig. 3 is a cross section showing the connection of the thills to the bolster; Fig. 4 is a perspective view of a bearing in the shape of a hook; Fig. 5 is a front elevation of a front axle and bolster; Fig. 6 is a rear elevation of a substitute form of side for the vehicle body (two of these being provided); Fig. 7 is a rear elevation of a forward end to be used in connection with said sides; Fig. 8 is a side elevation of a dump-cart; Figs. 9 and 10 are detail views showing different connecting means; Fig. 11 is an elevation of a sulky; Fig. 12 is a perspective of a vehicle seat; Fig. 13 is an elevation of a wheelbarrow; Fig. 14 is a perspective of a short shaft for a wheelbarrow; and its brackets. Figs. 6 to 14, except 9 and 10, are on a smaller scale than the figures on Sheet 1.

Fig. 1 represents a market wagon or like covered wagon and comprises a body having a bottom 1 to which are removably secured sides 2. To each of said sides on the inner surface is secured a front post 3, which extends above and below the edge of the body side. The lower end of the post fits a hole 4 in the body bottom. The upper end of each of said posts fits a hole 5 in a seat board 6, which is removable. The rear posts 3′, one on each side, are each extended at the lower end to fit into a hole 7 in the body bottom. Parallel to the posts 3, 3′ are cleats 8 which with the posts form ways for holding a front end 9 and a tail-board 10. To the outer surface of each side board are fixed staples 11 adapted to receive and removably hold the ends of wood or other bows 12 which support the canvass or similar cover 13. The rear axle 14 extends through the vertical ends 15 of an inverted channel shaped bolster 16. The horizontal member of said bolster has slots adapted to admit the heads 17 of turnable securing devices, said heads when partly turned securing the body to the bolster.

The front axle 18 supports a bolster 19 including upward extending members 20 adapted to be secured to the wagon bottom. On top of either member 20 may be secured a spring 21.

22 is a draft-pole-securing-device for use when a pole is preferred to thills. The parts 19, 20, 21 and 22 are secured together by a single rivet 23. The outer ends of members 20 and of spring 21 have slots 24 to receive turnable fastening devices 25 which when turned removably secure the body to this bolster. The spring 21 makes the connection tighter but is not essential and is omitted in Fig. 1. Holes 26 are made in the bolster to receive hooks 27 fixed to the rear ends of the thills for pulling the wagon.

As thus far described the toy wagon is complete in one form. By pulling out the bows 12 the vehicle is changed to an open farm or lumber wagon, and the seat may be removed if desired.

By removing the sides and ends of the body and inserting posts in the post holes 7 and 4 in the body bottom a wood wagon is provided. Suitable posts for the purpose are denoted by 60, Fig. 13, in which the same parts form legs of the wheelbarrow.

Certain extra parts, that is, parts not found in the wagon having the maximum number of parts, are provided which come into use together with more or less of the parts embodied in said wagon, in changing the toy to represent a different type, for example, the posts 60. Also the two wagon sides 28, such as used in trucks, and the end 29, are provided and can be substituted for

the board sides and front. The truck sides have vertical posts 30 adapted to fit the same holes in the body bottom as the posts 3, 3′ or 60. They also have cleats 31 to form ways for the front end 29 and, if desired, for a tail-board.

In all the above described vehicles the thills are connected thereto in the same way, that is, by the hooks 27. In the vehicles of Figs. 8, 11 and 13, the same thills are used but in a different manner. The two thills are connected by cross bars 32 and 33, the latter having a pivoted hook 29′ and a central slot 34. The thills also have longitudinal slots 35 in advance of bar 33, and turnable fastening devices 36, holes 37, pivot pins 38, a vertical pin 55, and a catch pin $44^{\times}$. The parts designated 34 to $44^{\times}$ are provided to adapt the same thills to other vehicles, as described below. For a like reason the body bottom has certain additional parts, namely, two bearing brackets 40 and 41 situated opposite each other a little behind the center of the bottom, the first bracket having a hole 42 and the latter bracket being in the form of an open hook. The bottom also has a fastening device 43 near the center of the bottom, and a pivoted catch hook 44 situated near a front corner of the body bottom or floor.

By separating the body, wheels and axles, and the thills, the rear wheels with their axle and bolster, the body and thills, can be rearranged to form a dump cart, as shown in Fig. 8. The thills are inverted, as compared with Fig. 1, and the fastening devices 36 are inserted through the slots in the bolster and turned to secure the thills to the wheels and bolster. The body is placed thereon with the pivot pins 38 engaging the brackets 40 and 41 (the pins being easily inserted because of the hook form of bracket 41), and the catch hook 44 engaging its pin $44^{\times}$. Upon disengaging the hook the body can be tilted to dump.

