

Jan. 19, 1926.

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L. R. SCHAFFNER

COASTER WAGON

Filed August 21, 1922

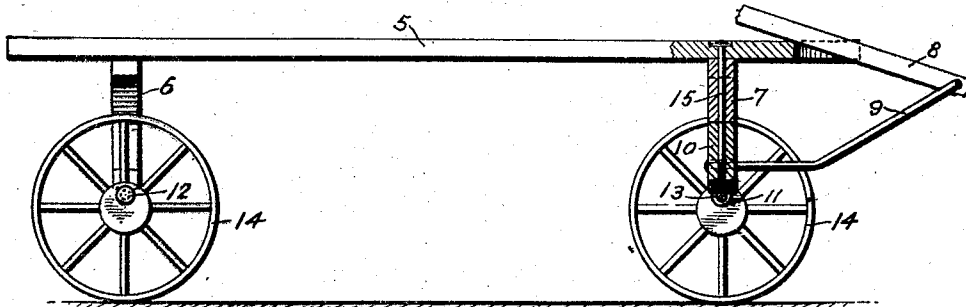


Fig. 1.

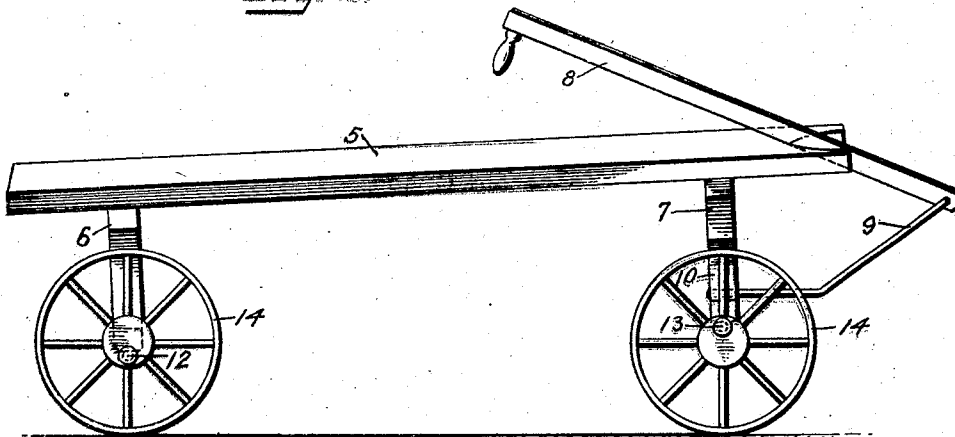


Fig. 2.

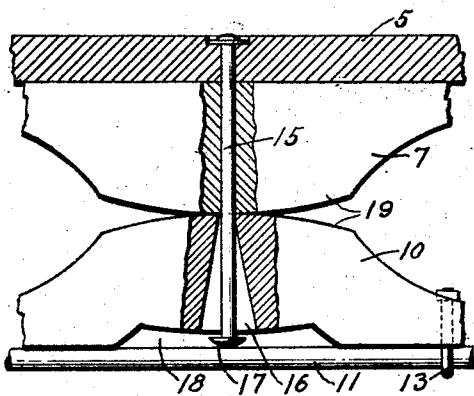


Fig. 4.

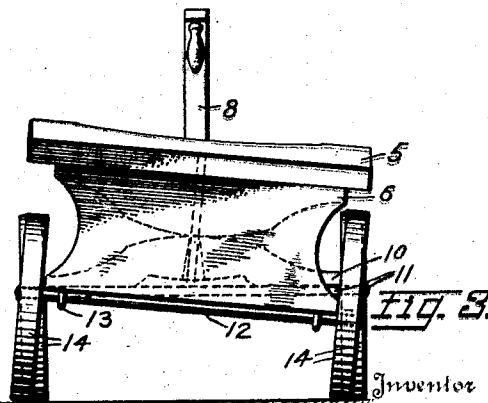


Fig. 3.

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# UNITED STATES PATENT OFFICE.

LEON R. SCHAFFNER, OF FORT DODGE, IOWA.

COASTER WAGON.

Application filed August 21, 1922. Serial No. 533,165.

*To all whom it may concern:*

Be it known that I, LEON R. SCHAFFNER, a citizen of the United States, residing at Fort Dodge, in the county of Webster and State of Iowa, have invented certain new and useful Improvements in Coaster Wagons, of which the following is a specification.

This invention relates to coaster-wagons. The main object of this invention is to provide an improved wheeled toy or coaster-wagon which has its wheels so arranged that they impart an infinite number of uncertain movements to the body or platform carried by the wheels, so that the child or person who is coasting must be kept on the alert for any unexpected movement, so as to prevent being dislodged from the platform, thereby cultivating alertness, skill and ability in the user.