By simply removing the body of the cart and substituting the seat 6, as shown in Fig. 11, a sulky results. Said seat board has pins 46 which in the sulky fit the holes 37 in the thills to secure the seat in place.

To form a wheelbarrow one of the front wheels is used on a short extra shaft 47 which has a fixed wheel stop 48, and a yielding stop 49 the free end of which enters a hole in the shaft. The wheel hub is provided with an interior longitudinal groove 50 so that the hub can be pushed onto the shaft and then held on by stop 49 which expands as the wheel passes into place. Said wheel and axle are connected to the thills, which form the wheelbarrow handles, by brackets 51, 52, the former fixed to the shaft and the latter removable to permit the wheel to be slipped on. Said brackets have slots 53 to receive fastening devices, and one has a hole 54 to receive the pin 55 on one of the thills to prevent lateral movement of the brackets. The fastening devices 25 are far enough apart to permit the thills to pass between them, and the devices 17 enter the slots 35 of the handles. In order that the parts may fit just as described the wagon body is turned end to end as compared with its position in other figures. The fastening eyelet or device 43 on the wagon bottom is passed through the slot 34, and hook 29′ engaged therewith to lock the body to the wheel barrow handles. Legs are denoted by 60, which have before been described as posts of a wood wagon, in which capacity they fit the same holes, but enter opposite ends of the holes.

The parts called turnable fastening devices in small or low grade toys may be simple screw eyes, but it is preferred to employ flat heads with smooth shanks passing through the bottom 1, or the like, and through a washer, and upset as at 57 but not so as to prevent turning the devices at will. Other forms of fastening devices may be used. In Fig. 10 the bolster 16 and the body bottom 1 are shown connected by spring catches 58, fixed to the bottom at 59 and each carrying a pin which can be engaged with a hole in the bolster and in the bottom and disengaged therefrom at will.

The body bottom, the thills, and one or more of the wheels, are found in all the described arrangements, except that the sulky omits the said bottom.

The invention is not limited to the described devices for connecting or supporting the several parts, since they can be varied to a considerable extent within the scope of the improvement.

I consider it broadly new with me to provide an interesting and educational toy in the form of a convertible vehicle, in substantially the manner described, wherein a body, thills and wheels with a small number of extra parts can be combined to form such a variety of types of vehicles.

The device requires skill to put it together in all its forms and hence is of interest to children, and it is educational in that it familiarizes them with several kinds of carts and wagons.

Having described the invention what I desire to cover by Letters Patent is:—

1. A convertible toy wagon comprising a body with removable sides, a removable cover, running gear, thills, two distinct connecting means on the thills, and two distinct coöperating connecting means on the wagon, as and for the purpose set forth.

2. A convertible vehicle comprising a body having removable sides whereby sides of a different type can be substituted, wheels, and thills, with a plurality of distinct means for connecting them to form ve-

hicles, and a plurality of distinct coöperating connecting means on other parts of the vehicle.

3. A convertible toy vehicle comprising a body, wheels, means for connecting the body to all or a part of the wheels as desired, thills, and means for connecting the parts to form vehicles of different types.

4. A toy device of the character described comprising a body bottom, thills, means on said bottom, and means on said thills, whereby they can be differently associated in different types of vehicles.

5. A toy device of the character described comprising a body bottom, wheels, axles, bolsters, thills, connecting means between said thills and bolster, means on said bottom and means on said thills whereby the parts can be differently associated, as set forth.

6. A toy vehicle comprising thills having draft-connecting devices directly on their ends, and other draft-connecting devices at said ends but on sides thereof, combined with distinct coöperating connecting devices on the vehicle.

7. A toy vehicle body comprising means for securing it to front and rear wheels, distinct means for securing said body to a single pair of wheels, combined with a common drawing device, as set forth.

8. A toy vehicle body comprising means for securing it to front and rear wheels, distinct means for securing said body to a single pair of wheels, combined with thills, and a plurality of coöperating means on the thills and on other parts of said vehicle for differently connecting them to form vehicles of different types.

9. A toy vehicle body, a pair of wheels, an axle and bolster, a pair of thills having a plurality of distinct means for connecting said thills for draft, coöperating connecting means on the vehicle, means for pivoting the body to the thills, and a device for holding the body from tilting and for releasing it at will.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

CHARLES J. DORSEY.

Witnesses:
GEO. S. LIVINGSTON,
C. M. CATLIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."