Further objects and advantages will be pointed out or implied in the following details of description in connection with the accompanying drawings in which:

Figure 1 is a side view of my improved coaster-wagon, principally in full elevation, but partly in vertical section, the section being taken through the axis of the king-bolt.

Figure 2 is a view in side elevation, illustrating an effect produced by the eccentric bearings or axes of three of the wheels being in a different position from that of the other wheel.

Figure 3 is a rear view of the coaster having its wheels arranged as illustrated in Figure 2.

Figure 4 is an enlarged fragmental view showing how I may construct the front axle-beam so as to permit of a rocking motion thereof with relation to the bolster and body of the coaster.

Referring to these drawings in detail, in which similar reference characters correspond with similar parts throughout the several views, the invention consists principally in the manner in which the wheels are mounted, in connection with the construction and arrangement of parts, as will now be fully described.

The platform or body 5, rear axle-beam 6, front bolster 7, tongue 8 and tongue connection 9 are of ordinary construction and will not be described in detail. The front axle-beam 10 may be of ordinary construction, or may be of the novel construction

illustrated in Figure 4, and indicated by dotted lines in Figure 3. Front and rear axles 11 and 12 are secured to the front and rear beams 10 and 6, respectively, by any appropriate means, one means being indicated at 13 and may consist of an eye bolt or U-bolt which extends into or through the axle-beam. These axles may be either rotary or stationary with respect to the axle-beam, and on each end of each axle is journaled a wheel 14, each of these wheels having its bearings eccentric to the wheel-center, as clearly shown in the drawings. In contrary distinction to previously known toys or vehicles having their wheels eccentrically mounted, the present device has each of its four wheels mounted to rotate independently of the others, and therefore, there is no certainty of movement of either wheel with respect to the others, and the user cannot foretell what peculiar or unexpected movements will proceed one another, so that the occupant of the coaster is trained to be prepared for emergencies.

Where an ordinary front axle-beam is employed, there is little or no rocking movement thereof with respect to the bolster 7, and therefore, there will be times when the coaster runs on three wheels only, the other wheel being temporarily suspended in the air; then, as the coaster proceeds, the suspended wheel will suddenly come in contact with the road or street, and another of the wheels may be raised into the air. This form may be preferable for exceptionally active and hardy boys, but girls and younger boys, the form illustrated in Figure 4 may be preferable, as this form enables all the wheels to travel on the ground at all times, so that they produce a rocking effect of the platform while eliminating the jolts and jars produced by the suspended wheel suddenly coming in contact with the road.

Referring now specifically to the structure illustrated in Figure 4, the king-bolt 15 extends down through the bolster 7 and through a downwardly diverging slot 16, terminating in a head 17 which prevents the front axle-beam from being disconnected. The lower central portion of the beam 10 is cut away to provide clearance for the head 17. The lower central portion of the bolster 7 and beam 10 are evenly curved to provide rockers which are seated against one another, and therefore, the

front axle can rock with relation to the bolster 7, and the latter can rock on the axle-beam 10. If desired, the width of the slot 16 can be limited, so that there may be a slight raising of the wheels from the road in the manner previously described. Although the operation of such devices is generally known, it may be well to consider the operation of this improved coaster in connection with the drawings. For instance, Figure 1 shows the device with its wheels in the position they naturally assume when the coaster is first placed upon the ground or road, that is, the circle-centers being directly under the axial centers. So long as the coaster is steered straight on a level surface the platform 5 stays level but has an up-and-down movement; but when the front axle returns about its pivotal center or king-bolt 15, the front wheels change their relative positions so that one end of the axle 13 is low and the other high. The turning of the front wheels also causes the rear part of the coaster to turn, and this changes the relative positions of the rear wheels and causes their axle to incline. Moreover, when the coaster is used in the ordinary way, that is, without permitting the wheels to assume their center of gravity, they are likely to assume the position illustrated in Figure 3 or any unexpect-

ed or non-predetermined position, and unlimited number of unexpected movements will be imparted to the platform 5 even though the coaster be guided in a substantially straight course.

It is not intended to limit this invention to the construction and arrangement of parts as here illustrated, but changes may be made within the inventive ideas as implied and claimed.

What I claim as my invention is:

The combination with the platform of a coaster of a front bolster therefore, said bolster being rigidly secured to the underside of said platform and having its free edge provided with a curved rocker edge, an axle beam arranged in juxtaposition to the said front bolster, the same being provided with a curved rocker edge adapted to abut the curved edge of the bolster, a king pin rigidly carried by the front bolster and loosely extending thru a downwardly diverging slot formed in the axle beam whereby pivotal and rocking motion is permitted between the said front bolster and axle beam, an axle carried by said axle beam and wheels eccentrically mounted on the said axle.

In testimony whereof I affix my signature.

LEON R. SCHAFFNER.